Agenda Item D.1
Discussion/Action item
Meeting Date: September 2, 2008

TO: Mayor and Councilmembers

FROM: Dan Singer, City Manager

CONTACT: Steve Wagner, Community Services Director
Rosemarie Gaglione, Capital Project Division Manager

SUBJECT: Gap Fire Pre-Winter Storm Emergency Response Plan

RECOMMENDATION:

1. Receive a presentation on the Gap Fire Pre-Winter Storm Emergency Response Plan; and

2. Adopt Resolution No. 08-___ entitled "A Resolution of the City Council of the City of Goleta, California Proclaiming a Local Emergency to Exist in the Extreme Peril Posed by the Results of the Gap Fire and Delegating Emergency Authority to the City Manager to Procure Necessary Supplies, Equipment and Services; and

3. Adopt Resolution No. 08-___ entitled "A Resolution of the City Council of the City of Goleta, California Adopting a City Policy for Procurement of Supplies, Equipment and Services for Disaster Projects; and

4. Adopt Resolution No. 08-___ entitled "A Resolution of the City Council of the City of Goleta, California Amending the City of Goleta Operating and CIP Budget for Fiscal Year 2008/2009 Related to Winter Storm Preparation Projects."

BACKGROUND:

On July 1st, 2008 a forest fire was started off of West Camino Cielo above the City of Goleta. The fire, later known as the Gap Fire, grew quickly in size over the next several days as fire personnel struggled to gain control in the steep mountain terrain. By the time the fire was contained 27 days later it had burned approximately 9,500 acres of federal and privately owned lands in the coastal hills above the City of Goleta.

The Gap Fire burn area includes portions of the Tecolote, Winchester, Tecolotito, Los Carneros, San Pedro, Las Vegas and the San Jose watersheds. Each of these watersheds drains through the City of Goleta. The burned watershed conditions are expected to significantly increase the amount of storm water runoff, erosion and debris

during winter storm events which greatly increases the chance of flooding of downstream developed areas within and adjacent to the City of Goleta.

A pre-winter storm emergency response plan has therefore been developed to reduce the flood threat associated with the Gap Fire burn area and is presented herein for Council consideration. The plan presents a comprehensive approach to watershed assessment, hazard mitigation, winter storm operations, public information and community outreach. It describes, in detail, the steps that City staff conducted to assess the potential post fire impacts associated with the Gap Fire burn area and identifies specific mitigation measures that will be implemented to reduce the threat of flood damage to developed properties located within the City of Goleta.

The Santa Barbara County Public Works Department has developed a similar emergency response plan that documents additional pre-winter storm mitigation measures that will be implemented within the City of Goleta, the City of Santa Barbara and in the adjacent unincorporated areas of the County. A copy of the County's Emergency Watershed Protection Plan is attached to this report. The City of Goleta's Gap Fire Pre-Winter Storm Emergency Response Plan was developed in cooperation with County Public Works Department staff and is meant to supplement the County's Emergency Watershed Protection Plan.

DISCUSSION:

City staff has worked closely with United States Forest Service (USFS) and County of Santa Barbara personnel since before the Gap Fire was contained to assess the potential impacts associated with the Gap Fire burn area. During this time the USFS assembled a Burned Area Emergency Response (BAER) team, which is a multi agency group of specialists in a variety of disciplines, to compile information on the burned watersheds and assess potential impacts to downstream developed communities. Staff from the County of Santa Barbara, City of Santa Barbara and City of Goleta participated in several BAER team meetings to assist in this process. A Burned Area Report summarizing the information compiled by the BAER team was developed. A copy of the draft Gap Fire BAER report is included as an attachment to the emergency response plan. The BAER report identifies threats to life and property from increased runoff, flooding, debris flows, erosion, sedimentation and landslides in the burn area and downstream in the City of Goleta.

Given the findings of the BAER report and increased potential for debris flows and flooding during winter storm events, City staff conducted field inspections of all affected roadway bridges and culverts located downstream of the Gap Fire burn area. The information gathered during the inspections was used to determine relative flood risks due to the increased runoff and debris flows expected this winter. Based on this information, a list of recommend pre-winter storm mitigation projects was identified.

Since the City of Goleta is responsible for the maintenance and operation of all City roadway bridges and culverts over the creek corridors and channels, the City's pre-winter storm mitigation measures are primarily related to its bridges and culverts.

The pre-winter storm mitigation measures identified in the City's emergency response plan are listed below:

1. **San Pedro Creek Culvert at Calle Real**: This project includes modifications to the existing concrete splitter wall and the removal and replacement of the existing concrete bridge rail/parapet wall at the upstream face of the culvert.

2. **Calle Real from Valdez Avenue to Vega Drive**: This project includes the lowering of the roadway on Calle Real between Valdez Avenue and Vega Drive in order to improve the overland flow conditions associated with the San Pedro Creek Culvert at Calle Real.

3. **Las Vegas Creek at Stow Canyon Road**: This project includes the construction of a concrete splitter wall at the upstream face of the culvert to divert debris flows and reduce the potential for plugging during storm events.

4. **Winchester Canyon Creek at Winchester Canyon Road:** This project includes the placement of large rock rip rap at the downstream end of the culvert for erosion control.

5. **Aerial Hydro Mulching in Selected Upland Areas:** This project consists of the aerial application of hydro mulch on selected hillsides above the City of Goleta. This is a joint project between Santa Barbara County, the City of Santa Barbara and the City of Goleta. The project is funded through the Natural Resources Conservation Service (NRCS) in a 75% federal 25% local split.

6. **Sandbag Distribution Center:** Sandbags will be made available to the public at Fire Station No. 14 on Los Carneros Road. This is a joint effort with the County of Santa Barbara.

In order to complete construction of the recommended mitigation measures before winter, staff recommends adoption of two resolutions. The first resolution proclaims a state of emergency due to flood threat associated with the Gap Fire burn area, and delegates emergency authority to the City Manager to procure necessary supplies, equipment and services. The second resolution is for adoption of a Procurement Policy for Disasters. Adoption of these two resolutions would allow for the expedited bidding award and construction of the proposed emergency mitigation measures prior to the onset of winter. A copy of both resolutions is attached to this report.

The County Flood Control District is responsible for the maintenance and operation of all major flood control facilities located within the City of Goleta. This includes but is not limited to all creek corridors and flood control channels. The pre-winter storm mitigation measures included in the County's emergency watershed protection plan include channel clearing, installation of vegetation control structures, excavation of the sediment basins in and around the Santa Barbara Airport and aerial hydro mulching as described above.

The City's emergency response plan also includes an aggressive public information program to inform City residents of the flood threat associated with the Gap Fire burn area. A series of public meetings will be held and information regarding the City's pre-winter emergency response plan will be put on the City's webpage, scroll, newsletter, as well as other local media outlets.

Emergency Stockpiling Permit

A separate but related pre-winter emergency response action the City of Goleta has taken is the issuance of an emergency permit for stockpiling on the Willow Springs property. On Monday, August 26th, the Director of Planning & Environmental Services issued an Emergency Permit for the replenishment of a stockpile at North Willow Springs, to accommodate the deposition of sediment debris from basins located throughout the Goleta Valley watershed. Those materials need to be removed, hauled away and deposited at a safe, controlled stockpile site, so as to create capacity for fire debris that will be naturally deposited in the sediment basins and creek beds during the coming winter rains.

The issuance of the Emergency Permit was based on due diligence provisions and standards prescribed in the Inland Zoning Ordinance under Section 35-322. The Emergency Permit provides a 60-day term, plus the potential of a 30-day extension, based on emergency necessity, the permit compliance record and a good cause finding by the Director. The Emergency Permit includes 19 conditions of approval that cover such matters as location, footprint and size of the stockpile, controls on source of sediments, methods to inhibit dust generation and to prevent off-site transportation of dust, stormwater best management practices, and protection measures for nearby biological and archeological resources. Controls on hours of operation, fencing and gates and on and off-site access routes are also applied. Most notably, a follow-up application for a Land Use Permit must be filed with the City within 30-days. That permit process will address the term by which the stockpile is allowed to remain on-site, as well as measures to landscape and screen it. A copy of the Emergency Permit is attached to this report.

STRATEGIC PLAN

The work effort associated with responding to the Gap Fire or other significant emergency response efforts are not included in the City's current strategic plan. The amount of staff time and resources that have been and will be dedicated to implementing the Gap Fire Emergency Response plan will likely impact the progress of other ongoing City efforts. However, every effort will be made to minimize such impacts to other priority projects.

ALTERNATIVES

The City Council may elect not to adopt the Gap Fire Emergency Response plan and emergency resolutions as recommended in this report or may elect to adopt a revised

plan and/or resolution. Delaying adoption of an emergency response plan and resolution could impact the City's ability to completed needed flood mitigation measures before the onset of winter rains.

FISCAL IMPACTS

The FY 2008-09 budget does not include any appropriations for the proposed pre-winter storm emergency response measures identified in the emergency response plan. As such, additional budget appropriations for both revenues and expenditures will be required should the City Council endorse the items identified by staff as necessary mitigations.

Preliminary cost estimates for the proposed mitigation measures and public information program identified in the Pre-Winter Storm Emergency Response Plan have been developed. These costs along with recommended funding sources are summarized in the following table:

		Recommended Funding Source			
Project	Estimated Total Cost	FEMA	NRCS	Measure D	General Fund
Winchester Canyon Road Culvert Repair @ Winchester Canyon Creek	$200,000	$172,600		$27,400	
Calle Real Culvert Modifications @ San Pedro Creek	$30,000		$22,500	$7,500	
Calle Real Overland Escape Improvements from Valdez to Vega	$75,000			$75,000	
Stow Canyon Road Culvert modifications at Las Vegas Creek	$15,000			$15,000	
Hydro Mulching of Selected Upland Areas	$70,000				$70,000
Public Information Program	$10,000				$10,000
Sand Bag Distribution Center	$5,000				$5,000
Totals	**$405,000**	**$172,600**	**$22,500**	**$124,900**	**$85,000**

A resolution appropriating funds as shown in the above table is attached to this report and is recommended for approval.

The above costs are for pre-winter storm mitigation measures only. The costs associated with emergency debris removal operations this winter will vary based on the magnitude and frequency of the flood event(s). Based on previous flood events, the City could expend up to an estimated $1,000,000 in emergency debris removal costs this winter. A significant amount of these emergency debris removal expenditures would be reimbursed in the event of a State for Federally declared emergency.

SUMMARY

The Gap Fire burn area poses a significant threat to the City of Goleta. Increased storm water runoff, debris production and erosion during winter storm events are expected to occur. City staff has worked closely with Santa Barbara County and City of Santa Barbara staff to develop a comprehensive pre-winter emergency response plan to reduce the flood threat associated with the Gap Fire burn area; however, implementation of all the proposed mitigation measures identified in the City of Goleta's and County of Santa Barbara's emergency response plans will not completely eliminate the threat of flooding this winter. In the coming months City staff will continue to work closely with other agencies to inform the public on how they can best prepare for the coming winter rainy season.

Submitted By:	Reviewed By:	Approved By:
_____	_____	_____
Steve Wagner Community Services Director	Michelle Greene Administrative Services Director	Daniel Singer City Manager

ATTACHMENTS:

1. City of Goleta Gap Fire Pre-Winter Storm Emergency Response Plan, and Draft Burned Area Report
2. County of Santa Barbara Gap Fire Emergency Watershed Protection Plan
3. Emergency Permit No. 08-158-EMP
4. Resolution No. 08 - __ entitled "A Resolution of the City Council of the City of Goleta, California Proclaiming a Local Emergency to Exist in the Extreme Peril Posed by the Results of the Gap Fire and Delegating Emergency Authority to the City Manager to Procure Necessary Supplies, Equipment and Services."
5. Resolution No. 08-___ entitled "A Resolution of the City Council of the City of Goleta, California Adopting a City Policy for Procurement of Supplies, Equipment and Services for Disaster Projects."

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ATTACHMENT 1

City of Goleta Gap Fire Pre-Winter Storm Emergency Response Plan, and Draft Burned Area Report

Gap Fire

Pre-Winter Storm

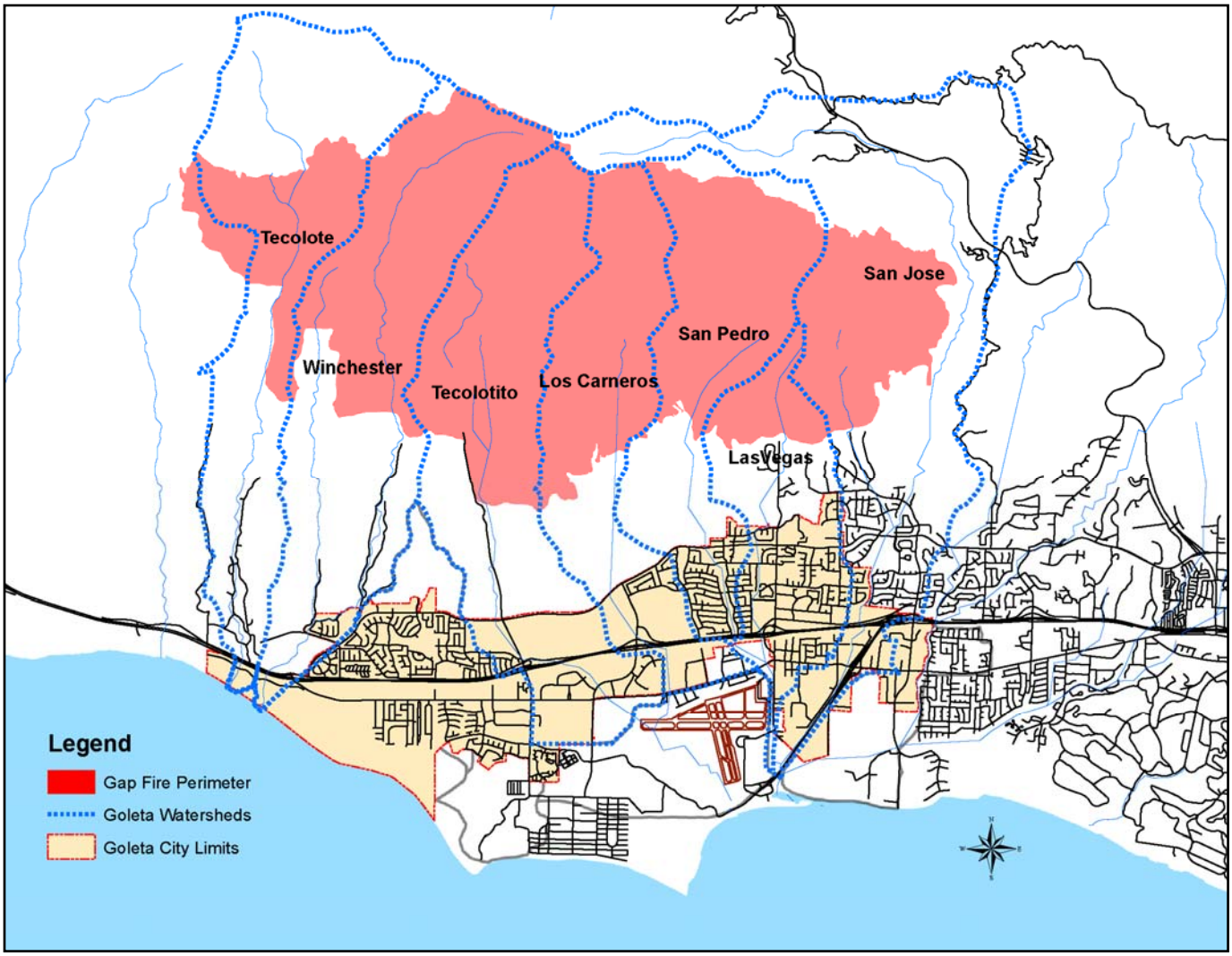
Emergency Response Plan

September 2008

Gap Fire Pre Winter Storm Emergency Response Plan

Introduction

On July 1, 2008 a forest fire was started off of West Camino Cielo above the City of Goleta. The fire, later known as the Gap Fire, grew quickly in size over the next several days as fire personnel struggled to gain control in the steep mountain terrain. By the time the fire was contained 27 days later it had burned approximately 9,500 acres of federally and privately owned lands in the coastal hills above the City of Goleta. The perimeter of the Gap Fire in relation to the City of Goleta is shown below.



The watersheds above the City had not burned for some 50 years prior to the Gap Fire. This dense vegetative cover, along with shifting winds, created extremely hot fire conditions over a majority of the burn area. When forest fires burn at high temperatures, the existing vegetation is

completely burned off and the underlying soil becomes impenetrable to water. These burned watershed conditions can significantly increase the amount of storm water runoff, erosion and debris during storm events and greatly increases the chance of flooding of downstream areas.

The Gap Fire burned through portions of the Tecolote, Winchester, Tecolotito, Los Carneros, San Pedro, Las Vegas and the San Jose watersheds. Each of these watersheds drains through the City of Goleta. The amount of watershed areas affected by the Gap Fire is shown in the following table.

Watershed	Acres Burned	% of Watershed
Tecolote	984	27%
Winchester	2103	54%
Tecolotito	1892	64%
Los Carneros	1508	73%
San Pedro	1535	63%
Las Vegas	252	24%
San Jose	1080	23%

The Gap Fire Pre-Winter Storm Emergency Response Plan presents a comprehensive approach to watershed assessment, hazard mitigation, winter storm operations, public information and community outreach. The Plan describes in detail the steps that City staff conducted to assess the potential post-fire impacts associated with the Gap Fire burn area and identifies specific mitigation measures that will be implemented to reduce the threat of flood damage to developed properties located within the City of Goleta.

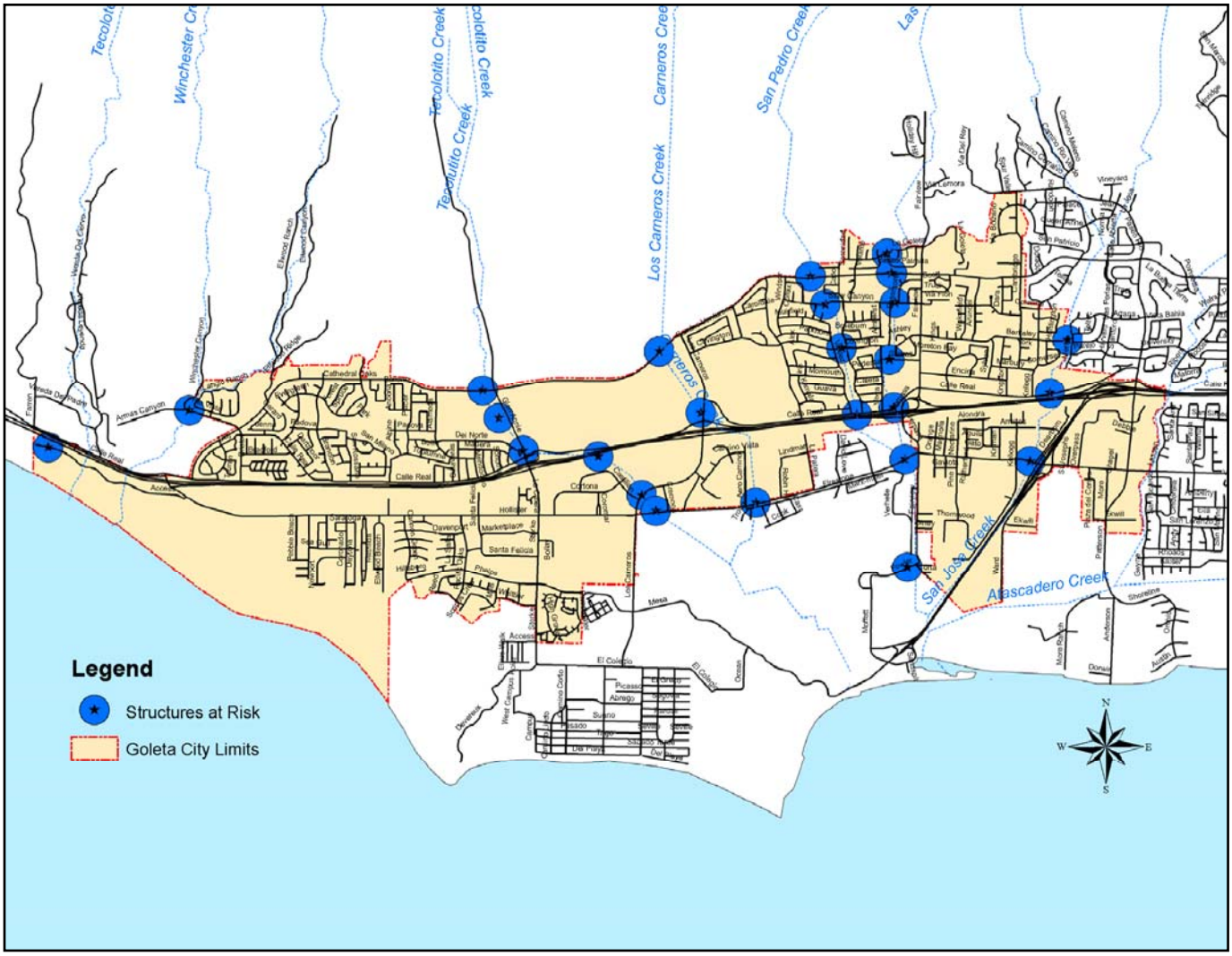
The Santa Barbara County Public Works Department has developed a similar emergency response plan that documents additional pre-winter flood mitigation measures that will be implemented within the City of Goleta, the City of Santa Barbara and in the adjacent unincorporated areas of the County. The City of Goleta's Gap Fire Pre-Winter Storm Emergency Response Plan was developed in cooperation with County Public Works Department staff and is meant to supplement the County's Emergency Watershed Protection Plan.

Post-Fire Impact Assessment

Since the Gap Fire originated on Forest Service lands the United States Forest Service (USFS) took a lead role in directing the overall fire suppression activities. While the fire was still burning the USFS assembled a Burned Area Emergency Response (BAER) team, which is a multi agency group of specialists in a variety of disciplines. The focus of the BAER team was to compile information on the burned watersheds and assess potential impacts to downstream developed communities. Staff from the County of Santa Barbara, City of Santa Barbara and City of Goleta participated in several BAER team meetings to assist in this process. A Burned Area Report summarizing the information compiled by the BAER team was developed. A copy

of the draft Gap Fire BAER report is included as an attachment to this plan (Attachment 1). The BEAR report identifies threats to life and property from increased runoff, flooding, debris flows, erosion, sedimentation and landslides in the burn area and downstream in the City of Goleta.

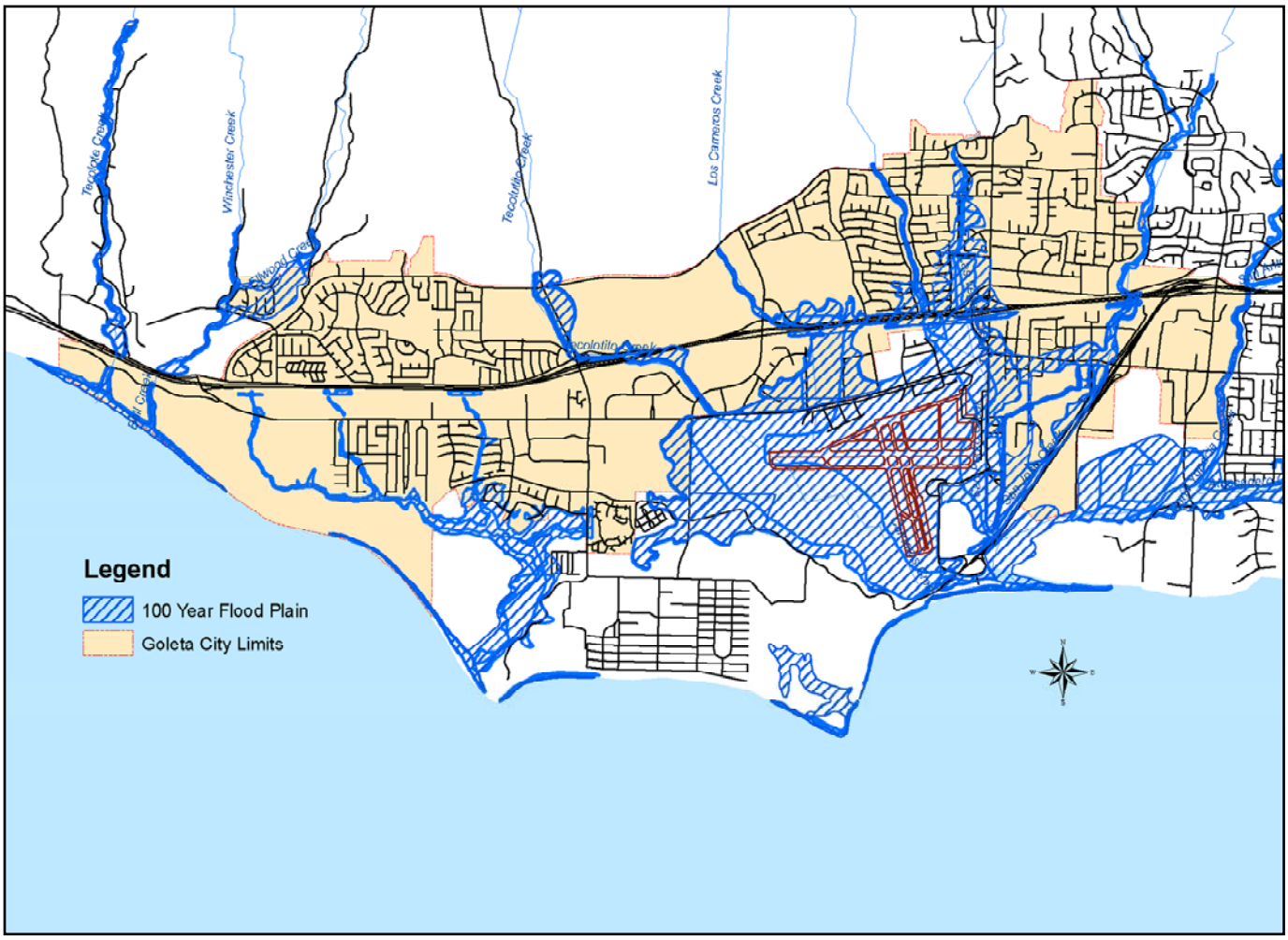
Given the findings of the BAER report and increased potential for debris flows and flooding during winter storm events, City staff conducted field inspections of all affected roadway bridges and culverts located downstream of the burn area. Photos were taken to document the existing conditions and data was collected relating to each bridge structure (opening size, inlet and outlet configuration, sedimentation levels, vegetation, scour etc). The locations of the affected bridges inspected during this process are shown below.



A Qualitative Risk Analysis Matrix was then developed to determine the relative risk levels and recommended pre-winter mitigation measures at all affected roadway bridges and/or culverts. The risk matrix took into account watershed burn severity, risk of plugging, risk of damage, and

sediment loading. A copy of the risk matrix is included as an attachment to this plan (Attachment 2).

Staff also reviewed County Flood Control reports on previous flood events to determine which areas within the City are likely to be impacted due to the increased runoff associated with the Gap Fire. A map showing the Federal Emergency Management Agency's (FEMA's) 100 Year floodplain areas subject to flooding is shown below.



City of Goleta Pre-Winter Storm Mitigation Measures

The City of Goleta is responsible for the maintenance and operation of all City roadway bridges and culverts over the creek corridors and channels. As such, the City's pre-winter storm mitigation measures are primarily related to its bridges and culverts.

Based on the information gathered from the BAER report, historical flood reports, bridge inspections and the bridge structure risk analysis described above, the following pre-winter storm mitigation measures are recommended:

1. **San Pedro Creek Culvert at Calle Real**: This project includes the following culvert modifications:

    a. Extend the existing concrete splitter wall at the upstream face of the culvert to divert debris flows and reduce the potential for plugging during storm event.
    b. Remove the existing concrete bridge rail/parapet wall at the upstream face of the culvert and replace it with an open steel pipe guard rail to improve overland flow paths onto Calle Real.

2. **Calle Real from Valdez Avenue to Vega Drive**: This project includes the lowering of the roadway on Calle Real between Valdez Avenue and Vega Drive in order to improve the overland escape conditions associated with the San Pedro Creek Culvert at Calle Real.

3. **Las Vegas Creek at Stow Canyon Road**: This project includes the construction of a concrete splitter wall at the upstream face of the culvert to divert debris flows and reduce the potential for plugging during storm events.

4. **Winchester Canyon Creek at Winchester Canyon Road:** This project includes the placement of large rock rip rap at the downstream end of the culvert for erosion control.

5. **Aerial Hydro Mulching in Selected Upland Areas:** This project consists of the aerial application of hydro mulch on selected hillsides above the City of Goleta. This is a joint project between Santa Barbara County, the City of Santa Barbara and the City of Goleta. The project is funded through the Natural Resources Conservation Service (NRCS) in a 75% federal, 25% local funding split.

6. **Sandbag Distribution Center:** Sandbags will be made available to the public at Fire Station No. 14 on Los Carneros Road. This is a joint effort with the County of Santa Barbara.

County of Santa Barbara Pre Winter Storm Emergency Response Measures

The County Flood Control District is responsible for the maintenance and operation of all major flood control facilities located within the City of Goleta. This includes, but is not limited to, all creek corridors and flood control channels.

The County's Emergency Watershed Protection Plan identifies the following pre-winter storm mitigation measures to reduce the risk of flooding:

1. **Emergency Stream Clearing**: Approximately 16 miles of creek channels upstream and throughout the City of Goleta will be cleared of obstructive vegetation.

2. **Excavation of Sediment Basins**: The existing sediment basins on Tecolotito, Los Carneros, San Pedro and San Jose creeks in and adjacent to the Santa Barbara Airport will be excavated.

3. **Installation of Vegetation Control Structures**: Vegetation/debris control structures will be installed at the following locations:

    a. Ellwood Creek upstream of Langlo Ranch Road
    b. Tecolotito Creek upstream of Cathedral Oaks Road
    c. Los Carneros Creek upstream of Los Carneros Road
    d. San Pedro Creek upstream of Cathedral Oaks Road
    e. Las Vegas Creek upstream of Cathedral Oaks Road

4. **Emergency Protective Measures:** This project includes the placement of temporary flood walls at San Pedro Creek upstream of Calle Real and at Los Carneros Creek upstream of Los Carneros Road.

5. **Aerial hydro mulching of selected upland areas:** This joint project between the County of Santa Barbara, City of Santa Barbra and City of Goleta is the same as stated above.

6. **Sandbag Distribution Center:** This joint project between the County of Santa Barbara and the City of Goleta is the same as stated above.

The County's pre-winter mitigation measures are more fully described in the County's Emergency Watershed Protection Plan.

Winter Storm Monitoring and Operations

There will be close coordination with National Weather Service, County of Santa Barbara (both Office of Emergency Services (OES) and Flood Control) and the City of Goleta this winter. City staff will monitor affected bridges during winter storm events whenever runoff is occuring.

Given that even a small amount of rain could trigger debris flows and flooding this winter, the City of Goleta, County of Santa Barbara and City of Santa Barbara have established a Unified Incident Command System (ICS) organization to respond to a widespread flood emergency. City Hall will serve as the emergency operations center (EOC) for the City of Goleta and the new Community Services Department Corporation Yard facility located at the Cabrillo Business Park will operate as a department operations center (DOC).

If bridge plugging and associated flooding does occur, contract forces will be mobilized to remove debris and sediment as required. Emergency contracts with qualified firms will be awarded prior to the beginning of winter.

The County's planned vegetation debris racks will likely catch a significant amount of woody debris during winter storm events. As such the City will work closely with the County to identify

potential stockpile areas where woody debris can be temporarily stored until it can be chipped and hauled off site.

Public Information and Outreach Strategy

A comprehensive public information program is central to the City's pre-winter storm preparations. Making sure that our community is aware of the challenges that we face this winter is important. Reaching out to the residents and businesses in high risk areas and providing them with the informational tools they need to plan for the rainy season will be a key measure of the successful implementation of our plan.

To this end, the City is working closely with the County of Santa Barbara, the City of Santa Barbara, the Forest Service, FEMA, Office of Emergency Services and other state and federal agencies to coordinate public information activities.

The public information program will utilize a number of different tools and strategies to inform the community about the upcoming winter storm season:

Community Meetings: Kicking off the public information campaign will be the September 11, 2008 Community Forum on Gap Fire and Winter Storm Preparation that is being hosted by Supervisors Wolf and Firestone. The forum is being held on Thursday, September 11 from 6 P.M. – 8 P.M. at San Marcos High School and will be televised on local cable stations. The forum will be held in the auditorium with display and information tables staged in the adjacent cafeteria.

While the specific agenda is still being formulated, it is expected that representatives from SB County Fire, Sheriff, County OES, Forest Service, County Flood Control, and FEMA will speak on the Gap Fire and Winter Storm preparations. The City of Goleta will have an information table with maps, City of Goleta contact information and resources, Goleta City Alert information, and basic flood preparedness tips for homeowners. In addition, it is expected that representatives from the City of Goleta will have an official role at the forum.

The City of Goleta anticipates holding a community wide meeting following the September 11 forum at a City location such as the Goleta Valley Community Center, Goleta Valley Junior High or Dos Pueblos High School in order for Goleta City officials, County Flood Control, and FEMA officials to specifically target City of Goleta issues and concerns regarding the upcoming winter rainy season. The scheduling of this meeting is somewhat dependent on the turnout of the September 11 community forum. If there is good turnout at this event by City residents, staff may choose to forego a community wide meeting and instead focus on smaller neighborhood meetings in high risk areas near creeks and flood channels.

Neighborhood Meetings: City staff anticipates holding 3-4 small neighborhood meetings on a weekend or week day evening. These meetings may be held at a church, home, business or on a neighborhood street corner. The goal of these meetings is to directly target neighborhoods that are more likely to be affected by winter rains. These meetings will be held during October.

Targeted Mailers: City staff intends to do a direct targeted mailing to residents and businesses in high risk areas. These mailings will include flood preparation information, key contacts, and dates for neighborhood meetings.

Media Outreach: In addition to media releases, City staff will write columns for Noozhawk and the Goleta Valley Voice on winter storm preparation. City Staff will also pursue radio and television appearances to promote preparedness information.

Goleta TV Channel 19: The City's Channel 19 is already being used to promote the Sept. 11 forum. The event will be taped live and replayed on Channel 19 on Thursdays and Fridays at 10am and 5pm following the event and throughout the months of September and October.

There has also been some discussion about producing a 15 minute segment on flood preparation to run on Channel 19. This is budget dependent.

In addition, City staff is looking into purchasing equipment that will allow messages to "crawl" during live or broadcast programs. Presently, when an emergency message from the National Weather Service, is broadcasted, FCC rules require the information to be broad to cover the viewing area of that channel. However, Goleta TV Channel 19 can run a live crawl with specific information to Goleta that City staff generates. The cost of this type of equipment is approximately $3,000. If Council authorizes the purchase of the technology to use this tool remotely, the cost is approximately $6,000 more.

City Website: The City website will have a specific section on all winter storm preparation information. There will be links to pertinent agencies, flood preparation, maps, key City info and other resources. This will be in place prior to the Sept. 11 forum.

Goleta City Alert: City staff intends to utilize Goleta City Alert to notify residents and businesses about neighborhood meetings as well as to notify if there is an emergency. Given the very quick nature of flooding, Goleta City Alert is in invaluable tool as it can reach thousands of residents and businesses in a matter of minutes.

Information Kiosks: City Staff intends to deploy information kiosks in high risk neighborhoods. The kiosks will have maps, key information, and preparedness information. The goal for deployment of kiosks will be the first week of October.

City Newsletter: The Monarch Press will reach residents the first week of October. There is an article on winter storm preparation, keys tips and directions on where to get more information.

Mitigation Measure Cost Estimates

Preliminary cost estimates for the proposed pre-winter storm mitigation measures and public information program have been developed and are summarized in the following table.

Project	Estimated Total Cost
Winchester Canyon Road Culvert Repair at Winchester Canyon Creek	$200,000
Calle Real Culvert Modifications at San Pedro Creek	$30,000
Calle Real Overland Escape Improvements from Valdez to Vega	$75,000
Stow Canyon Road Culvert modifications at Las Vegas Creek	$15,000
Hydro Mulching of Selected Upland Areas	$70,000
Public Information Program	$10,000
Sand Bag Distribution	$5,000
Totals	$405,000

The costs associated with debris removal following winter storm events will be dependent on magnitude and frequency of debris removal operations.

SUMMARY

The Gap Fire burn area poses a significant threat to the City of Goleta. Increased storm water runoff, debris production and erosion during winter storm events are expected to occur. City staff has worked closely with Santa Barbara County and City of Santa Barbara staff to develop a comprehensive pre winter emergency response plan to reduce the flood threat associated with the Gap Fire burn area. Although implementation of the proposed mitigation measures identified in the City of Goleta's and County of Santa Barbara's emergency response plans will reduce the flood threat associated with the Gap Fire burn area, it will not completely eliminate the threat. In the coming months City staff will continue to work closely with other agencies to inform the public how they can best prepare for the coming winter rainy season.

Attachments:

1. 2008 Gap Fire – Burned Area Emergency Response Report
2. Qualitative Risk Analysis Matrix

USDA-FOREST SERVICE

DRAFT FS-2500-8
Date of Report: July 24, 2008

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated emergency stabilization funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)

[ ] 2. Interim Report ____
[ ] Updating the initial funding request based on more accurate site data or design analysis
[ ] Status of accomplishments to date

[ ] 3. Final Report (Following completion of work)

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Gap Fire

B. Fire Number: CA-LPF-001778

C. State: CA

D. County: Santa Barbara

E. Region: 5

F. Forest: Los Padres

G. District: Santa Barbara

H. Fire Incident Job Code: P5D9MC

I. Date Fire Started: 07/01/2008

J. Date Fire Contained: Expected containment 07/28/08

K. Suppression Cost: $20.1 million as of 07/23/08

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 42 miles
2. Fireline seeded (miles): None to date
3. Other (identify):

M. Watershed Number: 6th field HUC: 1806000130104 (Don Pueblos); 180600130201 (San Jose Cr)

N. Total Acres Burned: 9544
NFS Acres(4573: 48%) Other Federal ( ) State ( ) Private (4971: 52%)

O. Vegetation Types: Alternating bands of grasslands and chaparral follow bands of faulted and folded sedimentary rock formations across the landscape. Predominately south-facing slopes are dominated by chaparral with grasslands and oak woodlands at lower elevations. Conifers exist in small patches along ridgetops and on north-facing slopes. Narrow riparian corridors contrast sharply with the otherwise dry landscape.

P. Dominant Soils: See Table 1.

Table 1: Dominant soils within the Gap Fire.

Map Unit	Name	Texture* pH	Soil Depths	Runoff Potential	Permeability	Erosion Hazard	Slope Gradient
17	Lodo-Livermore-Chualar families association	SL, gSL, SiL 7.0 -7.6	shallow to deep	moderately low to high	rapid to moderately rapid	high to very high	30% – 60%
26	Millerton-Millsholm families – rock outcrop complex	SL 6.0	shallow	high	rapid	very high	30% – 80%
42	Rincon-Modesto-Los Osos families association	SL, gSL, SiL 6.5 – 7.2	moderately deep to deep	moderately high	moderately slow	high - low slope stability	30% – 60%
45	Stonyford-Ramona association	L 6.0-6.5	shallow to moderately deep	moderately low to high	moderate	high	30% – 65%

S=Sandy; L=loam; Si=Silt; g= Gravelly

Q. Geologic Types: Steeply dipping sedimentary rock, predominantly sandstone, crossed by east/west to northwest trending faults.

R. Miles of Stream Channels by Order or Class:

Perennial: 6.8 miles (2.9 miles USFS; 3.9 miles non-federal);
Intermittent: 34.1 miles (13.8 miles USFS; 20.3 miles non-federal)

S. Transportation System

Trails: 0 miles Roads: 24.1 miles (2.5 miles USFS; 21.6 non-federal)

PART III - WATERSHED CONDITION

A. Burn Severity by total and FS (acres): 2298 (USFS: 744) (low) 6241 (USFS: 3179) (moderate) 1014 (USFS: 641) (high)

B. Water-Repellent Soil by total and FS (acres): 435

C. Soil Erosion Hazard Rating by total and FS (acres):
0 (low) 0 (moderate) 9544 (USFS: 4573) (high)

D. Erosion Potential: 23-70 tons/acre

E. Sediment Potential: See Table 2

Table 2: Summary of sediment potential (cubic yards/ square mile)

		Sediment potential 1-year following Gap Fire	
Watershed	**Normal**	**Post-fire**	**% of pre-fire**
Upper San Jose Creek	2810	18830	670%
Upper Las Vegas Creek	1030	2480	240%
Upper San Pedro Creek	2340	32250	1380%
Upper Carneros Creek	2690	48200	1790%
Upper Glen Annie Canyon	3400	55600	1640%
Bell Canyon	3080	51720	1680%
Tecolote Canyon	2330	17500	750%
Eagle Canyon	3290	5080	150%

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 3-5

B. Design Chance of Success, (percent): 80

C. Equivalent Design Recurrence Interval, (years): 5

D. Design Storm Duration, (hours): 6 hour

E. Design Storm Magnitude, (inches): 4.66 inches

F. Design Flow, (cubic feet / second/ square mile): See Table 3 below

G. Estimated Reduction in Infiltration, (percent): 6%

H. Adjusted Design Flow, (cfs per square mile): See Table 3

Table 3: Design flow and post-fire adjusted design flow (cfs per square mile): Based on Rowe et al. method

	F. Normal watershed peak discharge per storm type (cfs/sq.mi.) [Design Flow Q5]				**G. 1-year post burn peak discharge per storm type (cfs/sq.mi.) with approximate equivalent recurring storm rank [Design Flow Q5]**			
Watershed	**Q2**	**Q5**	**Q10**	**Q25**	**Q2**	**Q5**	**Q10**	**Q25**
Upper San Jose Creek	53.5	97.0	134	191	73.5 (Q3)	125 (Q10)	166 (Q20)	229 (Q40)
Upper Las Vegas Creek	20.8	38.4	52.8	76.2	22.7 (Q3)	41.0 (Q6)	55.9 (Q12)	80.0 (Q28)
Upper San Pedro Creek	47.2	86.8	119	172	86.6 (Q5)	142 (Q14)	183 (Q30)	251 (Q100)
Upper Carneros Creek	55.1	102	142	207	118 (Q7)	189 (Q20)	246 (Q45)	335 (>Q100)
Upper Glen Annie Canyon	69.5	128	179	261	141 (Q7)	227 (Q25)	297 (Q40)	405 (Q100)
Bell Canyon	64.8	119	165	242	132 (Q7)	211 (Q17)	274 (Q35)	378 (Q100)
Tecolote Canyon	49.4	92.2	130	192	70 (Q3)	122 (Q9)	165 (Q20)	236 (Q50)
Eagle Canyon	67.3	122	170	246	69.6 (Q2)	126 (Q5)	174 (Q10)	251 (Q25)

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Values at risk

The Gap Fire burned approximately 9544 acres of which 4573 acres (48%) were on US Forest Service lands, and 4971 acres (52%) were on non-federal/private lands. A high percent (76%) was rated as moderate or high burn severity, with 24% rated as low burn severity. The fire completely burned off all effective cover on the majority of the burned area with the exception of some of the riparian areas in the bottom of the larger drainages. While soil burn severity was largely moderate, watershed response to precipitation events is expected to be high over nearly all of the fire area due to loss of cover on steep slopes. The potential for

increased flows leading to flooding and debris flows is high. Runoff and sediment yield is expected to increase substantially. Vegetation is expected to re-sprout in the majority of the burned area, with expected effective cover re-established within a 5 year period.

Within the fire perimeter there are multiple high value resources including the Southern California Edison Powerline, Goleta Water District water treatment plant, orchards, several reservoirs, buried water pipelines, and roads that access these different facilities, as well as a significant cultural resource site. In addition, the fire lies immediately upstream of the community of Goleta, Santa Barbara Airport, Highway 101, a railroad, and other high value downstream developments. These high value developments all lie within 0 to 5 miles of the fire. All of these high value resources are at risk should a storm of any significance rain on the burned area, particularly if antecedent moisture conditions are high.

East facing slopes with greater than 55% gradient and high soil burn severity have a very high risk of both landslides and debris flows. This is particularly significant in the area of the water treatment plant because failure could result in collapse of part of the water treatment facility resulting in catastrophic flooding. Other specific concerns include a high risk of failure of the powerline access road due to rockfall, debris flows, and landslides. This may result in partial to complete loss of the road prism in certain locations. Loss of access to the powerline could limit the response time to address problems with the powerline which would affect all of the downstream identified communities, airport, etc. Postfire sedimentation is also expected to reduce the capacity of several reservoirs within the burn area.

The BAER assessment team has met with interested cooperating agencies that may be affected by changes in physical processes that would affect downstream values at risk. Meetings were held to get initial concerns and identify information needs, to discuss potential treatment recommendations, and to discuss the draft BAER report. These meetings helped the BAER team to identify downstream values at risk, and consider treatment options.

Soil Burn Severity

The Forest Service BAER team assessed both the US Forest Service (USFS) lands as well as the private lands affected by the fire. Soil burn severity was determined to be 24% low, 65% moderate, and 11% high. The moderate and high areas of the burn are expected to have a high hydrologic response. Approximately 76% of the area the BAER team analyzed will produce high runoff and sediment yield.

Hydrologic and Erosion Response

The burn area is located upslope from the community of Goleta and surrounding subdivisions, Santa Barbara Airport, and major transportation systems (US Highway 101, railroad). This warranted analysis on a smaller scale than the sixth field hydrologic unit code watersheds typically used by the Forest Service. For this reason, smaller sub-watersheds that have been delineated by Santa Barbara County were used to better assess the hazards to these developments. Hydrologic response, relative to downstream values at risk, is most extreme in the Upper San Pedro, Upper Glen Annie, Bell Canyon, and Upper San Jose Creek subwatersheds. Post-fire change in peak flows range from 3 to 120 percent pre-fire flows for the 5-year storm. Sediment yield increases substantially from 7 to 18 times pre fire conditions in the above sub-watersheds. Sediment yield is most extreme in Upper Los Carneros, Bell Canyon, Upper Glen Annie, and Upper San Pedro Creek, although still significant in Tecolote and Upper San Jose Creek. The community of Goleta as well as the Santa Barbara Airport are located immediately downstream of the burned area and are at risk.

Threats to life: Threats to life and property have been identified both within the fire perimeter, as well as downstream from the fire, from increased runoff and flooding potential, debris flows, erosion and sedimentation, and landslides. Initial estimates indicate that over 120 residences and 70+ business properties are at risk from flooding and sedimentation, and/or debris flows. Lives are potentially at risk in these homes and businesses which are located in flood prone and debris flow prone areas, or on roads where flash flooding may cause washouts, loss of road structures and loss of water control.

Threats to property: Increased flooding, sedimentation, and debris flow probability have the potential to damage 120+ residences, 70+ business properties, impact Highway 101 and railroad which could result in closure, close the Santa Barbara Airport, cause power outages if debris flows affect the powerline, and affect domestic water supplies through impacts to the water treatment plant. Property values at risk are considered to be over two billion dollars (revised estimates are in progress). The table below identifies potential impacts by subwatershed.

Watershed	Hazard & Values at Risk
Upper San Jose Creek	Flooding and Debris Flows. Homes along main drainage; City of Goleta; Southern California Edison Powerline; Highway 101; Railroad crossing Dennis Reservoir; orchards; Goleta Beach County Park
Upper Las Vegas	Southern California Edison Powerline, Santa Barbara Airport; City of Goleta; Highway 101; railroad crossing. No treatments are proposed in this watershed since it is on private land.
Upper San Pedro	Flooding, Debris Flows. Homes along main drainage, below smaller tributaries and below burned slopes. Roads. Southern California Edison Powerline, Santa Barbara Airport; Highway 101; Railroad crossing; orchards
Upper Caneros	Flooding and Debris Flows. Santa Barbara Airport; Goleta Water District water treatment plant; Southern California Edison powerline and access road. Homes, roads and bridges along main drainage; orchards.
Upper Glen Annie	Flooding and Debris Flows. Glen Annie Reservoir; Goleta Water District water treatment plant; Water pipelines. Orchards downstream. Highway 101 and railroad crossings. Southern California Edison powerline and access road. Homes along main drainage, below smaller tributaries and below burned slopes. Cultural Resource site.
Bell Canyon	Flooding and Debris Flows. Southern California Edison Powerline and access road. Homes along mainstem; orchards. Highway 101 and railroad crossing.
Tecolote Subwatershed	Flooding and Debris Flows. Homes at bottom of drainage. Highway 101; Railroad crossing
Eagle Canyon	Overall low risk due to low percent of the watershed burning.

Threats to water quality: Glen Annie Reservoir is located within the fire perimeter, but has not been identified as critical for domestic water supplies. These reservoirs will experience increased sedimentation and some loss of storage and turbidity during peak runoff events, as well as stream water draining the burned area. The Goleta Water District water treatment plant is located within the fire, but is not likely to see direct effects from the fire. However, it appears that there may be indirect threats from landslides on slopes immediately below the water treatment plant that may affect a large water storage tank or other structures. The Cachuma Operations and Maintenance Board has a buried pipeline that may be affected by debris flows. While the debris flows would not directly affect water quality, a failure in the pipeline would affect domestic water supplies.

Threats to natural resources: No significant threats to natural resources are expected. While 76 percent of the burned area is considered to be of high or moderate burn severity, root systems are largely intact, and natural revegetation is expected to initiate within the first year, with full vegetative recovery expected within 3-5 years. There is potential for invasion of noxious weeds following the fire, but this potential cannot be evaluated until a later date.

Threats to cultural resources: There is one significant cultural site within the burn perimeter on USFS lands. Direct impacts to this site from the fire have been minimal, but there is potential for increased vandalism due to increased access from loss of vegetation.

Other Threats: Recreation – There is an extremely high risk of unauthorized OHV activity following the fire. Unauthorized OHV activity will greatly disturb the natural landscape, visual quality, recreational opportunity expectations of forest users, and the ability of the vegetation to regenerate. Past experience shows

administrative closures are ineffective in preventing unauthorized OHV activity. The Gap Fire is adjacent to highly urbanized areas with OHV users in the area. Physical barriers plus signage and OHV regulation enforcement by patrol personnel are the only proven effective methods of reducing unauthorized OHV activity.

B. Emergency Treatment Objectives:
As noted above, the greatest threats are to life and property from increased erosion and sedimentation, flooding potential, and increased debris flow potential. For these reasons the primary treatment objectives are to minimize loss of life and risk to human safety, and minimize threats to property. Other treatments are identified to reduce the risk of degradation of significant natural resources including the potential spread of noxious weeds, protection of a significant cultural resource site, and erosion and loss of landscape integrity by unauthorized OHV activity.

C. Probability of Completing Treatment Prior to Damaging Storm or Event:

Land **90** % Channel **--** % Roads/Trails **80** % Protection/Safety **90** %

D. Probability of Treatment Success: The probability of success listed below is for reduction in hillslope erosion and reduction in downstream flooding from storm events on USFS lands. However, without treatment to private lands downstream of USFS lands, the probability of success in significantly reducing overall erosion and flooding downstream to the values at risk will be lower.

	Years after Treatment		
	1	3	5
Land	80	90	100
Channel	n/a	n/a	n/a
Roads/Trails	80	80	80
Protection/Safety	50	50	50

E. Cost of No-Action (Including Loss): In progress

F. Cost of Selected Alternative (Including Loss): In progress

G. Skills Represented on Burned-Area Survey Team:

[X] Hydrology	[X] Soils	[X] Geology	[ ] Range	[X] Public Information
[ ] Forestry	[X] Wildlife	[ ] Fire Mgmt.	[X] Engineering	[X] Inter-agency coordinator
[ ] Contracting	[ ] Ecology	[X] Botany	[X] Archaeology	[X] NRCS
[X] Fisheries	[ ] Research	[ ] Landscape Arch	[X] GIS	

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H. **Treatment Narrative:**

(Describe the emergency treatments, where and how they will be applied, and what they are intended to do. This information helps to determine qualifying treatments for the appropriate funding authorities. For seeding treatments, include species, application rates and species selection rationale.)

Land Treatments:

Aerial Hydromulching – This treatment addresses the primary objective of reducing loss of life and property. With aerial hydromulch, a wood and paper mulch matrix with a non water-soluble binder would be applied to Forest Service land on slopes under 60% where there is no rock outcrop in the four high risk watersheds (Upper Los Carneros, Bell Canyon, Upper Glen Annie, and Upper San Pedro Creek). This treatment would provide immediate ground cover and increase infiltration which will help reduce flood peaks and sediment yield downstream to areas where there are lives and high values at risk. These areas were selected to stabilize sediment from becoming mobilized, and to reduce the initiation of rilling and subsequent debris flows high in the watershed. Mulch would be applied as slurry by helicopter and/or fixed wing aircraft.

(Note: Helimulching with dry straw, though less costly than aerial hydromulching, was considered but discounted because it would not likely remain in place due to strong sundowner winds in the area. Seeding was also considered but discounted because research has shown it has little or no effectiveness and can have adverse effects on native plant communities).

Table 1: *Estimates of Sediment Production and Comparison of Reduction Potential for Proposed Mulch Treatment* based on ERMiT modeling. Note these are hill-slope soil erosion estimates that are not routed through the stream system.*

		Event Sediment Delivery t/ac		
Watershed	**Treatment**	**1st Year**	**2nd Year**	**5th Year**
Bell Canyon	**Untreated**	**69.7**	**45.6**	**5.0**
	Mulched (1t/ac)	6.5	10.3	5.0
Upper Glen Annie	**Untreated**	**54.5**	**36.2**	**3.9**
	Mulched (1t/ac)	5.1	8.2	3.9
Upper Los Carneros Creek	**Untreated**	**56.3**	**36.8**	**4.2**
	Mulched (1t/ac)	5.2	8.2	4.2
Upper San Pedro Creek	**Untreated**	**53.6**	**35.5**	**3.9**
	Mulched (1t/ac)	5.0	8.0	3.9

**The model is calibrated for straw mulch but is the best available modeling tool at hand at this point*.

PAM-12: The assessment team also considered the use of PAM-12. PAM is a recently developed in stabilizing burned areas. This treatment has been successfully applied for wildfire areas in Utah, but at this time it remains untested in California. One possibility is to work with Dr. Cannon and her staff at the US Geological Survey with their debris flow research to test the viability of this product. Small areas carefully selected in the low to moderate risk watersheds, such as Tecolote Canyon, may be the best areas for this testing. PAM-12 consists of recycled paper granules embedded with a combination of soil stabilizing polymers, and is spread over burned areas using a standard bucket for aerial seeding. PAM-12 stabilizes the soil by binding soil particles together. PAM-12 increases water infiltration into the soil, and also aids in germination and establishment of seed. This treatment should be considered by the implementation team. Soil samples have been sent to the manufactuer of PAM-12 to determine its appropriateness for this specific fire. If determined appropriate, and an opportunity exists, an interim 2500-8 would be submitted requesting a change in treatment from aerial hydromulch to PAM-12 in isolated areas as mentioned above.

Botany: The treatment includes noxious weed detection surveys and spot treatment of dozer lines, safety zones, and selected roads affected by the Gap fire. Assessing the establishment of weeds and treating small outlying populations before they expand will prevent the weeds from becoming serious threats to the recovery of native/rare plants.

Channel Treatments: None recommended at this time.

Road Treatments:

Powerline access road: The Southern California Edison Powerline access road is at risk of loss from post-fire runoff due to lack of adequate drainage and non-current design standards. Substantial sediment yield can occur under post-fire conditions. Recommended road treatments include installing drainage features to improve drainage and minimize concentration of increased runoff on the road surface which could lead to significant degradation of the road, including making the road impassable. This treatment would help to maintain the infrastructure function and future access, which may be needed to address impacts to the powerline from debris flows following the fire.

Protection/Safety Treatments:

Early Warning System-- The Forest Service will cooperate with the National Weather Service and local flood control agency to purchase and install early warning devices. These devices will then be operated and maintained by the cooperating agencies. The threat to life downstream of the fire is high due to increased flooding and debris flows, and this treatment will help to provide every opportunity possible to reduce loss of life and property.

Extended Emergency Coordination – This involves communication and coordination with other federal, state, and local agencies with jurisdiction over lands where life and property are at risk from post-fire conditions. The Gap Fire may need followup activities due to the complexity of issues. Actions include but are not limited to coordinating treatments across administrative boundaries, cooperating with other agencies on hazard notificaton systems, exchanging information and coordinating the BAER implementation plan as needed when subsequent recovery plans are developed by other agencies. The intial cost request plans for this effort to include a primary coordinator assigned to the district to facilitate coordination, and part time technical specialists (i.e., geologist and hydrologist) to aid the coordination for the primary resource issues associated with this fire. Additional coordination needs may ensue, costs for which will need to be requested on an interim 2500-8.

Signs—Signs will be placed at key access points to inform Forest users of safety hazards, and reinforce physical barriers placed to promote revegetation and recovery.

I. **Monitoring Narrative:**

Forest personnel will monitor the BAER treatments to check that treatments are present and functioning properly. A funding request for monitoring along with a monitoring plan will be submitted in an interim BAER request.

PART VII - APPROVALS

1. _____ _____
Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date

APPENDIX A: Summary of findings by resource

Appendix A provides a summary of findings by each resource area. The full specialist report for each resource is available in the Gap Fire BAER administrative record.

Attachment 1: Soils
Attachment 2: Geology
Attachment 3: Hydrology
Attachment 4: Botany
Attachment 5: Weeds
Attachment 6: Wildlife and Fisheries
Attachment 7: Cultural Resources

Attachment 1: Soils

Date: July 24, 2008
Author: Gina Rone, Soil Scientist

Long Term Soil Productivity

Resource Setting

The soils in the Gap Fire area formed from sedimentary parent material that accumulated over a long period of marine and continental deposition that was followed by the coastal uplift of the Santa Ynez mountains. Consolidated rocks are exposed in the steep uplands while more gradual slopes, alluvial plains, and terraces are present in the foothills that eventually deposit as uncompacted fill deposits towards the ocean. See geology report for more detail.

Soils within the Gap Fire area have developed in associations of mixed chaparral and oak woodland. This fire-adapted vegetation consists most commonly of chamise, ceanothus, manzanita, scrub oak, live oak, madrone, coastal sagebrush, salvia, yucca, and annual grasses. Soils are shallow to deep in the uplands, shallow in the mid-portion, and moderately deep to deep along the lower mountain slopes and valley bottoms and are directly associated with the underlying geology. Slope gradient averages between 40 to 80 percent in the western and mid-sections of the burn area and changes into more gentle terrain in the northeastern uplands and all along the foothills.

Most soils identified within the burn area consist of primarily sandy to gravelly sandy loams, especially in the upper two thirds of the burn area. Textures increase in silt and clay content towards lower elevations.

Findings of On-The-Ground Surveys

Aerial reconnaissance and field observations of the Gap Fire revealed that most burned area soils fall into a moderate to high burn soil severity classification. Soils with a high burn severity classification are primarily present across the mid-section of the burn area at elevations between 1000 to 2400 feet. This unusual pattern was driven by so called “Sundowner” downslope winds.

Litter destruction is generally low to moderate since many of the areas still contain some sort of charred and distinguishable litter component. Areas with white ashes are most dominant in the upper Tecolote and Ellwood drainages and represent sites with very deep ash layers that reflect moderate or complete consumption of the prior vegetation and litter layer. However, fine and coarse roots are still present and natural regeneration in this fire-adapted ecosystem should be robust.

All soils reflect a high to very high erosion potential despite displaying generally rapid permeability. Cover is lacking for erosion control in the moderate to high burn severity areas due to complete vegetative consumption. This is especially pronounced across the mid-portion of the burn area. Tecolote, Bell Canyon, Glen Annie, Upper Carneros, and lower San Pedro canyons still contain stretches of intact riparian area, while the remaining main drainages, such as McCoy Canyon, contain less live vegetation.

Based on the results of the field survey, it appears that there was only a modest change in overall water repellency from background natural levels. This is possibly the effect of fast-moving fire with short residence times in any one spot, which would lead to relatively low soil heating and low increases in water repellency.

Hydrophobicity was present but varied greatly and was discontinuous across the landscape. Unburned areas where also sampled as a control and found to be naturally hydrophobic, making it very difficult to determine if the majority of the water repellency was fire induced. When hydrophobicity starts at a depth of ~1/2 inch and extends for an additional inch into the soil, water repellency is believed to be fire induced.

Sediment and Erosion Modeling

The purpose of the post-fire assessment is to analyze fire effects on soils, determine the potential for negative effects to values at risk, and to consider possible treatment options. The surface erosion potential for each representative landforms within the Gap Fire area was estimated using the Erosion Risk Management Tool (ERMiT). ERMiT (http://forest.moscowfsl.wsu.edu/fswepp/) is a web-based application that uses Water Erosion Prediction Project (WEPP) technology to estimate erosion, in probabilistic terms, on burned and recovering chaparral lands with and without the application of erosion mitigation treatments.

There is a potential for significant runoff and associated soil erosion to occur on moderate and high soil burn severity sites if intense or long duration rainstorms impact the fire area, especially if soils are already saturated. The ERMiT soil erosion model estimates are equal to the erosion rate with a 2-year return interval rainstorm. Estimates using moderate to high soil burn severity with adjusted acres for different slope gradients in individual watersheds predict that 23 to 70 tons per acre of soil erosion can be expected when an intense rainstorm occurs. Note these are hill-slope soil erosion estimates that are not routed through the stream system.

Emergency Determination

Low Burn Severity Areas

Erosion reduction and/or emergency revegetation treatments are not recommended for any of the low burn severity sites because of the rapid natural revegetation and the low soil erosion potential.

Moderate and High Burn Severity Areas – Steep Slopes (>60 percent)

Erosion reduction and/or emergency revegetation treatments on the majority of slopes >60 percent are not recommended for most of the moderate and high soil burn severity areas because of steepness of slope, slope lengths, accessibility, and surface rock content. Debris racks and other in-channel structures are seldom installed in headwaters and are treatment options reserved for downstream stabilization to collect sediment, rocks, and organic debris from plugging culverts.

Moderate and High Burn Severity Areas – Gentle and Moderate Slopes (<60 percent?)

Erosion reduction and/or emergency treatments in the form of aerial hydromulching are recommended for terrain on slopes at or below 60 percent in the upper portions of the burn area including the Upper Glen Annie, Upper Carneros Creek, Upper San Pedro Creek, and Upper San Jose Creek watersheds. Additional application of a newer product (PAM-12) is proposed to occur via aerial applications in upper Tecolote Canyon where immediate concerns and risks to values are reduced.

The ERMiT soil erosion model was used to estimate post-fire soil erosion and potential soil erosion reduction with a mulching BAER treatment. The model is calibrated for straw mulch but is the best available modeling tool at this time.

Estimates of Sediment Reduction for Proposed Mulch Treatment Site.

Table 1: *Estimates of Sediment Production and Comparison of Reduction Potential for Proposed Mulch Treatment based on ERMiT modeling..*

		Event Sediment Delivery t/ac		
Watershed	**Treatment**	**1st Year**	**2nd Year**	**5th Year**
Bell Canyon	Untreated	69.7	45.6	5.0
	Mulched (1t/ac)	6.5	10.3	5.0
Upper Glen Annie	Untreated	54.5	36.2	3.9
	Mulched (1t/ac)	5.1	8.2	3.9
Los Carneros Creek	Untreated	56.3	36.8	4.2
	Mulched (1t/ac)	5.2	8.2	4.2
Upper San Pedro Creek	Untreated	53.6	35.5	3.9
	Mulched (1t/ac)	5.0	8.0	3.9

Results showed that the expected post-fire potential erosion rate with a 2-year return interval rainstorm in the fire area ranges between 6 to 8 tons/acre on low burn severity, 7 to 96 tons/acre on moderate burn severity, and 8 to 113 tons/acre on high burn severity soils. The mulch treatment would reduce that to 0.6 to 6 tons/acre on low burn severity, 0.7 to 9 tons/acre on moderate burn severity, and 1 to 11 tons/acre on high burn severity soils. The straw mulch treatment would reduce the erosion rate with a 10% chance that the erosion rate would be exceeded the first year following the fire.

Attachment 2: Geology

Date: July 23, 2008
Author: Thomas E. Koler, PhD, PG; Eldorado NF

Note: This is an abridged version of the geology report providing an executive summary of the assessment of the geologic risks in the wildfire area. This version should not be used as a substitute for the final geology report.

I. Potential Values at Risk (identified prior to the on-the-ground survey)

Potential values at risk from geologic hazards (i.e., landslides, debris flows, and rockfalls) are the health and safety for people, residences, roads, bridges and other facilities within and downstream from the wildfire area. Of particular concern is the potential risk for loss of life and limb. Most of these resources are located on the valley floor within and near the City of Goleta located immediately south from the forest boundary.

II. Resource Condition Assessment

A. Resource Setting

The geology of the wildfire area is complicated with steeply dipping sedimentary beds and faults that trend east-west to northwest. The rock type in this area is sedimentary and Tertiary to Quaternary in age.

B. Findings of the On-The-Ground Survey

1. Resource condition resulting from the fire and risk assessment

Geologic risk is defined in the literature as a function of the likelihood that a geologic hazard will occur and the consequences that will result. USFS BAER policy recommends that only resources with a high risk be provided with treatments for mitigating the risk. Therefore only those areas that have been assigned a high risk are discussed below in the treatment discussion. Table 1 provides the information for qualitatively assigning risk values for rock fall, landslides and debris flows. **Those areas that have slopes greater than 55% gradients with high soil burn severities were assigned likelihoods in Table 1 of possible or greater (e.g., possible, likely, and almost certain)** based on a physically-based modeling of the area. **Likelihoods of geologic hazards occurring and predicted consequences for resources at risk for each watershed are provided in Table 2**.

II. Emergency Determination –

The emergency to values at risk from geologic hazards (i.e.,debris landslides, debris flows, and rockfalls) caused by the fire include adverse effects for the health and safety of people, residences, roads and bridges within the wildfire area. Of particular concern is the potential risk for loss of life and limb.

III. Treatments to Mitigate the Emergency

A. Treatment Type (including monitoring if applicable)
Aerial Hydro-Mulching

The BAER team is recommending aerial hydromulch as the most effective means of reducing potential impacts to the values at risk. There are few short-term treatments (as required for BAER) that will mitigate the emergencies resulting from debris landslides, debris flows and rockfall other than treating the soil in areas where the hillslopes are not steep (i.e., less than 60% slope gradient). Potential areas where the more gentle slopes can be found are in the upper slopes of Upper Glen Annie Canyon, Upper Carneros

Creek, Upper San Pedro Creek and Upper San Jose Creek. In these locations it is feasible to apply aerial hydro-mulching to help prevent the initiation of debris landslides and debris flows.

Table 1: Qualitative terminology for use in assessing rock fall, landslide and debris flow risk to property

Qualitative measures of likelihood of landsliding		
Level	**Descriptor**	**Description**
A	Almost certain	The event is expected to occur
B	Likely	The event will probably occur under adverse conditions
C	Possible	The event could occur under adverse conditions
D	Unlikely	The event could occur under very adverse circumstances
E	Rare	The event is conceivable but only under exceptional circumstances
F	Not credible	The event is inconceivable or fanciful
Qualitative measures of consequences to the resource		
1	Catastrophic	Resource is completely destroyed or large scale damage occurs requiring major engineering works for stabilization
2	Major	Extensive damage to most of the resource, or extending beyond site boundaries requiring significant stabilization
3	Medium	Moderate damage to some of the resource, or significant part of the site requires large stabilization works
4	Minor	Limited damage to part of the resource, or part of the site requires some reinstatement/stabilization works
5	Insignificant	Little damage

Qualitative risk analysis matrix – classes of risk to resource					
	Consequences to the resource				
Likelihood	Catastrophic	Major	Medium	Minor	Insignificant
Almost certain	VH	VH	H	H	H
Likely	VH	H	H	M	L-M
Possible	H	H	M	L-M	VL-L
Unlikely	M-H	M	L-M	VL-L	VL
Rare	M-L	L-M	VL-L	VL	VL
Not credible	VL	VL	VL	VL	VL

Legend – VH: very high risk; H: high risk; M: moderate risk; L: low risk; VL: very low risk

Table 2: Risk summary table.

Resources at Risk	**Table 1 Likelihood Descriptor**	**Table 1 Consequence Descriptor**	**Risk Rating**
Residences, farms, roads, bridges and Highway 101 within the **Eagle Canyon Watershed**	Possible	Insignificant to Minor	Very Low to Moderate

Resources at Risk	Table 1 Likelihood Descriptor	Table 1 Consequence Descriptor	Risk Rating
Residences, farms, roads, bridges and Highway 101 within the **Tecolote Canyon Watershed**	Possible	Minor to Medium	Low to Moderate
Residences, farms, roads, bridges and Highway 101 within the **Bell Canyon Watershed**	Likely to Almost Certain	Minor to Medium	Moderate to High
Residences, farms, roads, powerline and Glen Annie Reservoir in the **West Fork Glen Annie Canyon of Upper Glen Annie Canyon**	Possible to Almost Certain	Medium to Major	Moderate to Very High
Residences, farms, roads, powerline, Highway 101, City of Goleta and the Campus of the University of California at Santa Barbara downstream from **McCoy Canyon within the Upper Glen Annie Canyon**	Possible to Almost Certain	Medium to Major	Moderate to Very High
Water treatment facility for the City of Goleta located within **Dry Creek of Upper Carneros Creek**	Likely to Almost Certain	Medium to Catastrophic	High to Very High
Residences, farms, roads, bridges, powerline, Highway 101, City of Goleta, Goleta Airport, and the University of California at Santa Barbara within the **Upper Carneros Creek**	Possible to Likely	Minor to Major	Low to High
Residences, farms, roads, bridges, powerline, Highway 101, schools, City of Goleta and Santa Barbara Airport within the **Upper San Pedro Creek**	Possible to Likely	Minor to Major	Low to High
Residences, farms, roads, bridges, powerline, Highway 101, schools, City of Goleta and Santa Barbara Airport within the **Upper Las Vegas Creek**	Possible	Minor to Medium	Low to Moderate
Residences, farms, roads, bridges, powerline, Highway 101, schools, Goleta Valley Hospital, and City of Goleta within the **Upper San Jose Creek**	Possible to Likely	Minor to Major	Low to High

III. Treatments to Mitigate the Emergency (Continued)

PAM

PAM-12 was considered, but not chose to carry forward for treatment due to lack of information regarding effectiveness. PAM-12 is a recent development in stabilizing recently burned areas. This treatment has been successfully applied for wildfire areas in Utah, but at this time it remains untested in California. One possibility is to work with Dr. Cannon and her staff at the US Geological Survey with their debris flow research to test the viability of this product. Small areas carefully selected in the low to moderate risk watersheds, such as Tecolote Canyon, may be the best areas for this testing.

Pipe Debris Racks

Stakeholders have proposed that pipe debris racks be placed to help slow and/or stop debris flows and large woody debris. Unfortunately these structures are not temporary. If it was possible to utilize this treatment, the design requirements would make this an unlikely candidate because they require the placement in the catchment areas of culverts due to the lack of suitable areas within US Forest Service System lands (i.e., new roads would need to be constructed to reach these areas).

B. Treatment Objective

To stabilize potential source areas for debris landslide and debris flow initiation in which the risk to the resources has been assigned a high risk value.

C. Treatment Description

Aerial hydro-mulching provides a temporary cover for soils to help them regain native vegetation before heavy winter rains occur. PAM is a paper product with a polymer that reportedly provides the same protection.

IV. Discussion/Summary/Recommendations

In summary, debris landslides, debris flows and rockfall are the geologic hazards in the wildfire area within National Forest System lands. These forms of slope movement have occurred under vegetated conditions and therefore are assumed that they will occur with some frequency in the next few months due to the loss of vegetated cover from the wildfire. Treatments within National Forest System lands may include aerial hydro-mulching for the gentle slopes and perhaps testing PAM in a small area where the risk is less than high. Within the Forest there is a lack of access as well as suitable areas for constructing structures to slow or stop failed slope materials.

V. References

Please see the final geology report

Attachment 3: Hydrology

Date: July 23, 2008
Author: Rob Taylor, San Bernadino NF

Resource Setting

The Gap Fire occurred in a marine coastal environment. Peak flow events are dominated by orographic effects resulting in rainfall that result in flash floods. Majority of the drainages only flow when rainfall is present, typically in the winter months.

Hydrologic Emergency Determination Summary

Loss of Water Control

The use of eight local subwatersheds for the analysis, instead of the larger 5th or 6th level HUCs, provides a more pronounced and indicative increase in water yields by watershed because there is less averaging across unburned areas. At this smaller scale increases in peak discharge for the design storm (Q5) increases range from 3 to 7 percent, 28 to 32 percent, and 63 to 120 percent. The low values reflect very small amount of burn and/or very low severity in Eagle Creek and Las Vegas Creek. The moderate values are from watersheds with about 20% moderate and high burn severity (San Jose Creek and Tecolote Creek). Those watersheds with nearly double peak discharge values include Bell Canyon, Upper Glen Annie Canyon, Upper Carneros Creek, and Upper San Pedro Creek. These four watersheds include 75% of the burn and the modeling indicates that a Q5 storm would react similar to a Q15 to Q25 storm. This constitutes an emergency.

Increase in sediment potential

Increases in sediment potential for the eight subwatersheds range from 1.5 to 2.4 times, 6.7 to 7.5 times, and 13.8 to 17.9 times. The low values reflect very small amount of burn and/or very low severity in Eagle Creek and Las Vegas Creek. The moderate values are from watersheds with about 20% moderate and high burn severity (San Jose Creek and Tecolote Creek). Those watersheds with the highest increase in sediment potential values include Bell Canyon, Upper Glen Annie Canyon, Upper Carneros Creek, and Upper San Pedro Creek. These four watersheds include 75% of the burn and the modeling indicates that a Q5 storm would react similar to a Q15 to Q25 storm. This constitutes an emergency.

Residential & Commercial Development, Transportation Corridors, Airport

Sediment and peak flow increases have the potential to cause a cumulative debris flow and flooding effect. These effects have varying potentials for the various watersheds and are discussed further in the geology and soils report. This potential for flooding and debris flow has the added risk of causing erosion to farmlands, erosion control structures and housing developments. In addition to homes in the floodplain, there are bridges for roads, highways and a rail road trestle span above the multiple creeks, and have the potential to be affected by debris and flooding. Finally, the Santa Barbara Airport is located such that multiple watersheds discharge into its area.

With the general infrastructure capacity of the City of Goleta being Q10 to Q25, the fire has exacerbated an already fragile system. This indicates that there is an emergency condition to downstream development, county/city roads, Highway 101, and the railroad.

Table 2 indicates that the design storm (Q5) will result in a Q20 to Q25 storm on Upper Carneros Creek and the Upper Glen Annie Canyon watersheds, respectively, at a point about one mile north of the northern edge of the airport. Given the information available, this constitutes an emergency condition to the Santa Barbara airport.

Orchards

Agricultural land and “homesteads” along the various rivers are at risk from the potential of increased runoff, scour, and deposition.

For orchards located adjacent to creeks in the Bell Canyon, Upper Glen Annie Canyon, Upper Carneros Creek, and Upper San Pedro Creek, there is an emergency condition to life for occasions when workers may be in that vicinity during the design storm event and for property from increased watershed response.

Water Developments

Insufficient information was available to make an emergency determination for the Glen Annie Reservoir.

As the risk of this is low, no emergency determination is made at this time for the Cachuma operation and maintenance board pipelines.

Determination of risk due to slope loss below theGoleta Water District water treatment plant is addressed in the geologic report.

No locations were provided as to specific water tanks. Without this information, no emergency determination can be made.

A capacity of available storage for sediment and water was not determined for Dennis Reservoir. Without this calculation, it is difficult to indicate if there is an emergency condition for the reservoir relative to peak flow and sediment in-filling. Determination of emergency should be coupled with the soils report.

Southern California Edison Powerline

Though information indicated that SCE had recently graded the road surface, almost no drainage control structures, such as overside drains, culverts, or rolling dips were observed. This lack of drainage structure and drainage design capacity potentially is a pre-fire condition. However, the lack of vegetation will increase the runoff and sediment delivery potential and could cause the loss of the road. There is an emergency determination for the road surface.

Potential for damage from debris flows and undercutting of towers due to slope instability is addressed in the geologic report. No emergency determination is made at this time.

Attachment 4: Botany

Date: July 23, 2008
Author: Tom Murphey, Wildlife Biologist, Los Padres NF
Technical consultation provided by: Lloyd Simpson, Forest Botanist, Los Padres NF

I. Potential Values at Risk

This report assesses the effects of the Gap Fire and the proposed effects of the burned area emergency rehabilitation (BAER) treatments on the following Forest Service Region Five Sensitive plant species:

- Sonoran maiden fern (*Thelypteris puberula var. sonorensis*)
- Refugio manzanita (*Arctostaphylos refugioensis*)
- Late-flowering mariposa lily (*Calochortus weedii var. vestus*)
- Santa Barbara honeysuckle (*Lonicera subspicata var. denudata*)
- Santa Ynez false lupine (*Thermopsis macrophylla*)

There are no plants within the Gap Fire area that are listed as Federally Threatened or Endangered with the US Fish & Wildlife Service.

II. Resource Condition Assessment

A. Resource Setting

The overall soil burn severity for the 9,544 acre Gap Fire consists as a mix of 13% unburned, 11% low, 65% moderate, and 11% high. Based on the fire history maps most of the high soil burn severity areas had not burned since the 1955 Refugio Fire. The Gap Fire impacted a number of different plant communities and environments. It burned Costal Sage Scrub, oak woodland, as well as riparian areas.

B. Finding of On-the-Ground Survey

1. Resource condition resulting from the fire.

All known populations of sensitive plant species (above) were overlaid with the Gap Fire boundary. All of the species potentially occur along or within the fire perimeter.

2. Consequences of the fire on values at risk.

Based on conditions found in the field survey and references on the specific fire ecology of each species, these populations should not be adversely affected by the wildfire. In fact, all of these species are well adapted to endure and/or thrive following wildfire.

III. Emergency Determination

None

IV. Treatments to Mitigate the Emergency

A. Treatment type: No treatments under BAER are recommended because of the lack of effective options and because under natural recovery conditions all of the above species are expected to recover from this fire.

B. Treatment objective: N/A

C. Treatment Description: N/A

D. Treatment Cost: N/A

V. Discussion/Summary/Recommendations

It is recommended that surveys for some of the above species are pursued using non-BAER funding in order to establish the presence of these species. Past survey efforts were many years or decades prior to the Gap Fire, and the geographical distribution is only vaguely known. Species that are lacking data or that could be updated include:

- Refugio manzanita
- Late-flowering mariposa lily

VI. **References** See sensitive plant specialist report

Attachment 6: Noxious Weeds

Date: July 23, 2008
Author: Tom Murphey, Wildlife Biologist, Los Padres NF
Technical consultation provided by: Lloyd Simpson, Forest Botanist, Los Padres NF
Ken Krueger, Biological Technician, Los Padres NF

VII. Potential Values at Risk

The Gap Fire burned within the Los Padres NF on the Santa Barbara Ranger District, within the Santa Barbara Front Country. A number of private in-holdings within the forest, as well as private lands outside the forest were also burned. The fire burned during the month of July 2008 and affected 9,544 acres of which 4,573 acres were on National Forest System (NFS) lands.

Many non-native plants are found in California wildlands, but some are much more invasive and noxious than others. Invasive weeds are very effective at occupying disturbed soil and displacing native plants and habitat. Non-native invasive weeds have the potential to displace native vegetation, degrade habitat function, and lower ecosystem stability. Ecological stability relates to the value of native plant communities for wildlife habitat and watershed function.

The potential values at risk, in relation to invasive noxious weeds are the ecological stability of native plant communities and the degradation of Region 5 Sensitive plant habitat.

VIII. Resource Condition Assessment

A. Resource Setting

Many invasive noxious weeds are known to occur within the Gap Fire area (Table 1).

Table1. Invasive Noxious Weeds Known In, and Adjacent to the Gap Fire Area

Scientific Name	Common Name
Centaurea solstitialis	Yellow starthistle
Carduus pycnocephalus	Italian thistle
Centaurea melitensis	Tocalote
Foeniculum vulgare	Wild fennel
Tamarix ramossica	Tamarisk
Spartium junceum	Spanish broom
Eucalyptus globulus	Tasmanian blue gum
Cortaderia selloana	Pampas grass

B. Finding of On-the-Ground Survey

1. Resource condition resulting from the fire.

During the BAER team limited survey, noxious weed populations were confirmed or discovered on NFS lands, mainly along or near West Camino Cielo:

- Yellow starthistle
- Italian thistle
- Tocalote
- Wild fennel
- Spanish broom

2. Consequences of the fire on values at risk.

If any weeds were introduced, they could take advantage of the disturbance associated with the fire and displace native vegetation, degrade habitat function, lower ecosystem stability.

IX. Emergency Determination

The unknowing introduction of invasive noxious weeds into areas disturbed by fire suppression and rehabilitation has the potential to establish persistent weed populations. These persistent populations could affect the structure and habitat function of plant communities within the burn area. Forest Service direction is to minimize the establishment of non-native invasive species to prevent unacceptable degradation of the burned area. Consequently, delayed assessment of roads, dozer lines, drop points, and safety zones is necessary to detect the spread and introduction of weeds in the first year after fire. Assessing the establishment of weeds and treating small outlying populations before they expand, will prevent the weeds from becoming serious threats to the recovery of native plants.

X. Treatments to Mitigate the Emergency

A. **Treatment type:** The treatment is noxious weed detection surveys of all roads, dozer lines, drop points, and safety zones affected by the Gap Fire. These areas will be surveyed for evidence of introduction or spread of noxious weeds. If any new or outlying populations are found in these surveys, a supplementary request for noxious weed treatment will be submitted
B. **Treatment objective:** Evaluate and eliminate the potential for noxious invasive weed establishment and spread, in all areas affected by the Gap fire suppression activities.
C. **Treatment Description:** Inspect all areas and monitor for newly established weed occurrences. Monitoring will include documentation and hand pulling small new weed occurrences at the time of inspection.
D. **Treatment Cost:** Variable; see noxious invasive weed specialist report.

XI. Discussion/Summary/Recommendations

Continue monitoring surveys, post BAER funding, to ensure complete weed eradication.

XII. **References** See noxious invasive weed specialist report.

Attachment 7: Wildlife and Fisheries

Date: July 23, 2008
Author: Tom Murphey, Wildlife Biologist, Los Padres NF

XIII. Potential Values at Risk

This report assesses the effects of the Gap Fire and the proposed effects of the burned area emergency rehabilitation (BAER) treatments on the federally listed:

- California condor (*Gymnogyps californianus*)
- Southern California coast steelhead (*Oncorhynchus mykiss*) Distinct Population Segment (DPS) and critical habitat for the southern California coast steelhead

This analysis also assesses the effects of the Gap Fire and proposed BAER treatments on the following Forest Service Region Five Sensitive species:

- California Spotted Owl (*Strix occidentalis occidentalis*)
- Peregrine falcon (*Falco peregrinus anatum*)
- Pallid Bat (*Antrozous pallidus*)
- Western Red Bat (*Lasiurus blossevillii*)
- Southern Pacific Pond Turtle (*Actinemys marmorata pallida*)
- San Diego Horned Lizard (*Phrynosoma coronatum blainvillii*)
- California Legless lizard (*Anniella pulchra*)
- Two-striped Garter Snake (*Thamnophis hammondii*)

XIV. Resource Condition Assessment

A. Resource Setting

The overall soil burn severity for the 9,544 acre Gap Fire consists as a mix of 13% unburned, 11% low, 65% moderate, and 11% high. Based on the fire history maps most of the high soil burn severity areas had not burned since the 1955 Refugio Fire. There are three general classes of sensitive wildlife that were affected by the fire: chaparral, oak woodland and riparian species.

The chaparral species of special interest is the San Diego Horned Lizard.

The oak woodland species are:

- California spotted owl
- California legless lizard
- Pallid bat

The riparian species are:

- Southern Pacific pond turtle
- Two-striped garter snake
- Southern California coast steelhead
- Western red bat

The California condor and peregrine falcon often roost on cliff or snags along ridges and fly over the entire area.

B. Finding of On-the-Ground Survey

1. Resource condition resulting from the fire.

Chaparral habitat is the dominate vegetation type within the burn perimeter. Chaparral habitat burned more completely than other habitat, but some unburned areas remain.
Oak woodland habitat generally burned with low to moderate intensity and left some unburned islands.
Riparian habitats generally burn very light or not at all, however some exceptions did occur throughout the fire area, so direct impacts to this habitat are minimal.
Cliff habitats were either not affected or very lightly burned due to the low fuel content.

2. Consequences of the fire on values at risk.

Chaparral species: Horned lizards likely experienced direct mortality during the burn, but are expected to recolonize the area from nearby unburned habitat.

Oak woodland species: Habitat within the moderately burned areas will likely regenerate, as the coast live oak will trunk sprout, except in areas where the high duff layer burned and girdled the trees. Spotted owls and pallid bats were most likely not directly impacted by the burn due to their ability to leave the area. The former will be impacted temporarily by the loss of prey species, woodrats in particular, that were killed in the fire. Legless lizards undoubtedly sustained a high mortality, due to the consumption of the leaf litter habitat by the fire.

Riparian species: Burned riparian areas typically recover rapidly post fire due to high soil moistures and ability of most riparian woody plants to crown sprout. Riparian areas throughout and below the fire area will be subjected to increased scouring and debris flows over the next three to five years resulting in changes to channel morphology, lowered water quality, and erosion of stream banks and associated riparian vegetation. Reptilian species such as the aquatic two-striped garter snake and southern Pacific pond turtle will be temporarily displaced, however they should benefit by the establishment of sand bars and regeneration of riparian vegetation.

There was not any direct mortality to California Condors from the fire and they may benefit from an increase in foraging areas and snag generation. Peregrine falcons were not likely affected by the fire directly but may have a different host of prey species that respond to habitat changes; for instance there may be a shift in prey items toward woodpeckers and other species that respond favorably to increased insects in burned areas.

XV. Emergency Determination

Emergency conditions resulting from the Gap Fire exist for the following species:

Species	Emergency condition
San Diego horned lizard	Direct mortality from the fire
California spotted owl	Temporary loss of habitat
California legless lizard	Direct mortality from the fire and loss of habitat
Southern Pacific pond turtle	High water flows
Two-striped garter snake	High water flows
Southern California coast steelhead	High water flows and excessive sedimentation

XVI. Treatments to Mitigate the Emergency

A. Treatment type: No treatments under BAER are recommended because of the lack of effective options and because under natural recovery conditions all of the above species are expected to recover from this fire.

B. Treatment objective: N/A

C. Treatment Description: N/A

D. Treatment Cost: N/A

XVII. Discussion/Summary/Recommendations

It is recommended that surveys for several of the above species are pursued using non-BAER funding in order to establish the presence of these species. Past survey efforts were many years or decades prior to the Gap Fire, and the geographical distribution is only vaguely known. Species that are lacking data include:

- Western red bat
- Pallid bat
- Legless lizard
- California spotted owl

Species that have recent surveys but whose records need updating to assess the effects of the fire include:

- Southern California coast steelhead

XVIII. **References** See wildlife specialist report

Attachment 7: Cultural Resources

Date: July 24, 2008
Author: Steven Galbraith; Staff Archaeologist Vandenberg Air Force Base, California

I. Potential Values at Risk

The values at risk are archaeological sites, both prehistoric and historic, as well as ethnographic sites, within and in the vicinity of the burn. Many of the values are fragile and their loss considered irreversible and irretrievable. Those values are information and data contained in the archaeological sites regarding prehistoric populations, environments, and climates as well as tangible cultural items. Values include artistic and spiritual elements as represented in rock art and specific geographical places.

Vandalism or theft of archaeological materials from National Forest lands is of high concern. Ground visibility and access to areas within the burn area have been greatly enhanced due to the removal of vegetative groundcover by the fire. Large losses of archaeological materials can be expected as a result of this increased visibility and access. Areas within the burn area have a history of looting and vandalism; rock art panels in the vicinity have been vandalized, including graffiti, being shot at, and even to the extent of chiseling off sections of rock art elements.

II. Resource Condition Assessment

A. Resource Setting

Minimal survey coverage for cultural resources exists within the burn area due to rugged terrain, thick vegetation, and the paucity of related projects that would initiate Section 106 of the National Historic Preservation Act. An archaeological records search was conducted to ascertain the presence of known cultural resources within the vicinity of the burn. Since there have been only minimal archaeological surveys previously conducted within the fire area and the constraints of steep and rugged terrain, just 16 cultural properties are recorded within the burn area, 1 of which is situated on National Forest land. Surrounding areas that have been surveyed, and previous sporadic heritage related findings, clearly show that the area is rich in prehistoric use including ceremonial activities evidenced by rock art sites within the vicinity. Given the known cultural resources of the area and rugged terrain characterized by rock outcroppings, it is expected that more rock art sites may exist.

B. Findings of the On-Ground Survey

A total of 16 cultural sites are recorded within the burn area. Most of the sites, 13, are from the prehistoric period representing Native American use. Five cultural resources were inspected within the burn area, none appear to have been significantly impacted by the fire. These resources have burned over in the past and minimal impacts from the fire were noted at three prehistoric sites, the burning over of site constituents on the surface such as marine shell and lithic material. There is only one known recorded site on National Forest land, CA-SBa-0138—a Chumash rock art site. The fire burned up next to the site but there was no impacts noted to the rock art panel or associated bedrock mortars. Sites inspected on non-federal lands within the burn area include a segment of an old stagecoach route known locally as slippery rock and prehistoric sites containing marine shell and lithic material. No direct impacts to any of the sites inspected were noted during site assessments.

There are however, a number of known cultural resources recorded downstream of the burn area situated on county or public lands. These locations became increasingly inaccessible as county facilities and private landowners began to secure and lock out access. It is strongly recommended that agencies and landowners responsible for these resources inspect locations for potential site degradation by storm runoff and erosion.

III. Emergency Determination

Two factors affect the potential for adverse effects to the cultural resources within the burn area. The first is the environmental change from the severity of the burn, loss of vegetation, potential for soil erosion or deposition, and superheating of rock outcrops. The second factor is the susceptibility of the individual cultural elements that constitute the sites, or the fragility of the resource. The fire has or may change the environment for cultural resources in the following ways:

- Physical effects of fire on the rock outcrops in which the pictographs are located

- Vegetation loss and peak water flows resulting in soil loss or redeposition
- Accessibility from removal of vegetation
- Unauthorized use of Off-Highway Vehicles (OHV) in areas now easily accessible

A. Treatment Type

A three-part treatment is proposed for the Gap Fire area. The first is the placement of signs at trailheads entering recreational areas within the Forest that will advise people of the sensitivity of cultural resources on public lands and the civil and criminal penalties associated with looting, damaging, and/or vandalizing these resources. The second is to construct barriers to keep unauthorized OHV use out of archaeologically sensitive areas within the burn area. The third is monitoring and patrolling for treatment effectiveness within areas of archaeological sensitivity.

B. Treatment Objective

Specific objectives of proposed treatments are to help protect cultural resources on National Forest lands that are now easily accessible and an attractant from being impacted or adversely effected by deliberate or inadvertent damage, vandalism, and/or looting.

C. Treatment Description

Install signage that will carry a simple yet sensitive educational message about the cultural resources within the recreation areas, particularly rock art, the frailty of the images and importance of respect and not touching. The signs will also inform the public that antiquity violations are a federal offense and violators will be prosecuted.

Fencing and barricades should be constructed along West Camino Cielo Road to prevent unauthorized OHV use within archaeologically sensitive areas. Partial closure of West Camino Cielo Road will increase public visitation with in these areas. Design of the fencing and barricades will be at the discretion of the Forest but Pipe and Cable fencing and large rock boulder placement is suggested.

Monitoring is required to ensure fencing and barricading remain effective against OHV trespass in archaeologically sensitive areas and that educational and awareness signage remains present and legible. Cultural properties within these areas are now at risk of looting and vandalism. Immediate areas of concern are the burn areas south of the recreation area of Lizard's Mouth and exposed rock outcroppings. These locations as well as known cultural properties within the burn area need to be patrolled to discourage and watch for any looting or vandal activities.

It is proposed to conduct these patrols using a largely volunteer workforce from the Forest's Site Steward program that consists of both professional and vocational archaeologists who have been trained by Forest archaeological staff. An archaeologist assigned specifically for the project with oversight provided by Forest archaeological staff would supervise the patrol crew. This supervisory archaeologist will be responsible for final report preparation as well as supervision of the crew and site records, maps, and other documentation. Forest Service Law Enforcement and Wilderness Rangers will also be contacted to monitor the area for illicit activities pertaining to cultural resources.

Requirements for Proposed BAER Treatments -

Any proposed BAER treatment must comply with Section 106 of the National Historic Preservation Act and 36CFR 800.2(0). As such, prior to the implementation of any proposed treatment under BAER, consultation with the Los Padres National Forest's Planner and Archaeologist is required.

IV. Summary and Recommendations

Relatively little archaeological survey has been conducted in the burn area due to both vegetative coverage and steep terrain. There is a high probability that there are undocumented cultural resources that are now accessible within the burn area. There is now a significant threat to both documented and undocumented cultural resources on National Forest land by the increased accessibility the burn created. There will be an

expected increase of public use in culturally sensitive recreational areas from the proposed closure of West Camino Cielo Road just north of the Winchester Gun Club.

Treatments proposed include educational and awareness signage to be installed at select entry points into the burn area where the public is expected to pass, fencing and/or barricading sections of West Camino Cielo along the burn area to prevent or deter unauthorized OHV use within culturally sensitive areas, and monitoring and patrolling for effectiveness of treatments.

Conveyance Structure Qualitative Risk Matrix

Structure/Road Location	Watershed	Burn Severity	Risk of Plugging	Risk of Flood Damage	Sediment Loading Potential	Overall Risk Rating	Photo Docs	Recommended Action
Tecolote Creek/Holllister Avenue	Tecolote	**M**	**L**	**L**	**M**	**L**	✓	None
Bell Creek/Winchester Canyon Road	Winchester	**M**	**H**	**H**	**L**	**H**	✓	FEMA approved repairs Place additional rock behind wingwalls Brush clearing up and down stream
Bell Creek/Calle Real	Winchester	**M**	**L**	**L**	**L**	**L**	✓	None.
Bell Creek/Hollister Avenue	Winchester	**M**	**L**	**L**	**M**	**L**	✓	None
Glen Annie/Tecolitito/Cathedral Oaks Road	Tecolotito	**H**	**M**	**L**	**L**	**M**	✓	Some undercutting - add riprap One or two gabion boxes empty - refill Add riprap to stop erosion from road runoff - south side Brush clearing up and down stream
Glen Annie/Tecolitito/Glen Annie Road	Tecolotito	**H**	**L**	**L**	**L**	**L**	✓	Install sheet piling in some areas Clean Roadside drains Close shoulder during storms Brush clearing up and down stream
Glen Annie/Tecolitito/Glen Annie Road	Tecolotito	**H**	**M**	**L**	**L**	**M**	✓	Clean culvert bottom Clean Roadside drains Brush clearing and tree limb removal
Glen Annie/Tecolitito/Los Carneros Road	Tecolotito	**H**	**M**	**L**	**M**	**M**	✓	Privately maintained Brush clearing up and down stream

Conveyance Structure Qualitative Risk Matrix

Glen Annie/Tecolitito/Hollister Avenue	Tecolotito	**H**	**M**	**M**	**H**	**H**	✓	City of Santa Barbara FC sed removal downstream - airport
Los Carneros Creek/Cathedral Oaks Road	Los Carneros	**H**	**L**	**L**	**L**	**L**	✓	Clearing up and down stream
Los Carneros Creek/Los Carneros Road	Los Carneros	**H**	**M**	**M**	**L**	**M**	✓	Privately maintained Brush clearing up and down stream
Los Carneros Creek/Hollister Avenue	Los Carneros	**H**	**M**	**H**	**H**	**H**	✓	City of Santa Barbara check sediment
San Pedro Creek/Cathedral Oaks Road	San Pedro	**H**	**M**	**L**	**L**	**M**	✓	Clean culvert bottom Some bank erosion - exposed drain pipes
San Pedro Creek/Stow Canyon Road	San Pedro	**H**	**L**	**M**	**L**	**M**	✓	Clear large pine branch upstream
San Pedro Creek/Covington Way	San Pedro	**H**	**L**	**M**	**L**	**M**		Brush clearing up and down stream
San Pedro Creek/Calle Real/101/UPRR	San Pedro	**H**	**H**	**H**	**L**	**H**	✓	Install splitter wall, clear upstream Clean culvert bottom
San Pedro/Las Vegas/Hollister Avenue	San Pedro/LV	**H**	**M**	**H**	**H**	**H**	✓	Remove sediment
San Pedro/Las Vegas/Fowler Road	San Pedro/LV	**H**	**M**	**H**	**H**	**H**		FC sed removal downstream
Las Vegas Creek/La Goleta Road	Las Vegas	**M**	**M**	**H**	**L**	**M**	✓	Bank erosion Brush clearing up and down stream
Las Vegas Creek/Cathedral Oaks Road	Las Vegas	**M**	**M**	**M**	**L**	**M**	✓	Brush clearing up and down stream
Las Vegas Creek/Stow Canyon Road	Las Vegas	**M**	**H**	**H**	**L**	**H**	✓	Brush clearing down stream Install splitter wall, clear downstream
Las Vegas Creek/Covington Way	Las Vegas	**M**	**M**	**M**	**M**	**M**	✓	Brush clearing up and down stream
Las Vegas Creek/Calle Real/101/UPRR	Las Vegas	**M**	**H**	**M**	**M**	**M**	✓	Clean culvert bottom
San Jose Creek/Berkeley Road	San Jose	**L**	**L**	**L**	**L**	**L**	✓	Brush clearing up and down stream
San Jose Creek/Calle Real	San Jose	**L**	**L**	**L**	**L**	**L**	✓	None.

ATTACHMENT 2

County of Santa Barbara Gap Fire Emergency Watershed Protection Plan

GAP FIRE
EMERGENCY WATERSHED RESPONSE PLAN
August 2008

Santa Barbara County
Public Works Department

Introduction

The Gap Fire started on July 1, 2008, just off West Camino Cielo in the Santa Ynez Mountains above Goleta. The fire grew in the following days and ultimately burned almost 10,000 acres of land. The fire area map is shown below in Figure 1.

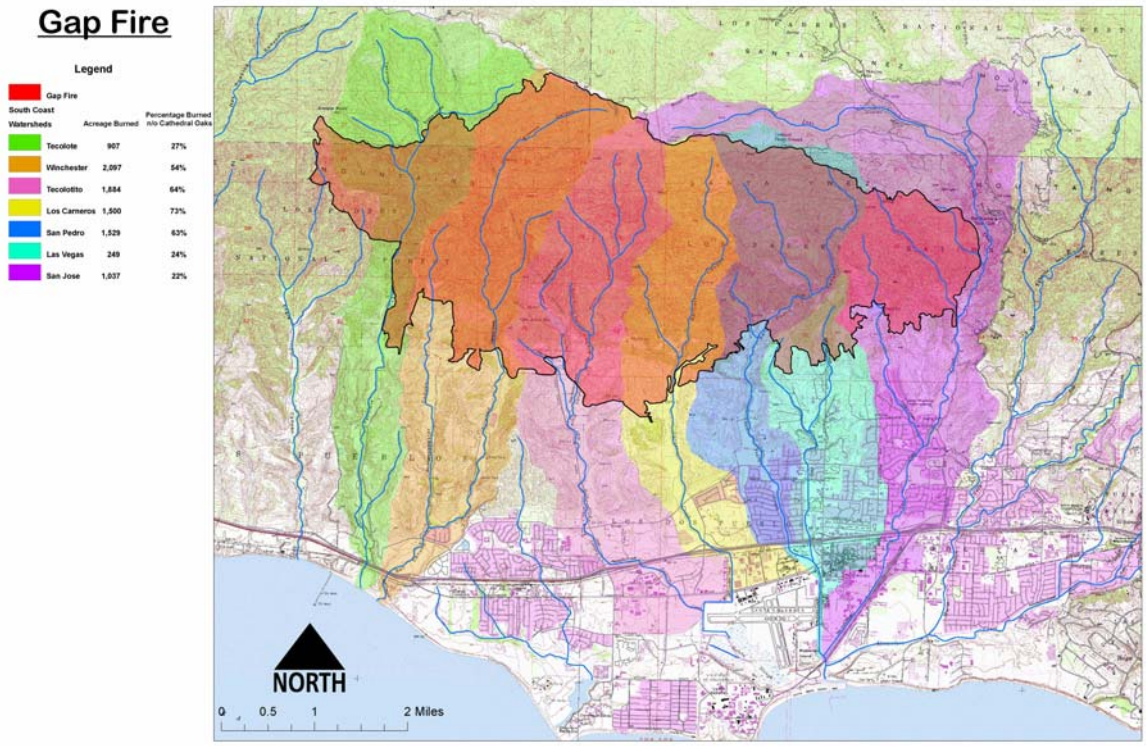

Figure 1 – Gap Fire Location

The fire burned portions of the following watersheds; Tecolote, Winchester/Ellwood, Glenn Annie/Tecolotito, Carneros, San Pedro, Las Vegas, and Fremont/San Jose. A summary of acres burned and proportion of the watershed burned is given in Table 1. Unless otherwise noted, the percent of watershed that was burned was calculated based on the watershed area above Cathedral Oaks Rd.

Table 1 – Watershed Fire Statistics

Watershed	Acres Burned	Percent of Watershed
Tecolote	984	27%*
Winchester	2,103	54%*
Tecolotito	1,892	64%
Los Carneros	1,508	73%
San Pedro	1,535	63%
Las Vegas	252	24%
San Jose	1,080	23%

*Percentages calculated using total watershed area.

The Santa Ynez Mountains rise steeply from the beach and the low-lying areas of Goleta to mountain crest elevations of about 3,000 ft. Because of the steep terrain, generation and transport of debris and sediment from the mountains to the channels that run through the City is a major concern. Larger debris typically drops out further up the canyons with the smaller sediment being deposited in lower gradient channels downstream. A dramatic increase in winter runoff is expected from the burn area, which is anticipated to exacerbate erosion and lead to increased delivery of woody debris and sediment downstream.

In past years, woody debris has contributed to flooding in areas downstream of burned watersheds by plugging culverts and causing water to back up upstream.

Downstream within the tidal influence, the coastal streams in the area converge at the Goleta Slough. The Slough experiences naturally high sedimentation rates, which over time have caused the size of the Slough to shrink from its historic extent. Sediment basins located on Tecolotito, Carneros, San Pedro and San Jose Creeks are regularly excavated in order to maintain the Slough for habitat and conveyance of water to the ocean. Sedimentation rates are expected to be especially high in the years following the Gap Fire. The Santa Barbara Airport is located within the limits of the historic Goleta Slough and is susceptible to flooding that may result from sedimentation in the surrounding creeks.

Following each major fire on U.S. Forest Service (USFS) lands, the USFS prepares a Burn Area Emergency Response Report (BAER Report) to address the impacts of the fire on the burned watersheds, predict the effects of the fire on runoff and erosion, identify values at risk from adverse impacts related to the fire, and make recommendations for mitigation measures that can be carried out on affected federal lands.

On non-federal lands, the USFS is precluded from taking any action. The Santa Barbara County Public Works Department has identified a number of initiatives that may be undertaken in these areas to lessen the adverse impacts of the Gap Fire. Those initiatives are summarized in this Gap Fire Emergency Watershed Response Plan. It is important to note that the severity and extent of the fire and its proximity to urban areas creates a risk to downstream communities that cannot be fully mitigated. This plan proposes to mitigate the risk to the fullest extent possible by the following actions:

- Prepare existing downstream creek channels to convey the maximum flow rate possible;
- Excavate existing sediment basins at the airport in order to begin the season at maximum basin capacity;
- Install debris racks to intercept woody debris;
- Provide emergency protective measures at selected key locations;
- Operate a sand bag station to provide sand and bags to residents who live downstream of the burn area;
- Coordinate with the City of Goleta to initiate a public information program to:
    - Inform the public as to how individuals can protect their property; and

    - Provide information relating to flood insurance and critical timing for the purchase of flood insurance;
- Operate an aggressive winter operations program to maintain flow conveyance and sediment basin facilities;
- Prepare locations for disposal of flood debris and sediment;
- Assist private land owners with flood protection measures; and
- Coordinate efforts and share information among responding and responsible agencies.

This plan is subject to amendment as new information becomes available and/or new projects are identified.

Mitigation Measures

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I. Pre-Winter Preparations

A. Channel and Basin Preparations

Prior to the onset of winter, the Flood Control District will work in cooperation with the Cities of Goleta and Santa Barbara to maximize the capacities of the creek systems. This work includes:

- Stream clearing of approximately 16 miles of creek channels downstream of the burn area. This work will consist of removing obstructive vegetation in the bottom of creek channels, removing any down or dead vegetation, and removing any existing debris jams and obstructions that may inhibit flow; and

- Excavation of existing sediment basins at the airport including Tecolotito Creek Basin, Carneros Creek Basin, San Pedro Creek Basin, and San Jose Creek Basin.

Stream clearing will provide maximum capacity in the stream systems while preserving the natural vegetation on the slope to help prevent erosion. With extremely high levels of sediment expected, initial excavation of the sediment basins at the airport will allow the year to start with the maximum capacity available.

The reaches of stream clearing and sediment basin excavations are shown in Appendix A.

B. Installation of Vegetation Control Structures – "Grizzly Racks"

Prior to winter, five large woody debris racks, also called "Grizzlies," are planned, one each on Ellwood Creek, Tecolotito Creek, Carneros Creek, San Pedro Creek, and Las Vegas Creek. The proposed locations of these facilities are shown in Appendix B. No debris rack is proposed on San Jose Creek because a relatively low percentage of the watershed was burned and San Jose Creek generally has a higher channel capacity and lacks restrictive culverts.

During the fall, additional debris rack locations may be identified based on risk and access. One rack currently exists on Tecolote Creek below Rancho Embarcadero; a photo of this facility is shown below in Figure 2.

Figure 2 – Existing Debris Rack on Tecolote Creek during the 1998 Floods

C. Emergency Protective Measures

Three critical locations have been identified for additional protective measures. Criteria for locating protective measures are 1) a relatively high level of risk resulting from the proximity of the site to affected creek channels; 2) documented historic flooding problems; and 3) feasibility of treatments that will provide an increased level of flood protection. Currently, the areas proposed for additional protective measures are: Los Carneros Road area at Calle Real, along San Pedro Creek near Calle Real, and at the end of Camino Rio Verde. The treatments include the use of K-Rail barriers, sandbags, berms, and culvert improvements as appropriate. Additional treatment locations may be added in the future. Figure 3 below shows similar work undertaken after the Painted Cave Fire in 1990. Locations of the proposed protective measure sites are shown in Appendix C.

Figure 3 – Placement of K-Rail after the Painted Cave Fire in 1990

D. Hydromulching of Non-Federal Lands

One fire mitigation measure proposed by the USFS is hydromulching of federal lands within the burn area where slopes have a gradient of 60% or less. Hydrolmulching is a treatment of organic mulch with the addition of a tackifier to help bind the mulch in place. The hydromulch would be applied by air.

Because the USFS is precluded from carrying out treatments off of federal lands, the responsibility for any such treatments falls to the Natural Resources Conservation Service (NRCS) in cooperation with a local sponsor. Approximately 50% of the burn area is located on non-federal lands. Treatment of the non-federal lands offers benefits to ranch owners, the downstream areas in the City of Goleta, and the airport. County Public Works will take the lead as the local sponsor and has requested the costs for this broad recovery effort be shared between the County, the City of Goleta, and the City of Santa Barbara.

The USFS will be making arrangements with a contractor for the aerial hydromulching of federal lands and has indicated that they would also make this treatment available to qualifying lands outside the USFS jurisdiction on a reimbursable basis, using the same contractor and thus utilizing the economy of scale and mobilization. If approved by the NRCS (NRCS would cover 75% of the cost), aerial hydromulching is planned for non-federal lands where slopes are less than 60% and the land cover is not urban or orchards. The proposed area to be treated is subject to approval by land owners and funding made available by the NRCS. Figure 4 is a photo of the application of aerial hydromulch by the USFS in Colorado.

Figure 4 – Aerial Hydromulching (USFS, Colorado 2002)

II. Winter Monitoring, Operations, and Maintenance

Following a fire, burned watersheds yield a dramatic increase in runoff, sediment, and debris. Throughout the winter, Public Works staff will monitor conditions and take action to remove obstructive material in order to keep the creek systems clear and open.

A. Airport Sediment Basins

On-going dredging of the airport sediment basins will be a necessary and essential element of this winter's response efforts. Without active dredging, the channels will clog with sediment, resulting in reduced capacities. It is possible that the basins could be overwhelmed in a single rain event, in which case immediate emergency desilting will be required.

Excavation of the basins is accomplished by large heavy cranes and possibly assisted by larger long-reach excavators. Sediment is temporarily stockpiled and then removed to make room for mare material as the operation continues.

Figure 5 below shows desilting of the Carneros Sediment Basin in 1995.

Figure 5 – Carneros Creek Sediment Basin, 1995

B. Maintenance of Grizzly Debris Racks

Throughout the winter, especially after individual storms, the debris racks will be inspected and cleaned of debris as necessary. The racks are cleaned using a small hydro-crane or cable winch truck. Captured vegetation will be temporarily stockpiled until it can be moved to a disposal site.

These facilities may act as temporary measures and may be removed after five to ten years if permit conditions require. Similar temporary actions were undertaken after the Marre Fire in 1994.

C. Removal of In-Stream Sediments and Debris Jams

In the event that stream channels below the fire area become choked with sediment or debris jams, the obstructions will be cleared as soon as possible using equipment or by hand clearing as appropriate and safe.

The respective Cities are responsible for maintenance and clearing of public bridges and culverts within each respective City, and for maintenance of their individual drainage systems. Channels on airport property are the responsibility of the City of Santa Barbara, with the exception of the existing defined sediment basins.

D. Emergency Contractor Assistance

The County will have contacted a variety of contractors, including crane and trucking vendors, and will have equipment identified and possibly pre-staged to assist in response efforts.

These contractors will be an integral element of the winter emergency response.

III. Debris Disposal Sites

It is probable that an enormous amount of debris and sediments will be excavated from channels, basins and other facilities in the first years following the Gap fire. Two types of debris are expected: woody vegetation and sediment. When these materials are excavated, disposal often becomes the largest obstacle to continued operations. To address the need for rapid debris disposal, two key locations for debris disposal have been identified.

A. Goleta Beach – Sediment Disposal

The shear volume of sediment that is expected to be excavated requires the use of Goleta Beach for disposal. Tens of thousands of cubic yards are expected to be removed from sediment basins, and adequate space does not exist on site to store the material. Goleta Beach is the only feasible alternative. Goleta Beach has been used for sediment disposal in many previous flood emergencies (1995, 1998, 2001, and 2005) and is the recipient of sediment excavated during routine maintenance projects.

The disposal of material at Goleta Beach benefits the beach by nourishing the beach and helping to protect it from erosion. Sediment is placed in the surf zone, allowing waves to redistribute the sand. Sediment that comes to Goleta Beach via excavation projects has a higher sand content than that delivered by the creek systems themselves because coarser sand typically settles out of the water column upstream of the beach.

B. Lake Los Carneros – Woody Debris Disposal

Cleaning of debris racks may generate a large volume of vegetation that cannot be stockpiled on site. Working with the City of Goleta, the property at Lake Los Carneros will be used to temporarily store the material. County Public Works will later mobilize a portable grinder to make mulch out of the material which will then be made available to the public.

Locations of these disposal sites are shown in Appendix D.

IV. Emergency Sand Bag Station

The County has partnered with the City of Goleta to establish an emergency sand bag distribution station in close proximity to the downstream affected areas. The station will be located at Fire Station 14 at 320 Los Carneros Road in Goleta. Sand and bags will be made available to affected downstream property owners. If feasible, an initial supply of filled sand bags may be made available.

V. Public Information

The County will be working closely with the City of Goleta to assist with a public information program. Staff from the City and County will be available to communicate to the public the increased flood risk that exists below the Gap fire burn area. Issues to discuss include:

- Explanation of the risks;
- The availability of flood insurance, including the important fact that this insurance is not effective until 30 days after it is purchased;
- Proper placement of sandbags; and
- Distribution of the existing pamphlet "Home Owners Guide for Flood Prevention and Response," including the availability of this document online.

VI. Assistance to Affected Agriculture Land Owners in and Below the Fire Area

The County has made dedicated staffing available to assist individual agricultural land owners with preventative work. The County will coordinate activities with private land owners, assist with permitting of projects proposed by the land owners, coordinate access to their property by the County to undertake work, and coordinate communication between land owners and the NRCS.

VII. Agency Coordination / Responsibilities

Following the fire, the County has coordinated with a variety of agencies. As with the Zaca Fire in 2007, a series of weekly inter-agency coordination meetings will take place beginning August 11th and will carry into the fall. An Emergency Action Plan (EAP) is also planned. The EAP will provide a comprehensive contact list of agencies, including 24-hour emergency contact numbers. Respective roles and responsibilities will be outlined to provide continued coordination into and throughout the winter.

The following is a list of agencies that have or will be contacted.

AGENCY	RESPONSIBILITIES
City of Goleta	City Streets, bridges/culverts, public information, majority of residents live in the City, operations coordination, disposal
City of Santa Barbara	Operates the airport, maintenance of channels downstream of sediment basins, provide security for desilting operations on airport, City streets, bridges and culverts
Caltrans	US 101 including bridges and culverts
US Army Corps of Engineers	Coordination of permit process, emergency direct federal assistance
US Forest Service	Prepared post-fire report (BAER Report), post-fire treatment of federal lands
Natural Resources Conservation Service	Provides emergency funding under EWP program
California Dept of Fish & Game	Emergency permitting
County OES	Emergency response coordination, Operational Area
State OES	Emergency response, State assistance
County Parks	Emergency sediment disposal – Goleta Beach

VII. Funding

Funding for the actions outlined in this plan will be from a variety of sources. The County has requested federal assistance from the Natural Resources Conservation Service (NRCS). The NRCS has provided funding through its Emergency Watershed Protection (EWP) Program after past fires such as the Painted Cave Fire and the Marre Fire. The County requested funds from NRCS following the Zaca Fire; however, no funds were available at that time.

NRCS can provide 75% of approved project costs, subject to funding, and if approved by the State, State OES can provide a portion of the 25% local match. County matching funds for the watershed response projects will come from the Flood Control District, and additional funds for other projects and winter operations will be provided by the City of Goleta, City of Santa Barbara, and Caltrans. The local share of aerial hydromulching will be shared equally by Goleta, Santa Barbara, and the County (and possibly State OES).

Gap Fire

Legend

Sediment Excavation

Stream Clearing

CCC/CDF

County 2008-09 Annual Plan

County Routine Area

Gap Fire

South Coast Watersheds

Tecolote

Winchester

Tecolotito

Los Carneros

San Pedro

Las Vegas

San Jose

NORTH

0 1 Miles

Appendix A
Excavation & Stream Clearing
Sediment Excav

Gap Fire

Legend

Debris Barrier

Gap Fire

South Coast Watersheds

- Tecolote
- Winchester
- Tecolotito
- Los Carneros
- San Pedro
- Las Vegas
- San Jose

NORTH

0 1 Miles

Appendix B
Debris Barrier Locations

Gap Fire

Legend

Protective Measures

Gap Fire

South Coast Watersheds

- Tecolote
- Winchester
- Tecolotito
- Los Carneros
- San Pedro
- Las Vegas
- San Jose

NORTH

0 1 Miles

Appendix C
Protective Measures

Gap Fire

Legend

- Disposal Site
- Gap Fire

South Coast Watersheds

- Tecolote
- Winchester
- Tecolotito
- Los Carneros
- San Pedro
- Las Vegas
- San Jose

NORTH

0 1 Miles

Appendix D
Disposal Sites

ATTACHMENT 3

Emergency Permit No. 08-158-EMP

EMERGENCY PERMIT

Planning and Environmental Services
130 Cremona Drive, Suite B, Goleta, CA 93117
Phone: (805) 961-7500 Fax: (805) 685-2635
www.cityofgoleta.org

Case No.: 08-158-EMP **Planner**: Steve Chase **Initials SPC**
Director, Planning & Environmental Services

Project Address: Tract Map 13,646 (Lots 10 thru 15 and 17), located directly south of Highway 101 and Union Pacific Railroad corridors, and east of Los Carneros Road

A.P.N.: 073-060-040, 041, 042, 043, 044 and 047 **Business Name:** Stockpile Replenish Plan North Willow Springs

Zone District: DR-20 **General Plan Designation:** Residential – Medium Density

The City of Goleta issued this Emergency Permit for the development described below, based upon the required findings and subject to the attached terms and conditions. If you have any questions regarding this Emergency Permit, please contact Mr. Steve Chase at (805) 961-7541.

PERMIT APPROVAL DATE: August 25, 2008

PERMIT EXPIRATION DATE: This Emergency Permit expires on October 23, 2008 (60-day term). One extension may be granted for a period up to 30-days, based upon emergency necessity, the permit compliance record, and a good cause finding by the Director of Planning & Environmental Services.

PROJECT DESCRIPTION SUMMARY: The City of Goleta is conducting joint pre-winter flood mitigation activities with the Santa Barbara County Flood Control District and City of Santa Barbara, in response to the Gap Fire. Flood Control has commenced with emergency excavation of sediment basins throughout the Goleta Valley watersheds. These materials need to be removed, hauled away and deposited at safely controlled stockpile sites, so as to create capacity for fire debris that will be naturally deposited in the sediment basins and creek beds during the coming winter rains.

This Emergency Permit allows for a controlled replenishment of the North Willow Springs stockpile site, located south and east of the interchange of Los Carneros Road with Highway 101 and the Union Pacific Railroad corridors. The replenished materials must originate from the pre-winter flood mitigation emergency activities of the Flood Control District and Cities of Goleta and Santa Barbara. No other sources of stockpile material are permitted under this Emergency Permit.

The North Willow Springs stockpile site is identified on sheets 1 thru 4 of preliminary plans dated August 22, 2008 by MAC Design Associates, as stamped by Registered Professional Civil Engineer, Dale W. Weber. The plans may be slightly modified as a final plan set is drafted over the next few days. The plans may be further modified during the course of the emergency activities, as field conditions and monitoring warrant, subject to approval of the Director of Planning & Environmental Services.

The North Willow Springs stockpile site received a grading permit from the City of Goleta on August 14, 2002. The permit officially expired on August 31, 2005. Over time, fill material was removed from the stockpile to accommodate property development elsewhere, including most recently, the Sumida Apartment Project. Approximately 40,000 cubic yards of imported fill material would be hauled to the site and stockpiled under this Emergency Permit. That activity would, if fully realized, replenish the stockpile to its originally permitted level of 105,000 cubic yards. Permit conditions are identified in Attachment B that control the operation of this emergency activity.

The application for this Emergency Permit was submitted by Courtney Seeple, Vice-President – Project Management for The Towbes Group, Inc., owners of the properties that underlie the stockpile and access points. The application was sponsored by The City of Goleta Community Services Department. A meeting was conducted on Friday, August 22, 2008 at Goleta City Hall between interested parties to identify the project description, term, findings and conditions of approval of this Emergency Permit. That meeting was conducted in accordance with the due diligence requirements of the Inland Zoning Ordinance (Section 35-322). The issuance of this Emergency Permit is based upon the understandings reached at that meeting.

PROJECT SPECIFIC CONDITIONS:
See Attachment B.

TERMS OF PERMIT ISSUANCE:

1. Posting Notice. A weather-proofed copy of this Emergency Permit, with Attachments, shall be posted by the Applicant in three (3) conspicuous places along the perimeter of the subject property. At least one copy of the permit shall be visible from the nearest street. This Permit shall be posted within 24 hours of the receipt of the issued permit and shall remain posted until the emergency work has been completed.

2. Date of Permit Approval/Issuance. This Permit shall be deemed effective on August 25, 2008.

3. Time Limit. This Emergency Permit shall expire 60 calendar days (October 23, 2008), but may be extended for up to 30 additional calendar days upon emergency necessity, compliant operations, and a finding of good cause by the Director of Planning & Environmental Services. Within 30 calendar days (September 23, 2008), the applicant must apply for a Land Use Permit that would otherwise be required for this development activity, and provide any requested information to the Director so that the Land Use Permit may be processed with due diligence and in a timely manner.

NOTE: This Emergency Permit does not allow construction or use outside of the project description, or terms or conditions; nor shall it be construed to be an approval of a violation of any provision of any City Policy, Ordinance or other governmental regulation.

OWNER/APPLICANT ACKNOWLEDGMENT: Undersigned permittee acknowledges receipt of this approval and agrees to abide by all terms and conditions thereof.

_____ _____
Print Name Signature Date

EMERGENCY PERMIT ISSUANCE BY:

_____ / _____
Director of Planning & Environmental Services Date

Attachment A

FINDINGS OF APPROVAL

The Director of Planning and Environmental Services may grant an Emergency Permit upon reasonable terms and conditions, including an expiration date and a requirement for subsequent discretionary and ministerial permits, as required by the Article III Inland Zoning Ordinance, if the Director finds that:

A. An emergency exists and requires action more quickly than provided for by the procedures for permit processing;

The City of Goleta, City of Santa Barbara and the Santa Barbara County Flood Control District are engaged in pre-winter storm mitigation activities. These activities are of an urgency nature in the aftermath of the recent Gap Fire. The activities include excavation of sediment debris from flood control facilities, hauling by truck and deposition/stockpiling at safe, controlled sites that are located away from the floodway of creeks and channels that cross the community.

The North Willow Springs stockpile site presents an immediate solution for the deposition of such materials. It has the capacity to receive up to 40,000 cubic yards of sediment debris. The material is ready to come and the site is readily available to receive it. More over, the winter storm season is approaching and the time for pre-winter mitigation activities is now.

Stockpiling is a development activity. The Inland Zoning Code requires the issuance of a Land Use Permit for such activity, subject to public notice and appeal. However, the timing of the underlying permit process may run counter to the emergency needs the City is facing. So as to accommodate the objectives of pre-winter storm mitigation activities, as well as to adhere to the code requirement for a Land Use Permit, a two pronged approach is being taken. An Emergency Permit is hereby issued so that stockpiling at North Willow Springs may commence. The Emergency Permit is issued based on the due diligence provisions and standards identified in Section 35-322 of the Inland Zoning Ordinance. The Emergency Permit provides a 60 + 30 calendar day term of operation. The Emergency Permit also includes conditions of approval that are set forth in Attachment B.

Most notably, the applicant must file an application within 30 calendar days for a Land Use Permit. That application is subject to full administrative processing and may be withheld or further conditioned according to what is learned and as circumstances change. That permit will address the term by which the stockpile is allowed to remain on-site, as well as measures to landscape and screen it.

As a point of reference, this Emergency Permit is subject to public posting at City Hall and onsite, public notice and an informational report-out to the City Council at its next regular meeting on September 2, 2008.

1. *The action proposed is consistent with the policies of the General Plan and the requirements of the Zoning Ordinance.*

   The emergency project was subjected to General Plan analysis and found to be consistent with its guiding principles and policies. The General Plan identifies biological resources of concern nearby, but not within the North Willow Springs stockpile site, entrances and on-site access routes. There are archeological resources in the general area as well, but again, not within the site.

   Regarding biological resources, the general area is mapped as a potential ESHA site on Figures OS 3.5 and CE 4.1 of the General Plan, relative to the presence of coastal sage scrub habitat. However, the site is largely barren, and the nearby scrub habitat is extensively disturbed, patchy and isolated from other areas of native habitat. These conditions were reported in a memorandum dated April 16, 2008 by Tricia Wotipka of Dudek Environmental + Engineering, Inc., and further validated in a field survey by staff on August 21st and a review of aerial photography at the meeting on August 22nd. No new biological impacts or a further exacerbation of impacts is expected from the emergency project.

   Regarding archeological resources, staff reviewed the emergency project relative to mapped information on-file with the UCSB Central Coast Information Center. Staff also reviewed the project against a 1999 Phase 2 survey of the area conducted by SAIC, Inc. The emergency project neither encroaches upon nor covers archeological resources in the general area.

   The emergency project was also subjected to Inland Zoning Ordinance analysis and found to be consistent, subject to permit conditions set forth in Attachment B. The subsequent Land Use Permit will set the length of time that the stockpile material will be permitted to remain on-site. The stockpile is a secondary use, meant to be temporary in nature.

The Director is required to verify the facts, including the existence and nature of the emergency prior to granting an Emergency Permit (Section 35-322.4). For the record, the Director conducted a meeting of interested parties on Friday, August 22nd that included from City staff, Anne Wells and Marti Schultz, from The Towbes Group, Craig Zimmerman and Courtney Seeple, as well as their contract civil engineer, Dale Weber from MAC Design Associates. The purpose of the meeting was to define the project, to address resources of concern, and to establish control measures to avoid significant environmental impacts to those resources. The meeting purposes were satisfied and it was determined that the operations to be conducted under this Emergency Permit could be done so in a safe, controlled and environmentally mitigated manner.

Attachment B

CONDITIONS OF APPROVAL
Emergency Permit 08-155-EMP

Standard Conditions

1. The Emergency Permit expires on October 23, 2008 (60-day term). One extension may be granted for a period up to November 22, 2008 (30-day term), based on emergency necessity, the permit compliance record, and a good cause finding by the Director of Planning & Environmental Services. In addition, the applicant shall apply for approval of a Land Use Permit by September 23, 2008 (30-days from issuance of this Emergency Permit). All information required for a complete application shall be provided accordingly.

2. This Emergency Permit is based upon and limited to compliance with the Project Description, as described in this Emergency Permit, and the conditions of approval. The applicant shall not deviate from the project description, exhibits or conditions unless such deviation is reviewed and approved by the Director of Planning and Environmental Services and determined to be in conformity with this permit. Deviations may require approved changes to the permit and/or further environmental review. Deviations without the above described approval will constitute a violation of the permit.

3. The applicant shall defend, indemnify and hold harmless the City or its agents, officers and employees from any claim, action, or proceeding against the City or its agents, officers or employees, to attack, set aside, void or annul, in whole or in part, the City's approval of the Emergency Permit.

4. In the event that any condition imposing a fee, exaction, dedication or other mitigation measure is challenged by the applicant in an action filed in a court of law or threatened to be filed therein which action is brought within the time period provided for by law, this approval shall be suspended pending dismissal of such action, the expiration of the limitation period applicable to such action, or final resolution of such action. If any condition is invalidated by a court of law, the City shall review the entire project and substitute conditions may be imposed.

5. Prior to any project activities authorized under this permit, the applicant shall secure all other necessary federal, state and local permits needed for this project. All work performed shall be in accordance with the requirements of all other applicable federal, state and local agency codes and regulations.

6. Just prior to the commencement of stockpiling and at least monthly thereafter, the applicant shall photograph the project area to document changes in landform and the applicable effect of the dust control measures and stormwater best management practices. Thirty days following completion of activities under this Emergency Permit, the applicant shall submit to the Director of Planning and Environmental Services a written report incorporating the above information and the pre- and post-disturbance photographs.

7. Equipment shall be inspected daily for fuel or fluid leaks. Leaking equipment shall be repaired or replaced immediately.

8. The Director of Planning and Environmental Services may order an immediate suspension of all or part of the work authorized under this permit if the Director determines that such action is necessary to avoid or mitigate significant impacts to health and safety or the environment.

9. Violation of any of the conditions of this permit constitutes a violation of Chapter 35 of the Zoning Ordinance. Appropriate measures include revocation of the permit, stop work order and other corrective measures as determined by the City.

Special Conditions

10. Hauling and stockpiling under this Emergency Permit is capped at 40,000 cubic yards of sediment debris from flood control sources under pre-winter storm mitigation efforts conducted in 2008 by the City of Goleta, City of Santa Barbara and/or Santa Barbara County Flood Control District.

11. The resulting stockpile at North Willow Springs shall not exceed the footprint nor dimensions of the original stockpile authorized by the City under a Grading Permit dated August 14, 2002.

12. The General Notes, Grading Notes, Erosion Control Construction Notes and Erosion Control Details provided on Sheets 1 thru 4 of the preliminary engineering plan set for the Stockpile Replenish Plan – North Willow Springs, dated August 22, 2008, by MAC Design Associates and stamped by Registered Civil Engineer, Dale W. Weber, shall be adhered to.

13. In particular, the applicant shall employ methods to inhibit dust generation and prevent off-site transportation of dust that include:
    a. Designate a person to daily monitor the dust control program and order increased watering as conditions dictate.
    b. Use water trucks or sprinklers during stockpiling and transport to prevent dust from leaving the site, and to create a crust after each day's activities.
    c. Wet down vehicle movement areas in the late morning, after work is completed for the day, and whenever wind speed exceeds 15 miles per hour.

d. Cover, kept moist or treat with soil binders any material stockpiled beyond 2 calendar days.
e. After 4 weeks of inactivity/settling, the stockpile shall be seeded and watered to foster vegetation, and/or spread with soil binders, and/or another mutually agreed upon measure to prevent dust generation and transport.

14. Trucks transporting sediment debris to and from the stockpile site shall be tarped from the point of origin.

15. Stormwater best management practices are to be implemented under the guidance of the Director of Community Services. These measures may likely include truck knock-off plates, silt fencing, straw wattles, drainage controls, and phased hydo-seeding of stockpiled areas.

16. Prior to the commencement of the emergency project, the western edge of the stockpile area is to be staked by a mutually agreed upon biologist. Encroachment into that area is strictly forbidden – it is to be a staked off-limits area.

17. In the rare event that archeological resources are encountered, work shall stop immediately. Consultation with the Director of Planning & Environmental Services, and evaluation and monitoring by a mutually agreed upon archeologist and Native American representative will be initiated at the applicant's expense prior to recommencement of operations.

18. For purposes of archeological resource protection, compaction of the stockpile area shall be limited to the fill dirt area.

19. Given the proximity of the project site to residences and business offices, all hauling and stockpiling shall be limited to Monday thru Friday between the hours of 7:00 A.M. and 4:00 P.M. No operations shall occur on State holidays. Equipment maintenance shall be limited to the same hours. Occasional exceptions may be made by the Director of Planning & Environmental Services, based on demonstrated emergency need.

ATTACHMENT 4

Resolution No. 08-__ entitled “A Resolution of the City Council of the City of Goleta, California Proclaiming a Local Emergency to Exist in the Extreme Peril Posed by the Results of the Gap Fire and Delegating Emergency Authority to the City Manager to Procure Necessary Supplies, Equipment and Services

RESOLUTION NO. 08-__

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GOLETA, CALIFORNIA PROCLAIMING A LOCAL EMERGENCY TO EXIST IN THE EXTREME PERIL POSED BY THE RESULTS OF THE GAP FIRE AND DELEGATING EMERGENCY AUTHORITY TO THE CITY MANAGER TO PROCURE NECESSARY SUPPLIES, EQUIPMENT AND SERVICES

WHEREAS, the California Government Code at Section 8558(c) defines a "Local Emergency" as: "the duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the territorial limits of a county, city and county, or city, caused by such condition as air pollution, fire, flood, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestation or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake or other conditions, other than conditions resulting from a labor controversy, which are or are likely to be beyond the control of the services, personnel, equipment, and facilities of that political subdivision and require the combined forces of other political subdivisions to combat, or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission"; and

WHEREAS, the Gap Fire began on July 1, 2008, and was contained on July 28, 2008 and during this time the fire burned and damaged over 9,500 acres in the hills around and above the residences and businesses of the City of Goleta; and

WHEREAS, on July 8, 2008, when the City Council was not in session, the Director of Emergency Services for the City of Goleta proclaimed the existence of a local emergency within the City of Goleta due to the Gap Fire. The proclamation was ratified by the City Council on July 15, 2008. The proclamation was allowed to terminate once the fire was contained; and

WHEREAS, on July 3, 2008, the Governor of California proclaimed the County of Santa Barbara to be in a State of Emergency as a result of the Gap Fire; and

WHEREAS, the United States Forest Service has identified that significant threats exist to persons and properties due to the potential for increased rain runoff from the burn areas of the Gap Fire during the upcoming 2008-2009 winter rain storm season. The increased rain runoff will considerably increase the likelihood of flooding and landslides; and

WHEREAS, Chapter 12, Section 6 of the Goleta Municipal Code empowers the Director of Emergency Services for the City of Goleta to request

the City Council to proclaim a local emergency if he believes that conditions present a threat or potentially pose a threat of disaster or of extreme peril; and

WHEREAS, the Director of Emergency Services believes that because of these extreme conditions, extensive local, state and federal resources are not required to mitigate the threats, and believes these conditions constitute a local emergency as defined in Government Code section 8558 (c) and is requesting the City Council to proclaim a local emergency due to the extreme peril to the safety of persons and property created by the impending increased rain runoff due to the Gap Fire burn areas; and

WHEREAS, California Public Contract Code section 22050 allows a public agency by four-fifths vote in an emergency to delegate authority to the City Manager to repair or re-place public facilities, take any directly related and immediate action required by that emergency and procure the necessary equipment, services and supplies for those purposes, without giving notice for bids to let contracts, upon a finding "that the emergency will not permit a delay resulting from a competitive solicitation for bids, and that the action is necessary to respond to the emergency"; and

WHEREAS, the extreme conditions created by the impending increased rain runoff due to the Gap Fire burn areas require immediate action directly related to said conditions to mitigate the extreme peril to persons and property; and

WHEREAS, City staff in consultation with experts, consultants and staff of additional agencies has diligently prepared the mitigation action plan since the Gap Fire occurred; and

WHEREAS, there is insufficient time to implement the mitigation action plan and to procure the necessary equipment, services and supplies if proceeding by formal notice of invitation for bids; and

WHEREAS, the implementation of the mitigation action plan and procurement of the necessary equipment, services and supplies can be accomplished most effectively and efficiently by the City acting through the City Manager as the Director of Emergency Services.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GOLETA DOES RESOLVE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1:

That a Local Emergency now exists in the City of Goleta.

SECTION 2:

That all of the recitals set forth herein above are true, correct and valid; and that the conditions of extreme peril to the safety of persons and property within the City of Goleta have arisen as a result of the Gap Fire. The Gap Fire burned over 9,500 acres and damaged hillsides above the populated areas of the City of Goleta. The burn damage has created conditions of extreme peril that now threaten populated areas with flooding and landslides due to the significant increase in rain runoff that will likely result during the upcoming rainy season. These conditions of extreme peril constitute a Local Emergency as defined in Government Code section 8558 (c); and

1. These conditions of extreme peril are not the results of labor controversy; and,
2. That in furtherance of this proclamation of local emergency, there is hereby invoked in the City of Goleta all of the powers and mechanisms set forth in the California Emergency Services Act (Government Code sections 8550 et seq.), Goleta Municipal Code Chapter 12, Section 6 and all other applicable laws, as said powers and mechanisms may hereafter be used by authorized personnel of the City of Goleta; and,
3. That a copy of this proclamation of local emergency shall be posted at City Hall, 130 Cremona Drive, Suite B, Goleta. Copies of this proclamation shall be made available to news media and available on the City's web site at www.cityofgoleta.org; and
4. That this proclamation of local emergency shall be effective immediately and shall remain in effect until such time that the City Council determines that a threat no longer exist; and
5. The City Council shall review and, if deemed necessary, ratify the proclamation at each successive regular City Council meeting, providing that in no event shall a review take place more than 21 days after the previous review.

SECTION 3:

The City Council finds that based upon substantial evidence presented and set forth herein that the emergency will not permit a delay resulting from a competitive solicitation for bids and that action is necessary to respond to the emergency; and

1. By at least a four-fifths majority vote and pursuant to California Public Contract Code section 22050, the City Council delegates to the City Manager the authority to repair or replace any public facility, take any directly related and immediate action required by the emergency and procure

the necessary equipment, services, and supplies for those purposes, without giving notice for bids to let contracts; and,

2. The City Manager shall report to the City Council at the next and each subsequent City Council meeting for so long as such authority shall exist pursuant to Public Contract Code section 22050 (b)(3); and,
3. The City Council shall review this emergency action at its next regularly scheduled meeting and at every regularly scheduled meeting thereafter until the action is terminated, to determine, by a four-fifths vote, that there is a need to continue the action.

SECTION 4:

The City Clerk shall certify to the adoption of this Resolution.

PASSED, APPROVED AND ADOPTED this 2nd day of September, 2008.

_____
MICHAEL T. BENNETT, MAYOR

ATTEST:

_____
DEBORAH CONSTANTINO
CITY CLERK

APPROVED AS TO FORM:

_____
TIM W. GILES
CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF GOLETA) ss.
CITY OF GOLETA)

I, Deborah Constantino, City Clerk of the City of Goleta, California, DO HEREBY CERTIFY that the foregoing Resolution No. 08-__ was duly adopted by the City Council of the City of Goleta at a regular meeting held on the 2nd day of September, 2008, by the following vote of the Council:

AYES:

NOES:

ABSENT:

(SEAL)

_____
DEBORAH CONSTANTINO
CITY CLERK

ATTACHMENT 5

Resolution No. 08-__ entitled “A Resolution of the City Council of the City of Goleta, California Adopting a City Policy for Procurement of Supplies, Equipment and Services for Disaster Projects

RESOLUTION NO. 08-__

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GOLETA, CALIFORNIA ADOPTING A CITY POLICY FOR PROCUREMENT OF SUPPLIES, EQUIPMENT AND SERVICES FOR DISASTER PROJECTS

WHEREAS, in times of emergency, there may be insufficient opportunity for the City of Goleta to procure, supplies, equipment and services necessary to respond to Local, State or Federal disasters through normal processes and by noticed competitive request for bids; and

WHEREAS, the cost incurred for supplies, equipment and services procured to respond to Local, State or Federal disasters may be eligible for reimbursement by certain State and/or Federal agencies; and

WHEREAS, the California Public Contracts Code, Section 22050 authorizes local agencies to dispense with the competitive bidding process otherwise required upon certain findings regarding an emergency; and

WHEREAS, the City of Goleta desires to establish a policy to enhance the City's ability to efficiently and effectively respond to future disasters and to fully comply with external requirements pertaining to disaster recovery reimbursements.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GOLETA DOES HEREBY RESOLVE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1:

The attached Exhibit, City of Goleta Procurement Policy for Local, State, and Federal Disasters, is hereby adopted and made a part of this resolution.

SECTION 2.
The City Clerk shall certify to the adoption of this Resolution.

PASSED, APPROVED AND ADOPTED this 2nd day of September, 2008.

_____
MICHAEL T. BENNETT, MAYOR

ATTEST:

APPROVED AS TO FORM:

_____	_____
DEBORAH CONSTANTINO	TIM W. GILES
CITY CLERK	CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF GOLETA) ss.
CITY OF GOLETA)

I, Deborah Constantino, City Clerk of the City of Goleta, California, DO HEREBY CERTIFY that the foregoing Resolution No. 08-__ was duly adopted by the City Council of the City of Goleta at a regular meeting held on the 2nd day of September, 2008, by the following vote of the Council:

AYES:

NOES:

ABSENT:

(SEAL)

_____
DEBORAH CONSTANTINO
CITY CLERK

CITY OF GOLETA	**Adopted by City Council: 9/2/2008** **Effective Date: 9/2/2008** **Date Revised:**
PROCUREMENT POLICY FOR DISASTERS	**Approved By:** **DANIEL SINGER, CITY MANAGER**

I. PURPOSE AND SCOPE

The purpose of the City of Goleta Procurement Policy for Disasters is to enhance the City's ability to efficiently and effectively respond to future disasters and to fully comply with external requirements pertaining to disaster recovery reimbursements. In conformance with Section 22050 of the California Public Contracts Code, this policy allows the procurement of services, equipment and supplies without the competitive bidding process otherwise required upon certain findings regarding local, state or federal emergencies. Furthermore, adherence to this policy while conducting authorized emergency procurement activities will assist the City in obtaining reimbursement by certain state and/or federal agencies for expenses pertaining to local, state or federal emergencies.

II. POLICY

A. Selection of Contractors for Citywide Emergency Work:

1. A list of eligible general contractors, consultants, suppliers or other services providers (hereinafter "Contractors") will be established once a year (usually in the fall) by soliciting interest from said contractors. This list is hereinafter referred to as the "Disaster List." The interest will be established by sending out a letter to all contractors that have submitted bids to City projects in the past and also by advertising in the local newspapers and the City's website. The letter will inform contractors that the City is establishing a list of eligible contractors for Citywide Emergency Work for disasters.

2. In order to be considered for inclusion, responding parties will be asked to submit a letter of interest that includes a list of equipment, supplies or services that they have available, and a

desire to perform disaster related work or deliver disaster related services. Each City department will review the contractor's letters of interest that apply to that department's area of responsibility. Each department will also establish blanket purchase orders with those contractors that meet the needs of that department. There shall be no limit as to the number of blanket purchase orders each department can establish.

3. Departments will respond to each contractor's letter of interest with either a letter of acceptance or denial within a reasonable amount of time. As part of establishing blanket purchase orders, insurance certifications indicating the City of Goleta as an additionally insured and for amounts equal to those for the City's applicable insurance requirements shall be obtained. These insurance certifications can be requested as part of the letter of acceptance.

4. In the event of a disaster, all work shall be performed on an hourly basis as needed. Hourly rates for said work shall be based on the rates submitted and approved during the contractor selection process.

5. The selection of contractors to be offered blanket purchase orders shall follow 44CFR 13:36 (b)(8) and 13:36 (c)(4). In future years, Contractors will be selected for inclusion on the City's Disaster List based on their performance of similar contract work for previous disasters.

6. Only contractors with blanket purchase orders shall be used to perform emergency work for declared disasters. The only exceptions will be contractors performing specialty work.

B. Assignment of Contractors

1. The assignments for contractors shall be initially based on the proximity of contractor's equipment and personnel to the required emergency work that is necessary for the health and safety of the public. The City will be responsible for assignment of contractors to meet specific needs.

2. Due to the size of the City and the limited number of contractors in this area, it is likely that there will be more emergency work to be completed than contractors to perform the work. During the first two (2) weeks of the declared disaster, all debris removal and emergency opening work that is necessary to provide for the health and safety of the public shall be completed

through the use of the established blanket purchase orders and City Council contracts specifically for emergency response. This work shall not proceed without a written scope of work and a not to exceed amount agreed upon by the City and Contractor's representatives.

3. For the first two (2) weeks of a declared disaster, contractors will be allowed to move from one project location to the next within the City with an approved written scope of work and not to exceed amount for each separate location. No permanent restoration work, that has not already begun, shall be started without a competitive bid (informal or formal), unless the situation warrants this to protect the health and safety of the public. The situation must be properly documented and approved prior to proceeding with the work. It is imperative that work does not progress from Emergency Response to Permanent Restoration without a competitive bid.

4. After the initial two (2) weeks of the declared emergency, or whenever the immediate threat to health and safety has abated (whichever is longer), construction work (debris removal, emergency opening and permanent restoration) shall be completed in accordance with the informal bidding process as defined below. Informal bidding for construction work will consist of telephone invitations to a minimum of 3 qualified contractors, basic specifications and a written scope of work for the work to be completed, a job walk with prospective bidders, submitted sealed bids within 24 hours, and immediate commencement of work. There shall be no monetary limits on this policy. Telephone calls to qualified contractors will be documented. If more than two contractors indicate on the telephone that they are not interested in competing for the project, a maximum of two additional contractors will be called. In other words, a maximum of 5 contractors for any one location will be called and the telephone calls will be documented.

5. As allowed by 44CFR 13:36 (b)(10)(i)(ii), if after two (2) weeks a situation arises where a scope of work and a not to exceed amount cannot be accurately defined and the emergency situation still poses a threat to the health and safety of the public as determined by the City Council (or their designee), then a time and materials contract (Force Account) with a chosen contractor shall be used.

6. After 180 days of the declared emergency, all debris removal and emergency opening category work shall be bid according to

standard California Public Contract Code process, unless Paragraph (4) is enacted.

7 After eight (8) weeks, or the end of the declared incident period (whichever is longer) of the declared emergency, all permanent restoration work shall be formally bid according to the California Public Contract Code.

C. Emergency Contracts

1. Contractors will be compensated for labor, equipment and materials as specified in the establish blanket purchase orders. If it becomes necessary for a contractor to utilize a piece of equipment or provide services or supplies that do not have an agreed upon rate or unit cost prior to the start of work, the rates (including overtime and standby time) or unit costs for such equipment, services or supplies shall be agreed upon by the City and Contractor's representative in writing prior to the equipment being brought to the job site.

2. A detailed scope of work and a not to exceed amount for the work will be prepared and agreed to by the City's representative and the Contractor's representative in writing prior to beginning any work as defined above. The scope of work should include a sketch of the repair (if appropriate), itemized components of work, units of the components with a unit cost (if possible), and a total cost for the repair work. If this is not possible, then the work can proceed based on Force Account, but must have a not to exceed amount and must be competitively bid.

3. If project costs increase to the point that they will exceed the original monetary cap limit or the damage situation changes as to require a modification to the scope of work, a contract change order authorizing the additional work and cost must be completed. The contract change order shall be fully executed by the City's and Contractor's representatives in writing prior to the work commencing.

4. A City representative shall insure that the work is being done in conformance with the agreed upon scope of work on a daily basis. There shall be daily review, agreement and signoff of Daily Extra Work Reports by the City representative and the Contractor's representative regarding wages, time, and material.

D. Audit Requirements:

The letter soliciting interest from the contractors shall inform them that there are local, federal and state audit requirements which will require them to keep their disaster specific contracts and support documentation for a period to be determined by the City. The City is responsible to ensure compliance for reimbursement awards received by the City. To ensure compliance, audits of the City and the contractor's files may be conducted prior to the award; during the contract term of the award, and/or after the award has been received by the City. Compliance audits of the City or the contractors will be designed to ensure that the procurement, receipt, and payment for goods and services comply with laws, regulations, and the provisions of contracts or grant agreements. Specific audit steps may include a review of the contractor's transactions and records to confirm necessary compliance provisions.

PROCUREMENT POLICY FOR DISASTERS

ACKNOWLEDGEMENT FORM

I have received and read the City of Goleta Procurement Policy for Disasters and understand its provisions. I further understand that when I sign this acknowledgement form it will be placed in my personnel file.

_____

Employee (PRINT NAME)

_____

Signature

_____

Date

ATTACHMENT 6

Resolution No. 08-__ entitled “A Resolution of the City Council of the City of Goleta, California Amending the City of Goleta Operating and CIP Budget for Fiscal Year 2008/2009 Related to the Winter Storm Preparation Projects

RESOLUTION NO. 08-__

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GOLETA, CALIFORNIA AMENDING THE CITY OF GOLETA OPERATING AND CIP BUDGET FOR FISCAL YEAR 2008/2009 RELATED TO WINTER STORM PREPARATION PROJECTS

WHEREAS; In July 2008 the Gap Fire burned approximately 9,500 acres in coastal watersheds above the City of Goleta; and

WHEREAS, the burned condition of the watersheds above the City of Goleta poses a significant flood threat due to increased runoff debris production and erosion potential during winter storm events; and

WHEREAS, the City of Goleta has assessed the flood threat associated with the Gap Fire and has identified from specific mitigation measures to reduce the flood threat; and

WHEREAS, these pre-winter storm mitigation measures are described in the City's "Gap Fire Emergency Response Plan"; and

WHEREAS, the costs of the mitigation measures identified in said plan have been estimated; and

WHEREAS, the approved FY 2008-09 budget does not include appropriations and revenues associated with said mitigation measures; and

WHEREAS, the City of Goleta desires to fund the identified mitigation measures and make appropriate revenue and appropriation adjustments for the pre-winter storm mitigation measures; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GOLETA DOES RESOLVE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1:

The City Council hereby approves the GAP Fire Pre-Winter Emergency Response Plan.

SECTION 2:

The mitigation measures identified in the "Gap Fire Pre-Winter Emergency Response Plan" and estimated costs as follows:

Project	Estimated Total Cost
Winchester Canyon Road Culvert Repair @ Winchester Canyon Creek	$200,000
Calle Real Culvert Modifications @ San Pedro Creek	$30,000
Calle Real Overland Escape Improvements from Valdez to Vega	$75,000
Stow Canyon Road Culvert modifications at Las Vegas Creek	$15,000
Hydro Mulching of Selected Upland Areas	$70,000
Public Information Program	$10,000
Sand Bag Distribution	$5,000
Totals	**$405,000**

SECTION 3.

The City of Goleta Operating Budget for Fiscal Year 2008-09 is hereby amended as follows:

101-4-8500-905	Transfer from Reserves	$	85,000
411-4-9028-220	Grant Proceeds	$	172,600
412-4-9028-220	Grant Proceeds	$	22,500
411-5-9028-561	Contract Services - Emergency Response	$	172,600
412-5-9028-561	Contract Services - Emergency Response	$	22,500
205-5-9028-561	Contract Services - Emergency Response	$	124,900
101-5-9028-561	Contract Services - Emergency Response	$	70,000
101-5-9028-102	Conference, Meeting, Travel, & Training	$	1,500
101-5-9028-111	Special Supplies	$	6,500
101-5-9028-115	Printing & Copying	$	3,000
101-5-9028-117	Advertising	$	1,000
101-5-9028-118	Minor Equipment	$	3,000

SECTION 3.

The City Clerk shall certify to the adoption of this Resolution.

PASSED, APPROVED AND ADOPTED this 2nd day of September, 2008.

_____
MICHAEL T. BENNETT, MAYOR

ATTEST:

_____
DEBORAH CONSTANTINO
CITY CLERK

APPROVED AS TO FORM:

_____
TIM W. GILES
CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF GOLETA) ss.
CITY OF GOLETA)

I, Deborah Constantino, City Clerk of the City of Goleta, California, DO HEREBY CERTIFY that the foregoing Resolution No. 08-__ was duly adopted by the City Council of the City of Goleta at a regular meeting held on the 2nd day of September, 2008, by the following vote of the Council:

AYES:

NOES:

ABSENT:

(SEAL)

_____
DEBORAH CONSTANTINO
CITY CLERK