

CITYGATE ASSOCIATES, LLC

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El Dorado County & Fire Districts Fire and Emergency Services Study

May 24, 2010

Board of Supervisors Briefing



Policy Choices Framework

- No mandatory federal or state minimum service levels
- If fire services are provided, they have to be delivered safely, following standards
- Communities have the level of fire services that they need and can afford
- The challenge is matching need with fiscal capacity

Fire Crew Deployment

- **Speed** of the attack – first-due neighborhood units
 - This unit *minimizes and terminates* the incident
- **Weight** of the attack – first alarm multiple units
 - This force *stops the escalation* of the incident

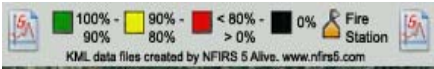
What is Working Well

- **Finding 1:** Citygate finds the response time performance in the Western Slope area comes very close to meeting best practices for the suburban and rural areas covered.
- **Finding 3:** Citygate finds the response time performance in the Basin area comes very close to meeting best practices for the suburban and rural areas covered.

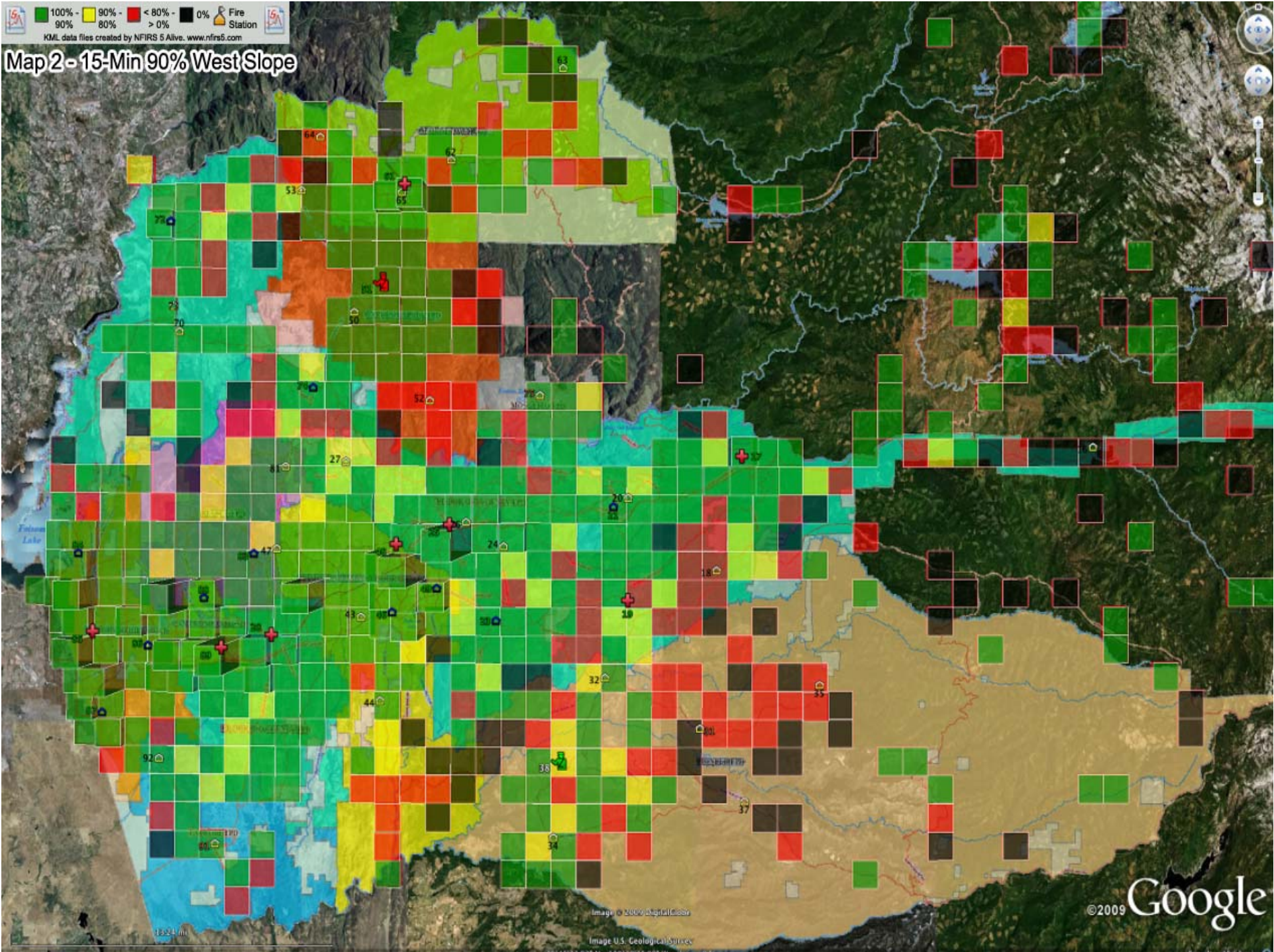
What is Working Well (cont.)

- **Finding 5:** When the mapping analysis is considered along with the response statistics and the daily staffing plan, it is apparent the fire stations themselves are well located on the road network.

The career staffed stations and ambulances are appropriately located in the higher call for service areas.



Map 2 - 15-Min 90% West Slope



100% - 90% - < 80% - > 80% - 0% Fire Station

KML data files created by NFIRS 5 Alive. www.nfirs5.com

Map 4 - 15-Min 90% Basin

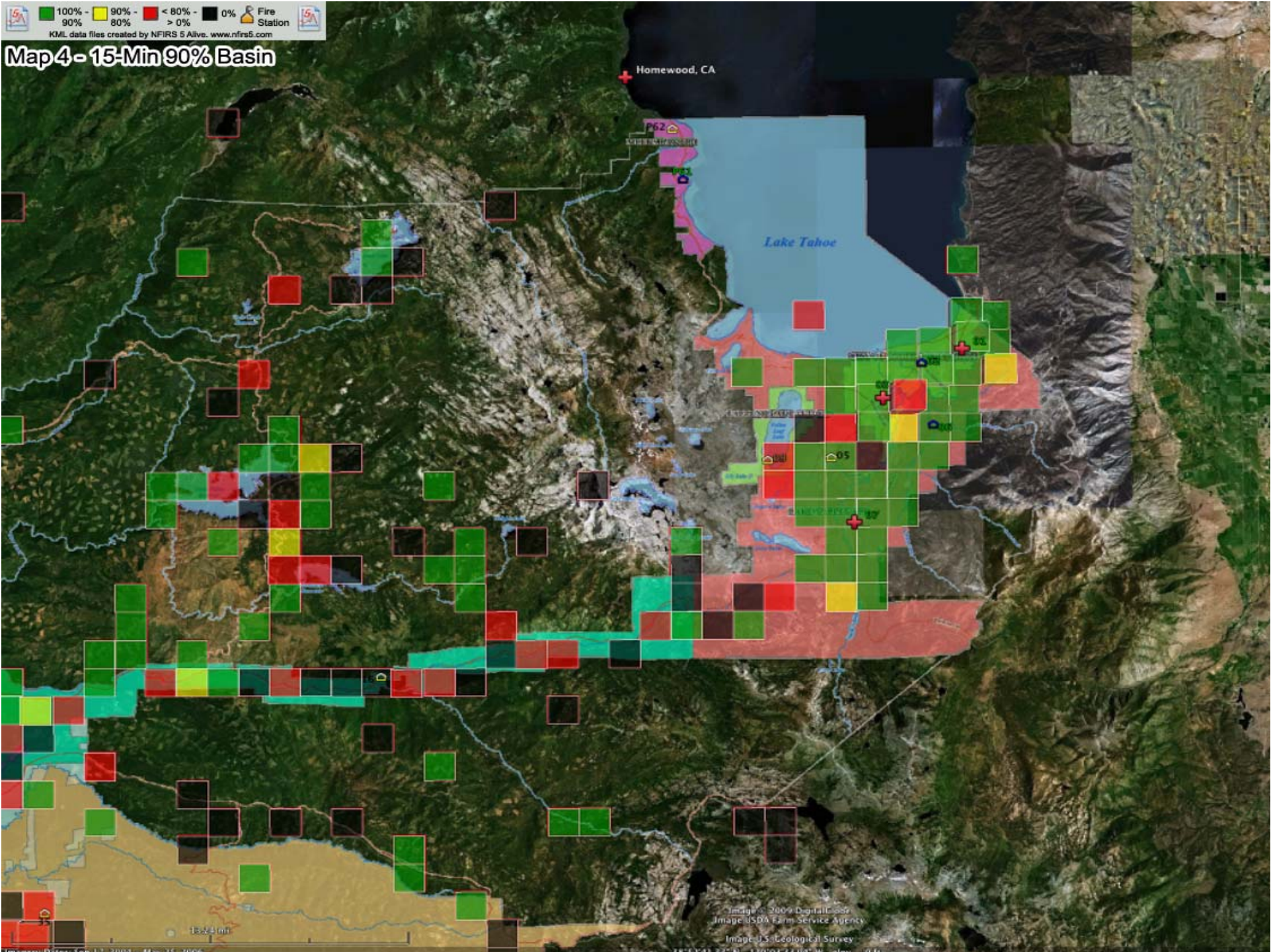
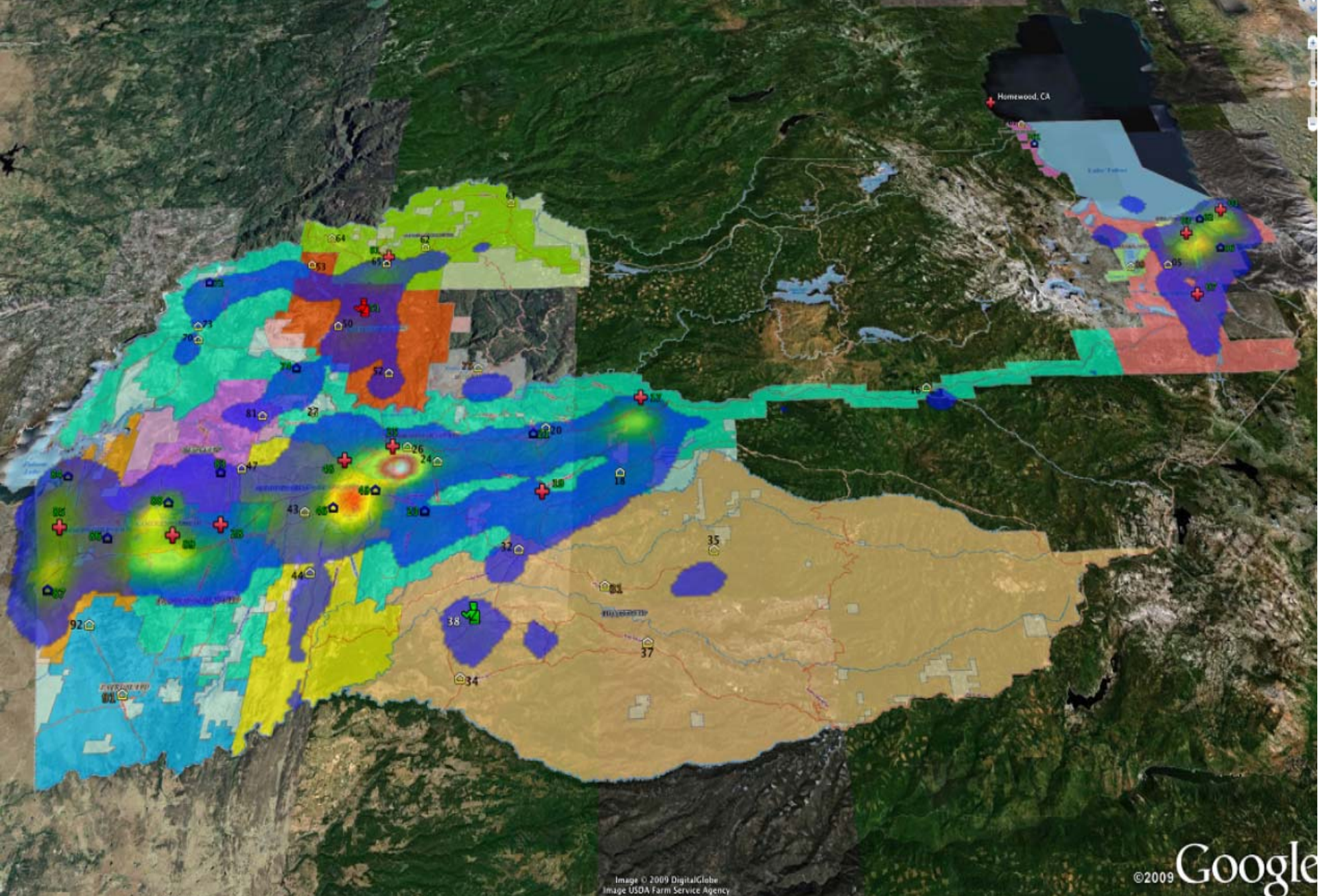
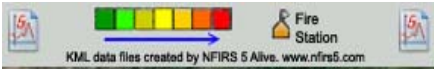


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 Image © U.S. Geological Survey

Map 6 - Density of EMS Incident Locations

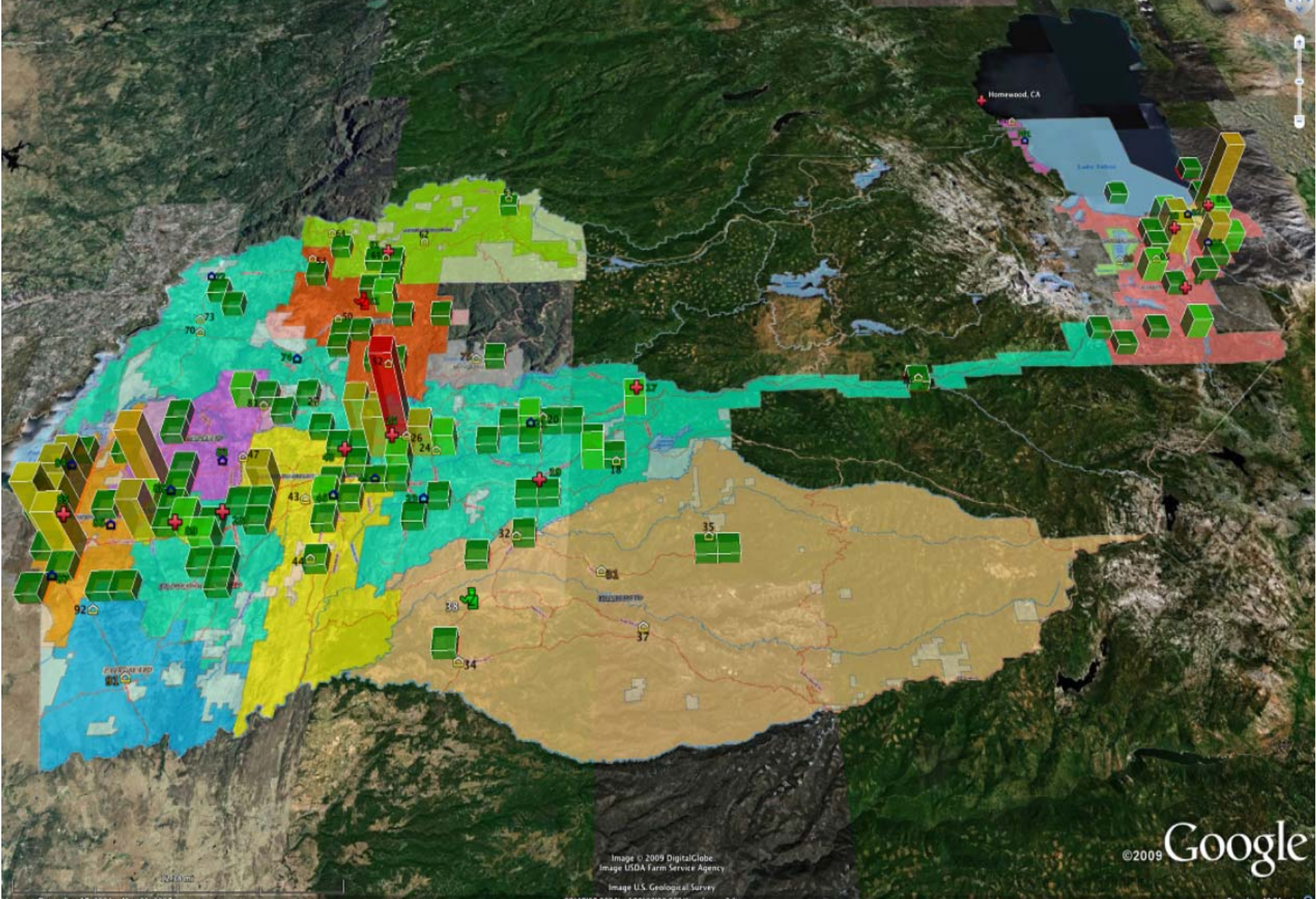


KML data files created by NFIRS 5 Alive. www.nfirs5.com



The legend includes a color scale from green to red, a 'Fire Station' icon, and a small NFIRS 5 Alive logo.

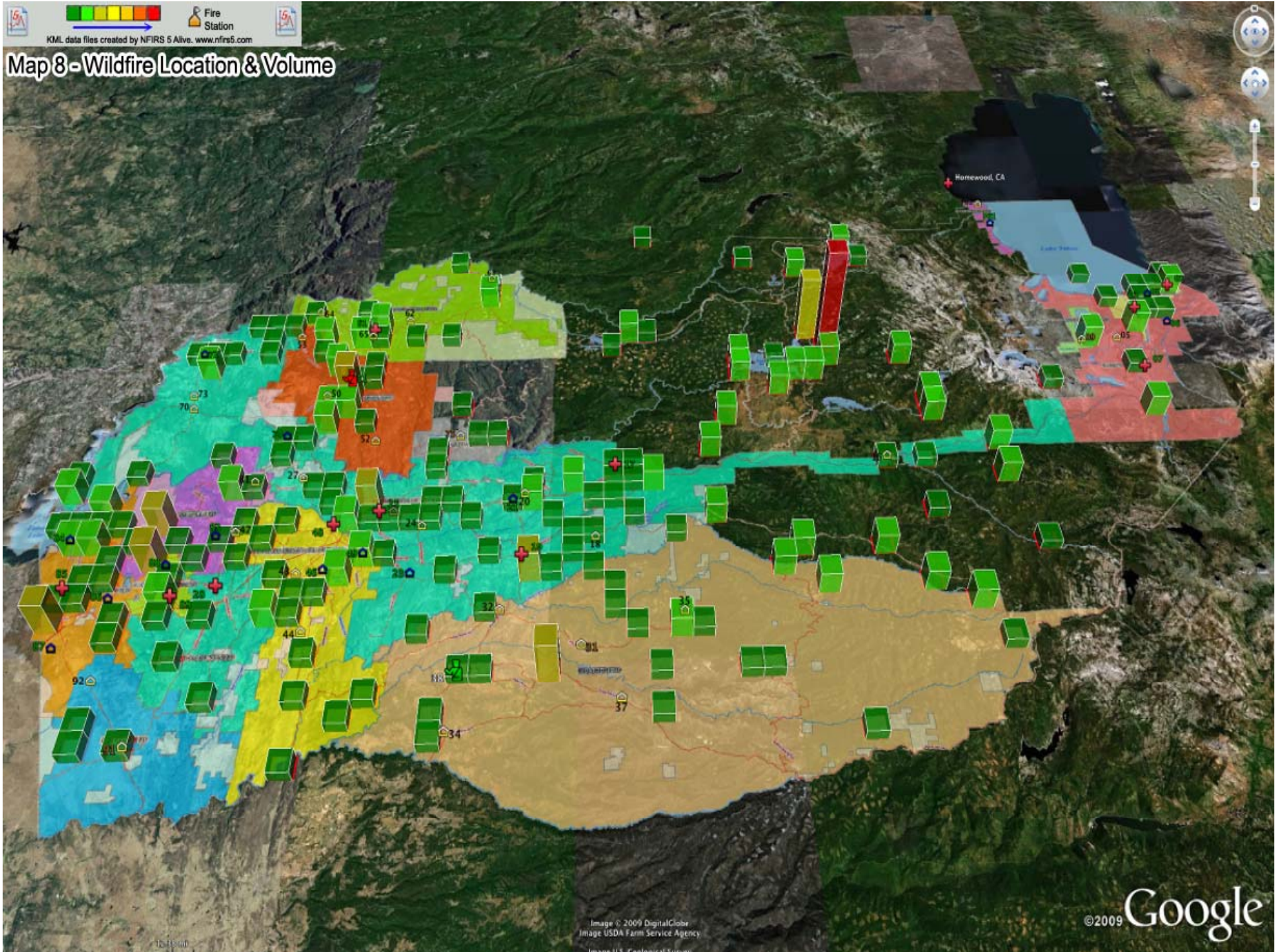
Map 7 - Building Fire Location & Volume



KML data files created by NFIRS 5 Alive. www.nfirs5.com

Fire Station

Map 8 - Wildfire Location & Volume



Three Challenges

- Field operations - deployment
- Fire apparatus and station replacement
- Cost and funding capacity

Overall Fiscal and Deployment Condition of the Fire Agencies

Best Condition	Modest Condition with Stretched Services	Unstable Condition
Cameron Park	El Dorado County	Fallen Leaf Lake
Diamond Springs	Rescue	Garden Valley
El Dorado Hills		Georgetown
Lake Valley		Latrobe
Meeks Bay		Mosquito
South Lake Tahoe		Pioneer

Challenge 1: Field Operations

Deployment (Fire Stations and Staffing)

- **Finding 6:** While the stations are well located, the region *does* have a staffing per unit issue.
- **Finding 7:** In addition to the thin daily quantity of on-duty firefighters in fire stations, in the West Slope, 38 percent of the total career firefighters on-duty per day is assigned to ambulances.
- In the Tahoe Basin, it is 32 percent of the on-duty firefighters.

Challenge 1: Field Operations Deployment (Fire Stations and Staffing)

- **Finding 8:** The current paramedic deployment plan using principally ambulances in the West Slope means there is an equity of coverage issue in the outlying areas.
- A common practice in California when this happens is to use paramedic-staffed engines to provide faster access to a paramedic.
- Five fire districts already operate paramedic engines at their expense, this can be expanded and funded with the EMS JPA.

Challenge 1: Field Operations Deployment (Fire Stations and Staffing)

- **Finding 9:** The current fire service deployment measures in the County General Plan do not fully meet best practice recommendations by defining the time measurement starting point, specific population density measures, the desired outcome and a response time/performance goal for multiple units.

Citygate's Proposed Deployment Measures Based on El Dorado Population Densities

	Structure Fire Urban Area 90% Goal	Structure Fire Emerging Suburban Area 80% Goal	Structure Fire Rural Area 80% Goal	Wildfires Populated Areas 90% Goal	Remote Areas
	>1,000 people/sq. mi.	500-1,000 people/sq. mi.	<500 people/sq. mi.	Permanent open space areas	
1st Due Travel Time	4	10	14	10	10
Total Reflex Time	7	13	17	13	13
1st Alarm Travel Time	8	15	20	12	20
1st Alarm Total Reflex	11	18	23	15	23

Staffing Headquarters – FY 08-09

Agency	Total Full-Time Chief Officers
<i>Tahoe Basin</i>	
Fallen Leaf Lake CSD	1
Lake Valley FPD	4
Meeks Bay FPD	1
South Lake Tahoe FD	5
<i>West Slope Agencies</i>	
Cameron Park CSD	2
Diamond Springs/El Dorado FPD	3
El Dorado County FPD	8
El Dorado Hills County Water District	4
Garden Valley FPD	1.5
Georgetown FPD	1
Latrobe FPD	0.33
Mosquito FPD	0.3
Pioneer FPD	1
Rescue FPD	1

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Current Basin

Daily *Minimum* Wide Staffing

Agency	Career	Paid Call/Vol	Total
Fallen Leaf Lake CSD	1		1
Lake Valley FPD	6	1	7
Meeks Bay FPD	2	0	2
South Lake Tahoe FD	10	1-3	10-13
Totals	19	1-4	20-23

Current West Slope

Daily *Minimum* Wide Staffing

Agency	Career	Paid Call/Vol	Total
Cameron Park	6	2	8
Diamond Springs	6	1	7
El Dorado County	27	0	27
El Dorado Hills County Water Dist.	16	0	16
Garden Valley	2	0	2
Georgetown	4	0	4
Latrobe	0	5	2
Mosquito	2	0	2
Pioneer	4	0	4
Rescue	2	0	2
Totals	42	8	74

Current Countywide Daily Minimum Wide Staffing

Agency	Unit Count	Career	Paid Call/Vol	Total	Total Vols
<i>Tahoe Basin</i>					
Totals	8-Eng; 3-Amb	19	1-4	20-23	75
<i>West Slope Agencies</i>					
Totals	24-Eng; 8-Amb; 3-WT; 1-Tk	42	8	74	247
Countywide	32-Eng; 11-Amb; 3-WT; 1-Tk	61	9-13	94-97	322

Improved Deployment

- **Recommendation 3:** As the economy allows, a minimal staffing plan would be for every fire district in its most populated areas to operate at least one 2-firefighter unit 24/7/365.
- This could be done as is currently with a variety of staffing plan combinations from career to per diem to volunteer firefighters.

Challenge 2: Fire Apparatus Assessment and Replacement

- Need to assess fire apparatus and develop a replacement plan with financing
- Most of the agencies have capital needs that should be met over the next five years in order to provide effective and safe equipment. Many of the districts do **not** have the fiscal resources to meet these needs

Station and Apparatus Needs – Tahoe Basin

Agency	Station Needs	Immediate Apparatus Replacement Need	Next Five Years Apparatus Replacement Need
Fallen Leaf Lake CSD			\$700,000
Lake Valley FPD			\$400,000
Meeks Bay FPD	1		\$650,000
South Lake Tahoe FD	3	\$800,000	\$400,000

Station and Apparatus Needs – West Slope

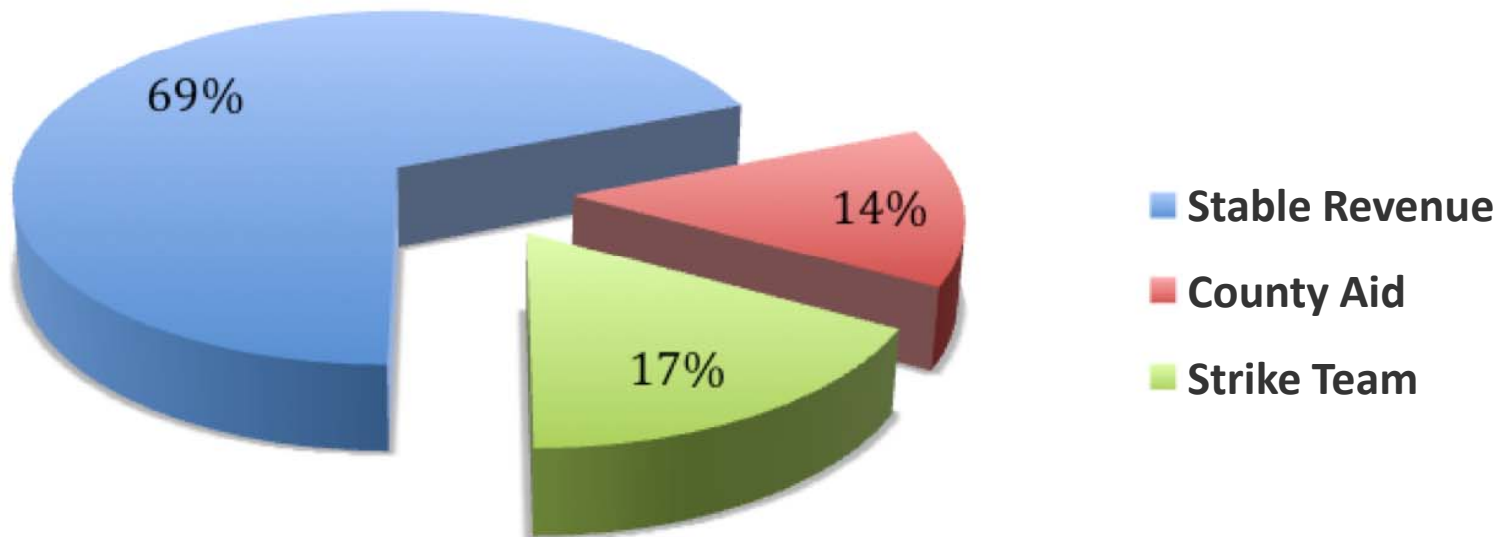
Agency	Station Needs	Immediate Apparatus Replacement Need	Next Five Years Apparatus Replacement Need
Cameron Park			
Diamond Springs/El Dorado	1		\$800,000
El Dorado County FPD	2	\$1,900,000	\$2,800,000
El Dorado Hills County Water	2		\$1,000,000
Garden Valley FPD		\$1,100,000	
Georgetown FPD	1		\$2,000,000
Latrobe FPD		\$1,100,000	
Mosquito FPD			\$400,000
Pioneer FPD			\$700,000
Rescue FPD			\$400,000
Countywide Total	10	\$4,900,000	\$10,250,000

Challenge 3: Costs and Funding Strategies

From a fiscal and deployment perspective, the fire service agencies fall into three broad categories:

- 1) Those with a suitable and stable revenue base that permits the provision of quite adequate fire and EMS services;
- 2) Those that, in spite of a larger revenue base, are stretched quite thin across a large geographic area and are not able to provide equity of coverage throughout their district;
- 3) Those that are small and providing very modest service on an unstable revenue base consisting of year-to-year County funding and Strike Team revenue from the state.

Total Revenue Sources



Size of Reserve and Stability of Revenue – Tahoe Basin

Agency	Total FY 2008-09 Revenue	County FY 2008-09 Contribution	End of FY 2008-09 Reserves	County and Other Non-recurring Revenue as a Percent of Total Revenue
Fallen Leaf Lake CSD	\$266,685	\$60,454	\$136,480	30%
Lake Valley FPD	\$5,636,090	\$0	\$2,096,011	22%
Meeks Bay FPD	\$1,318,563	\$312,945	\$1,141,864	35%
South Lake Tahoe FD	\$7,068,066	\$0	N/A	N/A

Size of Reserve and Stability of Revenue – West Slope

Agency	Total FY 2008-09 Revenue	County FY 2008-09 Contribution	End of FY 2008-09 Reserves	County and Other Non-recurring Revenue as a Percent of Total Revenue
Cameron Park CSD	\$2,703,646	\$0	N/A	N/A
Diamond Springs/El Dorado FPD	\$4,345,266	\$0	\$1,102,883	16%
El Dorado County FPD	\$10,957,370	\$0	\$6,230,866	5%
El Dorado Hills County Water District	\$16,404,780	\$0	\$20,571,606	5%
Garden Valley FPD	\$2,366,649	\$205,285	\$625,873	73%
Georgetown FPD	\$1,294,174	\$36,240	\$339,375	35%
Latrobe FPD	\$372,733	\$168,978	\$259,476	60%
Mosquito FPD	\$517,418	\$35,047	\$129,714	25%
Pioneer FPD	\$1,155,646	\$279,047	\$387,978	36%
Rescue FPD	\$1,982,293	\$202,351	\$1,198,125	37%

Current Assessments and Estimated Assessment as Replacement Revenue

Agency	County Funding	Total Fire and EMS Annual Tax and Assessment on Typical Single-Family Home FY 09-10	Estimated Annual Tax/Assessment Increase per Dwelling Unit to Replace County Funding
<i>Tahoe Basin</i>			
Fallen Leaf Lake CSD	\$60,454	\$419	\$349
Meeks Bay FPD	\$312,945	\$270	\$172
<i>West Slope Agencies</i>			
Garden Valley FPD	\$205,285	\$131	\$105
Georgetown FPD	\$36,240	\$109	\$24
Latrobe FPD	\$168,978	\$80	\$420
Mosquito FPD	\$35,047	\$229	\$64
Pioneer FPD	\$279,047	\$25	\$100
Rescue FPD	\$202,351	\$155	\$86

EMS JPAs Assessment

- The last CSA 7 fiscal projection by the County reflects a significant decline in the Fund Balance, but more recent data available to Citygate indicates a more favorable five-year projection.
- A reassessment of the fiscal projections and a consideration of raising ambulance rates may very well indicate that the resources are there in CSA 7 to permit the CSA to fund a modest service level increase in the more remote areas.

Mergers

- There are mergers, contracts and JPAs in use
- Need to determine how to handle the fact that consolidating agencies may have different assessment district rates, creating an impression of fiscal inequity among the property owners of newly consolidated districts
- If there is functional consolidation or contracts for service, what is the appropriate cost sharing formula?
- There are not significant savings in headquarters positions

Next Steps: Step One

- **Recommendation 4:** Contract with CAL FIRE or similar agency with credentialed fire apparatus mechanics to assess all of the fire apparatus in all of the agencies with the possible exception of El Dorado Hills, El Dorado County and Cameron Park, which use fire certified mechanics.

Next Steps: Step One (cont.)

- The assessment is to provide a recommendation regarding whether the equipment should be upgraded to meet safety standards and at what estimated cost, operated as front line or reserve, and whether it should be side lined and not operated by the District.
- If total replacement is recommended, the analysis should provide an estimate of the year in which the equipment should be replaced.

Next Steps: Step Two

- **Recommendation 5:** Assist the districts with temporary funding for the next two fiscal years at a level that permits the continuation of the current level of service, using fire district reserves where possible. A stipulation of continued assistance would be that the agencies actively participate in a formal process leading to a re-organization that would most optimize fire and EMS service operations and provide a path to fire district financial self-sufficiency.

Next Steps: Step Two (cont.)

- **Recommendation 6:** While Georgetown Fire Protection District and Meeks Bay Fire Protection District can operate for a period of time without immediate supplemental funding, their long-term needs will eventually outstrip their finite revenue bases. As such, they should be encouraged to fully participate in any re-organization planning.

Next Steps: Step Two (cont.)

- **Recommendation 7:** The County should examine the Ambulance transport rates in both JPAs, keep them current with the marketplace, and as revenues allow, provide supplemental funding to encourage the use of paramedic engine companies in the areas without ambulances.

Next Steps: Step Three

- Adopt the technical deployment performance measures identified in this study as Recommendations 1-3.
- After completion of the studies, the County could explore the option of providing the financing for construction of new fire stations where the local agencies cannot obtain the financing themselves.

Next Steps: Step Three (cont.)

- After completion of the studies, the County might offer to facilitate a joint bid for all fire apparatus in order to obtain better prices.
- After completion of the studies, several or all the districts could develop a regional approach to providing training to fire agencies, possibly using one of the largest agencies in the County to provide the regional training overview and delivery.

Questions?