



Triggers and Thresholds

Paul Luizzi
Fire Chief

Objectives

- Review current guidelines used for deployment of fire stations.
- Use of Center for Public Safety Excellence (CPSE) Standard of Coverage (SOC)
- Establish direction for future deployment of fire stations.



Definitions

- Standard of Cover
 - The SOC is the guiding document that establishes response recommendations for fire service areas. It is the product of a ICMA and Commission on Fire Accreditation International
- Call Volume
 - Total number of dispatches regardless of location or jurisdiction
- Travel Time
 - Time enroute to the call (Brake to Brake)
- Response Time
 - Dispatch + Turnout + Travel Time = Response Time
- First Due
 - Fire stations area of responsibility determined by distance (GIS Arcview) through Phoenix Regional Dispatch Center
- Polygon
 - A planning tool used to identify potential fire station locations



History of Triggers and Thresholds

- On July 14, 2008, Mayor and Council approved the final Sonoran Valley Public Safety Master Plan.
- City needs to pursue a rational approach to its impending growth in order to maintain a fiscal balance along the way.





Sonoran Valley Public Safety Master Plan

- Goal : Ensure that fire protection, EMS facilities, and services are located to ensure acceptable response times

Current Guidelines

- If more than 35% of the homes/businesses in a new area being served are 3-4 miles from a fire station, and/or 20-25% of the response times are taking longer than 8 minutes, the minimum action would call for the installation of a temporary fire station.
- Could utilize a 2 person “frontier unit” scalable approach to services.



Current Guidelines

- If more than 50% of the structures are 5 miles or more from the station and/or 30% of the response times exceed 10 minutes, then a new permanent fire station is required.
 - Staffing would go to 4 persons.



Triggers & Thresholds

Choices	Criterion	
	Response Time	Building Inventory
Temporary facilities and minimal staffing	20-25% of the response times are taking longer than 8 minutes	If more than 35% of the homes/businesses in a new area being served are 3-4 miles from a fire station
Permanent station needed	30% of the response times exceed 10 minutes	If more than 50% of the structures are 5 miles or more from the station



Service Level Objectives

- Fundamental goal of Goodyear's public safety departments is to provide an equivalent level of police, fire, and emergency medical services for all residents of Goodyear.
 - The Goodyear Fire Department has, by policy, established a goal of responding to, and arriving on, a call for service within 4 minutes and 59 seconds 90% of the time for Engine Companies, and 7 minutes and 59 seconds for Truck Companies and Battalion Chiefs.
- Recommendations from Matrix and Public Safety Citizens Advisory Committee (2007)



Adoption of Criteria

How other Cities look at new station criteria:

- The SOC is a rational and systematic way of looking at the basic service provided by an emergency services agency
- Adopted Criteria for Stations
 - A minimum of 500 calls outside of a 4-minute response zone (i.e. – 4 minute polygon)



CPSE's 4 Measures of Performance

1. **Emergency Workload:** Calls for Service
2. **Commit Time:** Dispatch to when unit is available.
3. **Availability:** % of time a unit is available to respond within it's first due.
4. **Reliability:** # of calls, in relationship to the total number of calls in which they performed within the performance benchmarks.

Proposed Trigger

- Consideration by Council on when to open a new station:
 - Total Response time is greater than 8 minutes 30% of the time and
 - If the proposed development is greater than 6 miles away from a current station and
 - If more than 500 calls annually for emergency response times exceed 8 minutes.



Questions

