Meeting Notes Fire Authority Stakeholders Group December 9, 2010

Members Present:

Tony Anderson, SeaTac City Council (Co-Chair) Les Thomas, Board Member Kent FD RFA (Co-Chair) Brian Wiwel, City of SeaTac Acting Fire Chief Jim Schneider, Kent Fire Department Fire Chief Mike Denbo, RFA Board Member Larry Rabel, Kent Fire Captain, Planning Unit Mike Richardson, Kent Fire Captain Mike McCarty, SeaTac Finance Director Mike Moore, IAFF Local 1747 Mark Jones, Kent IAFF Local 1747 President Ken Weatherill, Kent Deputy Chief Scott Galassi, Kent IAFF Local 1747 Vice President Mia Gregerson, City of SeaTac Councilmember Jeff Richardson, SeaTac Fire Battalion Chief Gene Fisher, SeaTac Deputy Mayor John Gallup, SeaTac Local 2919 President Dan Flood, SeaTac Local 2919 Vice President Brian Carson, SeaTac Fire Captain Keven Rojecki, SeaTac Firefighter Art Stipen – SeaTac Business Owner Erin Sitterly, SeaTac Citizen Dave Bush, SeaTac Citizen Ron Wieland, SeaTac Firefighter Robin Loudon, SeaTac Business Owner Richard Jordan, SeaTac Citizen Mary Ann Cromwell, SeaTac Note Recorder

Members Absent:

Margaret Martin, Kent Finance Manager Greg Markley, Kent Battalion Chief

Terry McCartin, Kent Firefighter

Agenda Items

- 1. Introductions were made around the room.
- 2. Chair Tony Anderson requested approval of the notes from Nov. 10, 2010. Committee Approved.
- 3. Chair Tony Anderson announced that all future RFA meetings will be held at Fire Station 46 in SeaTac.
- 4. Chair Tony Anderson announced that the Union Work Group and the Governance Board Work Group would meet one hour before the monthly RFA meetings.
- 5. Chief Schneider gave an overview of the Agenda.
- 6. Battalion Chief Jeff Richardson Presentation of an overview of the Demographics and Employment for the City of SeaTac.
- 7. Captain Larry Rabel & Firefighter Ron Wieland Presentation of Standards of Response Coverage
- 8. Captain Larry Rabel & Firefighter Ron Wieland Presentation of Measured Response Time Elements.
- 9. Chief Wiwel and Firefighter Ron Wieland comparison to other similar communities was moved to the next meeting.
- 10. Chief Schneider presented Revenue Limitations.

Meeting Notes:

- Introductions of all Committee Representatives from the Kent Fire Department and City of SeaTac Fire Department
- 2. Committee approved the notes from November 10, 2010, meeting.
- 3. Presentation on Growth of the City of SeaTac, Overview of Demographics and Employment. See attached document on the following items:
 - Growth in King County and SeaTac
 - · City Snapshot of Area, Population, Employment, and Housing
 - Types of employment
 - Current land use.
- 4. Presentation Standards of Response Coverage. See attached document on the following items:
 - Methodology for creating a Standards of Cover document
 - Existing Personnel, Response Apparatus, Stations and Services Provided.
 - Station Coverage Areas and Dispatching System
 - Community Risk Assessment,
 - Critical Task Analysis
 - Matching Resource to Risk
- Presentation on Measured Response Time Elements. See attached document on the following items:
 - Distribution
 - Reliability
 - Mutual Aid
 - Concentration
 - Flashover Curve
 - Cardiac Arrest Survival
 - Cascade of Events
 - Evaluation of All Factors
 - o Vision 2040
 - Regional Growth Centers
- 6. Revenue Limitations: Presentation on Capital Facilities and Financials See attached document
- 7. Next meeting will be held on January 13, 2011 Presentation by Mike McCarty, SeaTac Finance Director on SeaTac Facilities & Financials.

Questions:

<u>Is the Port of Seattle (POS) Fire Department part of the response statistics presented?</u> Answer "No"

<u>Reasons</u>: POS is not part of Valley Communications, therefore, we do not know the status if they are in or out of service. Dispatch delays and their location on the runway side of the

security significantly delays their response. In addition POS operates under the FAA Standards which requires that they maintain a minimum of resources on site, restricting what the POS can send.

What is the difference between the "Inter-local Agreement vs the RFA? Chief Wiwel stayed after the meeting to explain and answer any questions on the above question.

Meeting ended at 7:30 pm.

Growth of the City of SeaTac

Overview of Demographics and Employment

December 9, 2010

Growth of the City of SeaTac

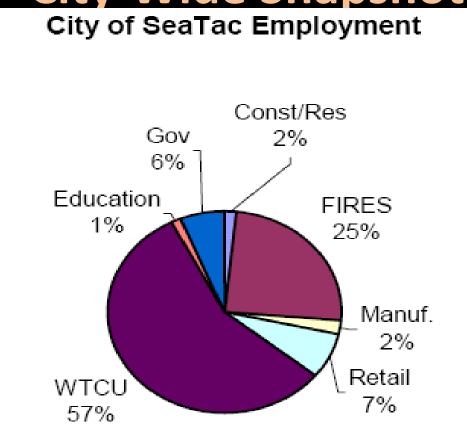
- From 2000 to 2010 population growth in King County was 15%.
 - Unincorporated population actually declined 2005 to 2010, probably due to annexations
- SeaTac's population (2000 2010) rose by 3,050 or 13%, despite losing several hundred housing units to 3rd runway and SR-509 rightof-way acquisition

City-Wide Snapshot

Area (square miles) 10.3
Population (2009) 25,890
Population per square mile 2,507
Employment (2000) 31,899
Employees per square mile 3,097
Housing units (2000): 10,176
Employees per housing unit 3.13

Source: 2002 U.S. Census, Washington State Employment
Security Department,
Puget Sound Regional Council
City of SeaTac Planning Department/OFM

City-Wide Snapshot



The majority of SeaTac employment is Wholesale trade, Transportation, Communication, and Utilities (WTCU) sector. Financial, Insurance, RealEstate, and Services (FIRES) provide 25 percent of the city's employment, while Retail accounts for 7 percent and Government 6 percent.

City-Wide Snapshot

- SeaTac is unusual in that it is more an employment center than a residential center, having 1.2 jobs per City resident.
- The majority of the WCTU sector relates to the presence of SeaTac International Airport.
- The majority of the FIRES sector is Services. Many of these are in the hospitality industries.
- This level of employment has fluctuated year to year but has remained relatively steady from 2000 to the present.

Source: City of SeaTac Planning Department

City-Wide Current Land Use

Residential - Multi family 0.2 (sq mi)3% Residential - Single family * 2.8 (sq mi)34% Commercial retail 0.45 (sq mi)5% Commercial office 0.07 (sq mi)1% Mixed use 0.01 (sq mi)0% Industrial/warehouse 0.11 (sq mi)1% Institutional/civic 0.36 (sq mi)4% Parks/open space 0.14 (sq mi)2% Airport/airport related 2.77 (sq mi)33% Vacant/undeveloped 1.37 (sq mi)17% 5,314 Acres 100%

* Includes 102 acres occupied by mobile homes Source: City of SeaTac Comprehensive Plan

SeaTac Exploratory Committee

Overview
of
Standards of Cover

December 9, 2010

Standards of Cover

Those written policies and procedures that <u>establish</u> the <u>distribution</u> and <u>concentration</u> of fixed and mobile resources of an organization.



CFA STANDARDS OF COVER

5 TH EDITION



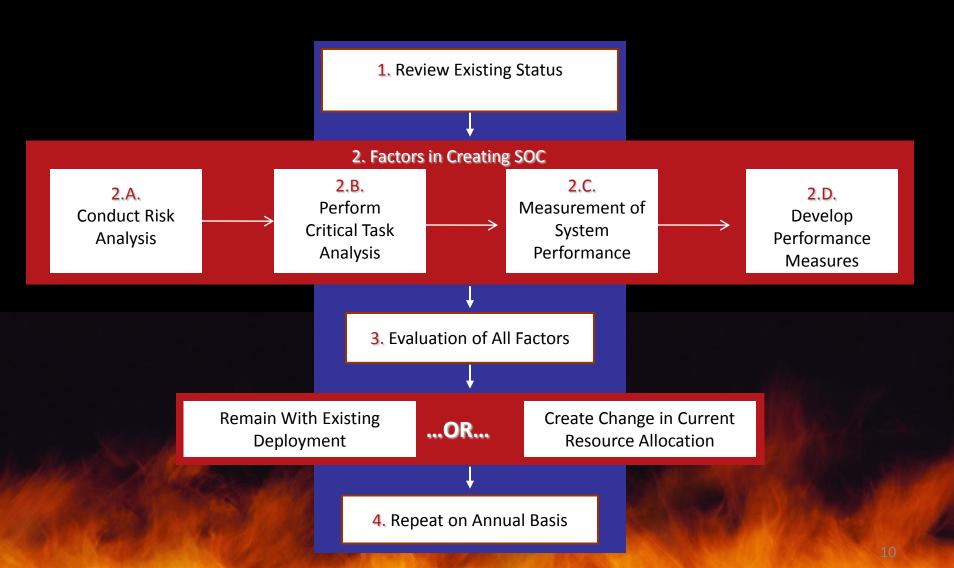




Center a. Public Safety Excellence



Commission ...
Fire Accreditation
International



1. Review Existing Status

Cor

- Where are current stations and resources?
- What services are provided?
- Why were they placed there?
- What community/policy expectations are in existence?

Existing Status: Personnel

- SeaTac Fire Department currently employees
 52 personnel: 48 uniformed, 4 civilian city employees.
- Emergency response personnel work 48 hour shifts, starting at 7:00 am and ending at 7:00am in a two day period. With twelve (12) scheduled Kelly days off per year, the average work week is 50.46 hours.

Existing Status: Response Apparatus

- 3 engines- 2000 gpm/675 gal. tank
- 2 reserve engines 2000 gpm/500 gal. tank
- 1 Rescue Boat
- 1 Rescue/Mobile air unit
- 1 Command unit
- 1 Reserve command unit
- 2 Aid units

Existing Status: Stations & Resources















Existing Status: Stations & Resources



















Existing Status: Stations & Resources





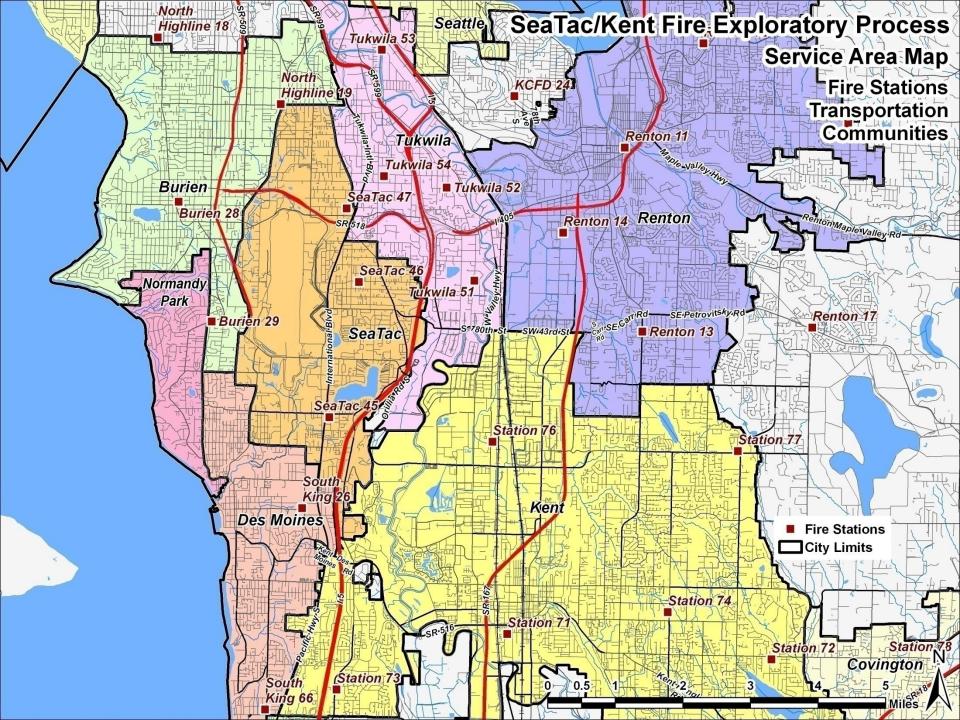






Existing Status: Services Provided

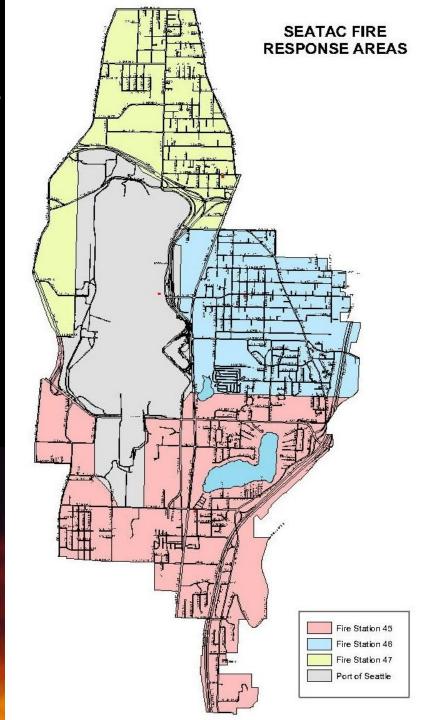
- Firefighting
- Emergency Medical Service
- Technical Rescue
- Confined Space
- Surface Water Rescue
- Fire Inspections
- Emergency Management



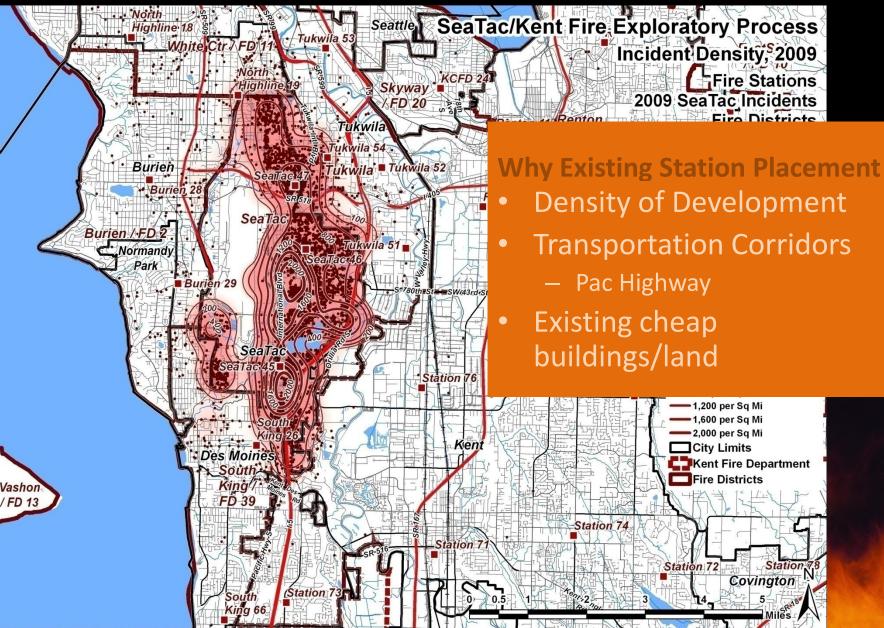
Existing Status: Stations Placement

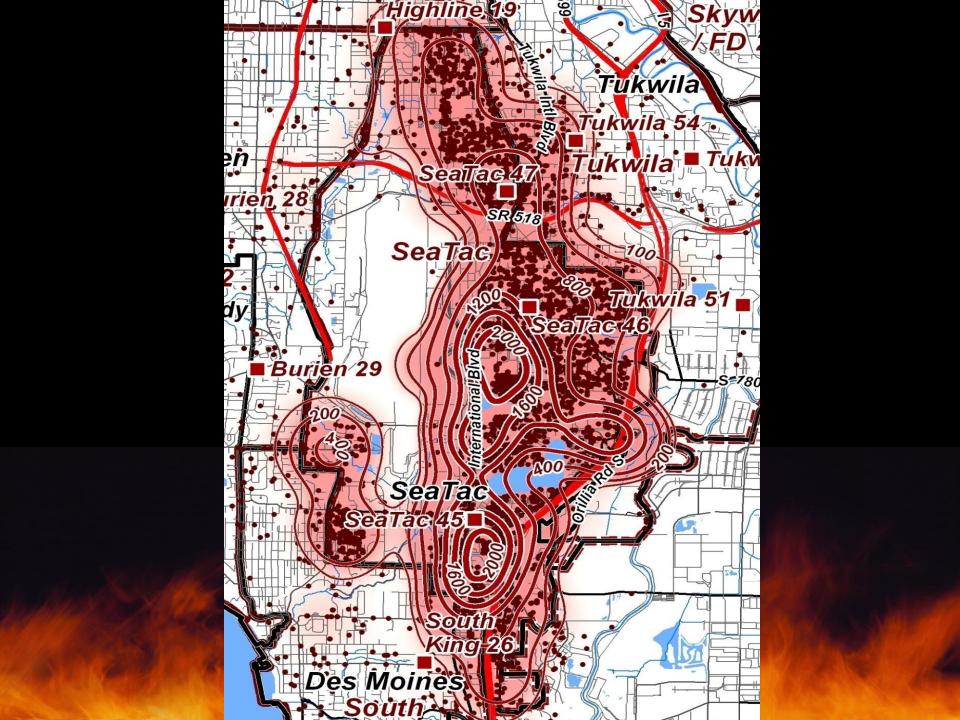
SeaTac Fire Service Area

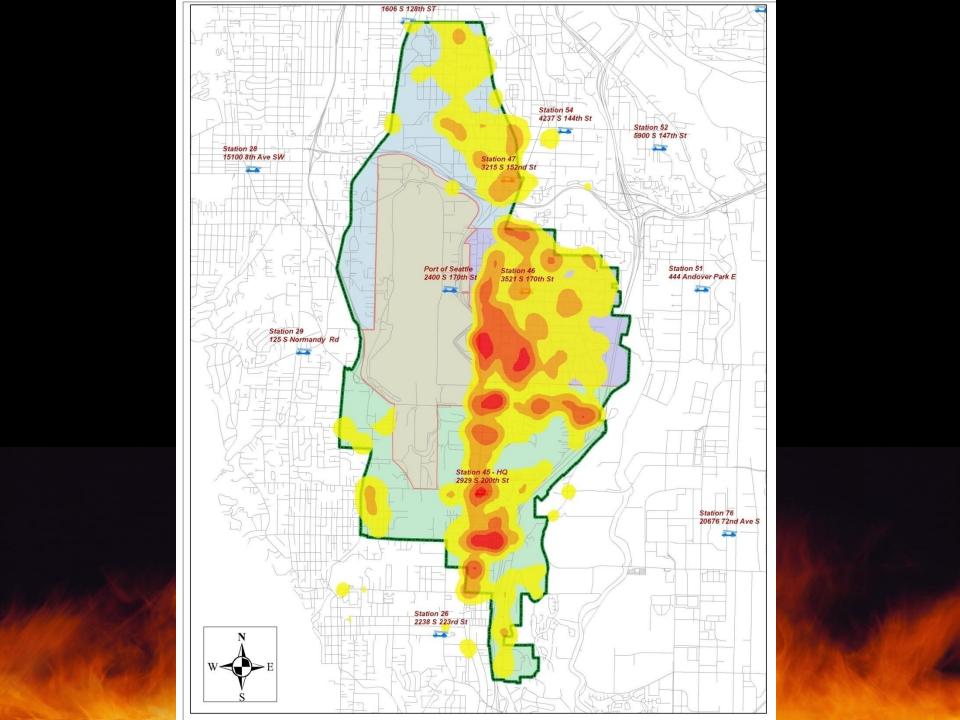
- City of SeaTac = 12.60 sq miles
- SeaTac Airport = 4.28 sq miles
- Vacant land = 1.19 sq miles
- Fire service area = 7.13 sq miles
- Population 2010 = 25,890
- Population Density = 3,576 sq mile
- Jobs = 30,000
- Predicted Growth = 11% (next 6 years)
 - 2000-2010 growth =13% (with demos)
 - 2015 population = 29,050
 - 2020 population = 30,850



Existing Status: Station Placement





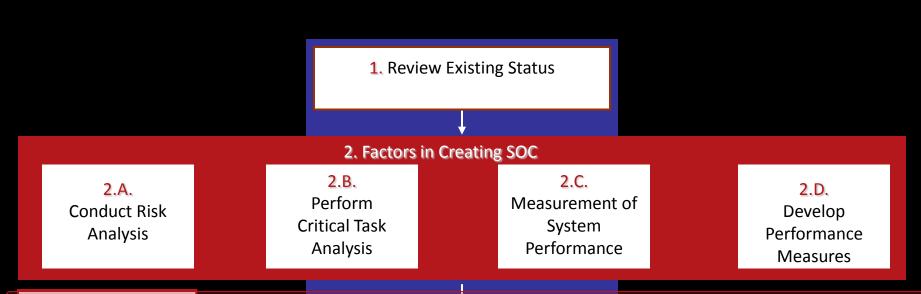


Existing Status: Dispatching

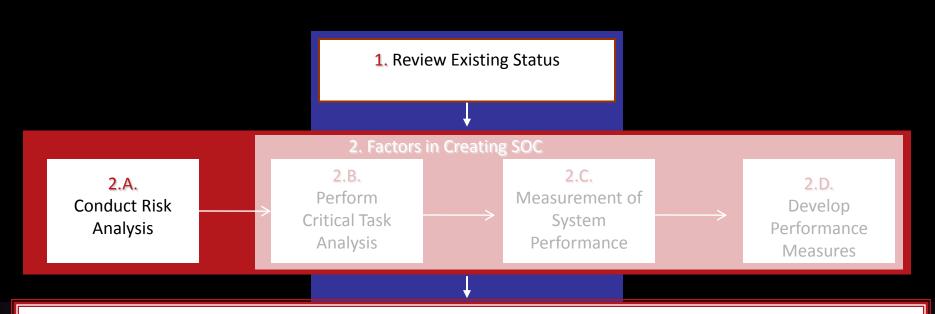
- Emergency call processing and dispatch for Zone 3 and the SeaTac Fire Department is handled by Valley Communications Center (Valley Com), which serves both police and fire.
- Each department establishes the number and type of resource they will send to each call type in their area (called the Fire Resource List - FRL), as well as the unit pick order.

Existing Status: Dispatching cont.

- 64 fire management zones (FMZ or FDZ in Kent) used by the Department for planning.
- Valley Com is in the process of purchasing a new Computer Aided Dispatch (CAD) system.
- In 2012, an effort will begin to move toward parcel based dispatching. This approach will facilitate matching resource needs to specific risks.



- These four factors are the core of the development of SOC.
- Results of these four factors feed into the evaluation of all data and information about the agency.



Define and Inventory occupancy risk hazard:

High Risk

Moderate Risk

Low Risk

Risk Analysis: High Risk

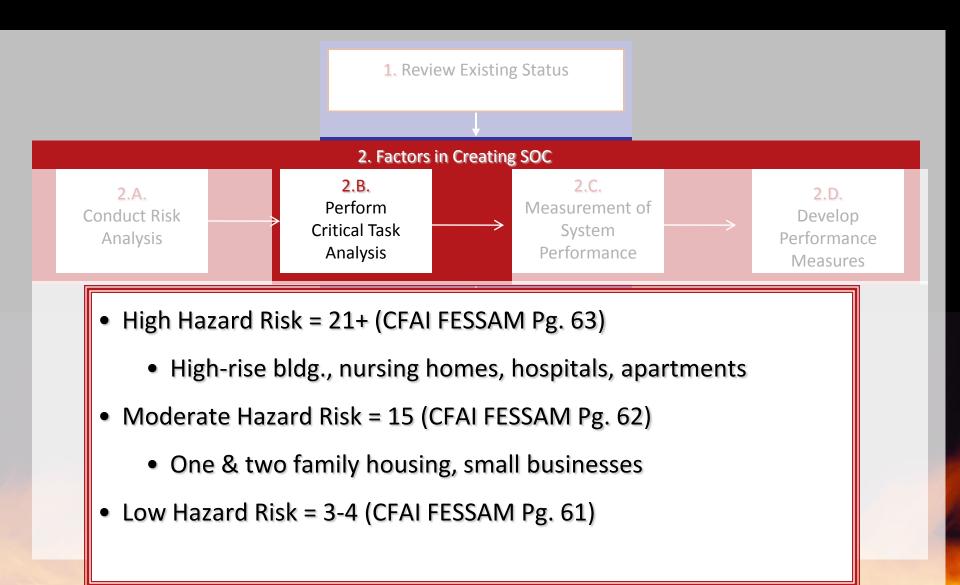


Risk Analysis: Moderate Risk



Risk Analysis: Low Risk





Critical Task Analysis

Representative Tasks –
Moderate Risk Structure Fire (Single Family Dwelling)

Task	Firefighters
Attack line	2
Pump Operator	1
Water Supply	1
Back-up Line	2
Rapid Intervention Crew (RIC	c) 2
Command/Safety	1
Search and Rescue	2
Ventilation	2
Utilities/Exposures	<u>2</u>
	15

CPSE/NFPA – Moderate Risk

SeaTac – Moderate Risk

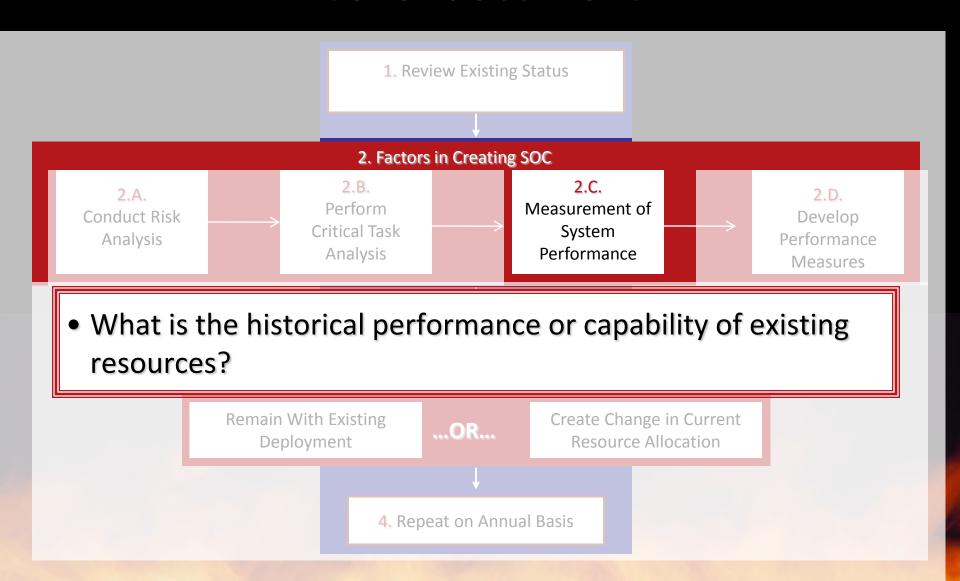
	Task Firefighters	
•	Attack line	2
•	Pump Operator	1
•	Water Supply	1
•	Back-up Line	2
•	RIT	2
•	Command/Safety	1
•	Search and Rescue	2
•	Ventilation	2
•	Utilities/Exposures	<u>2</u>
		15

Ta	sk Firefighter	S
•	Attack line	2
•	Pump Operator	1
•	Water Supply	1
•	Back-up Line	2
•	RIT	2
•	Command/Safety	1
•	Search and Rescue	2
•	Ventilation	2
•	Utilities/Exposures	<u>O</u>
		10/13



Can you Match Resource to Risk?

Methodology for Creating a Standards of Cover document

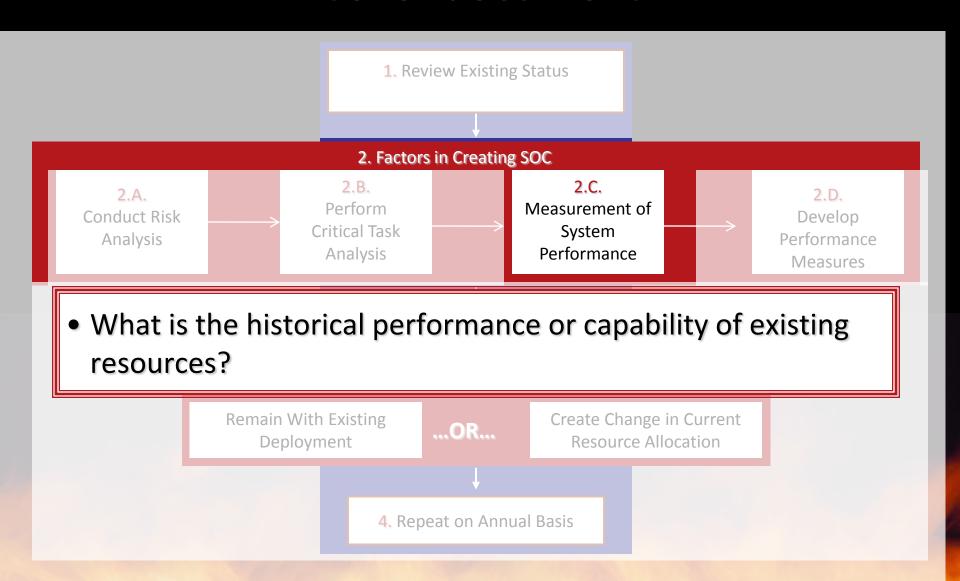


Break

Performance Measures Follow



Methodology for Creating a Standards of Cover document



Critical Term

Distribution

(Speed of Attack)

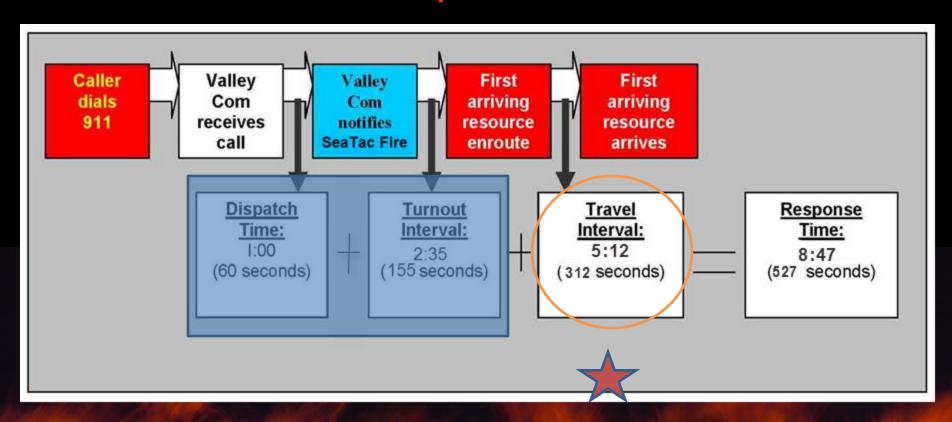
The strategic placement of resources in a way that allows achievement of Level of Service standards throughout neighborhoods and/or districts.

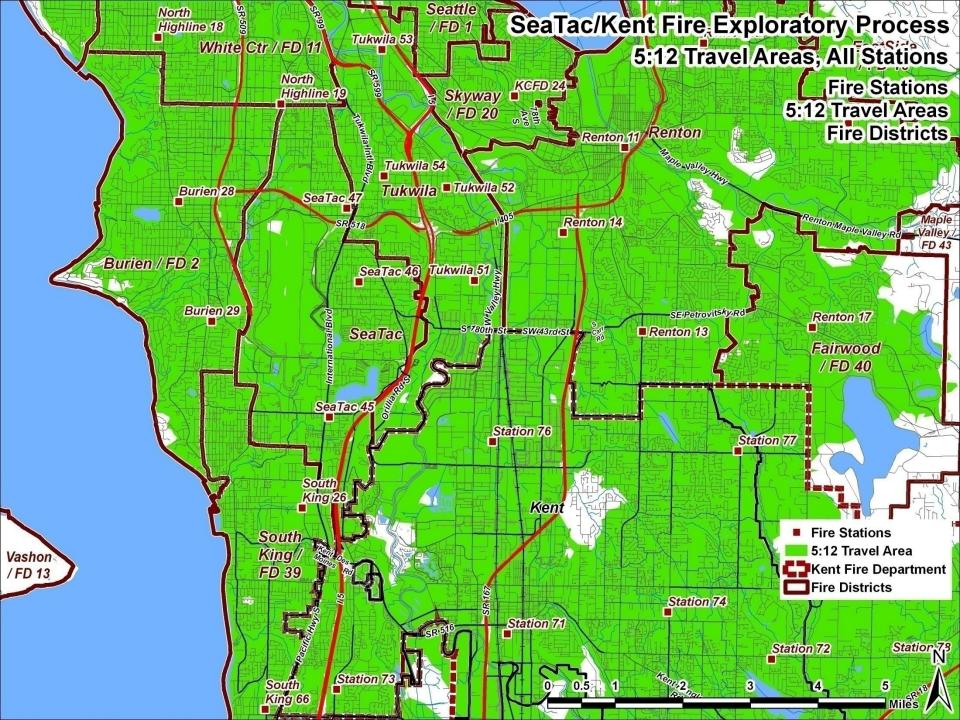
- -ATTACK SPEED
- —"Covering the dirt"
- —Theory vs. Reality

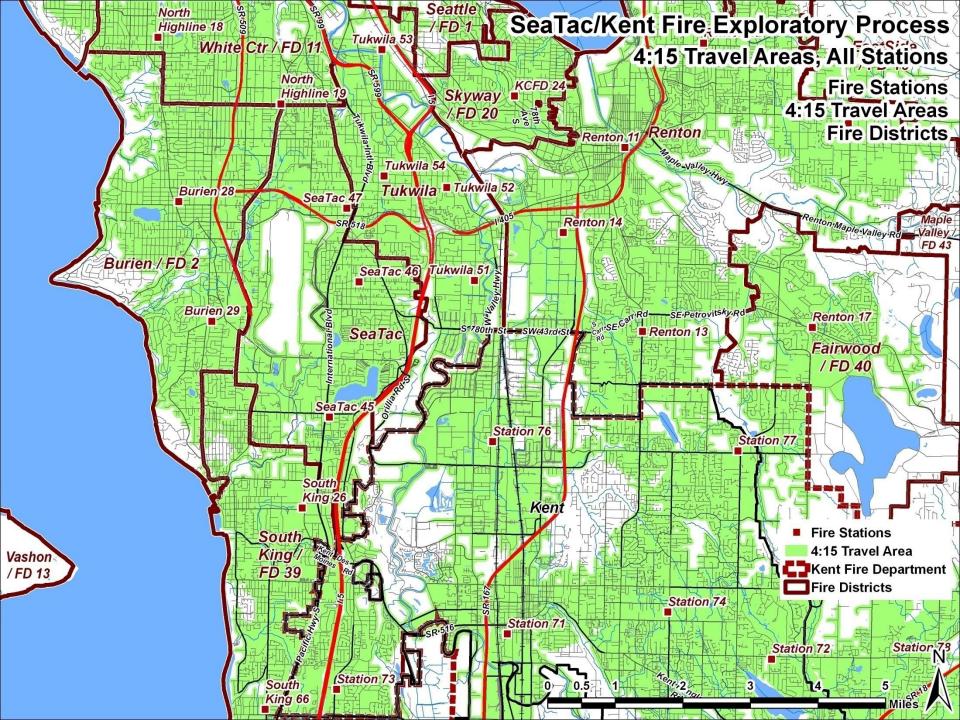


Distribution Study

Distribution = the Speed of attack







- Theory vs. Reality
 - Theory = 100%
- Reality:
 - 87% to 94%

Fire Fire	st In App	aratus	
	4:15	4:30	5:12
2007	75.00%	78.70%	91.60%
2008	86.80%	88.80%	93.80%
2009	77.30%	83.30%	87.30%
3 Yr	79.40%	83.30%	90.80%
	70%	80%	90%
2007	3:50	4:35	5:04
2008	3:19	3:32	4:42
2009	3:39	4:18	6:00
3 Yr	3:34	4:16	5:04

EMS Fir	st In App	paratus	
	4:15	4:30	5:12
2007	80.20%	84.00%	91.60%
2008	78.40%	82.20%	90.20%
2009	78.70%	82.50%	91.10%
3 Yr	79.80%	82.90%	90.90%
	70%	80%	90%
2007	3:43	4:14	5:01
2008	3:49	4:20	5:10
2009	3:45	4:20	5:06
3 Yr	3:46	4:18	5:06

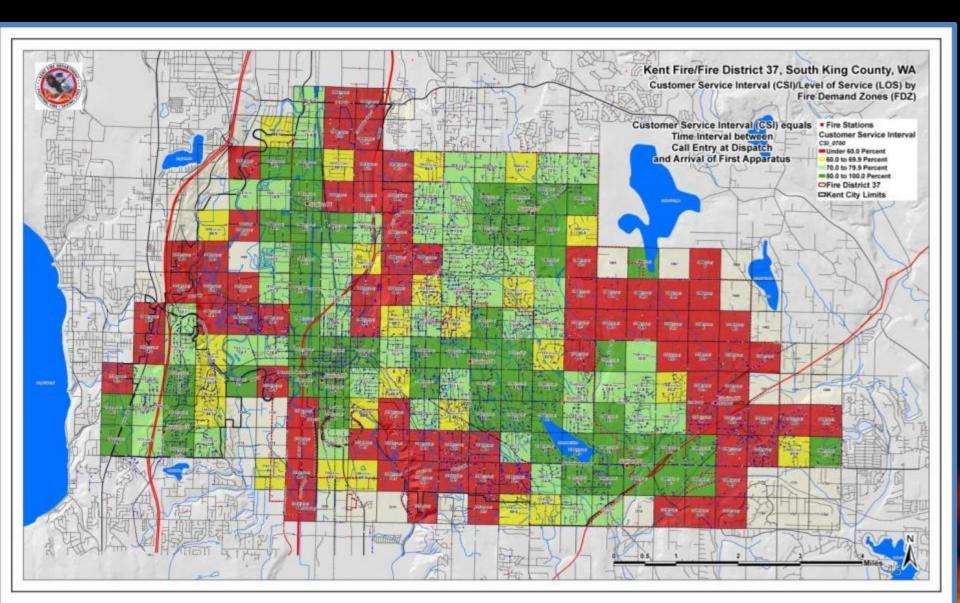
	Area, Sq Mi	Percent of Total
SeaTac FD	10.1910	
4:15 Travel	7.3972	72.59%
4:30 Travel	7.8082	76.62%
5:12 Travel	9.2170	90.44%

Kent Theory vs. Reality

Incidents: In District, Out of Travel Area

Travel Time	Total out of Modeled Areas	Theoretical Performance	Actual NFIRS Performance
4:15	1,215	91%	62%
5:12	322	98%	77%
6:30	66	99%	90%

Kent Distribution: Theory = 98%



Distribution Study

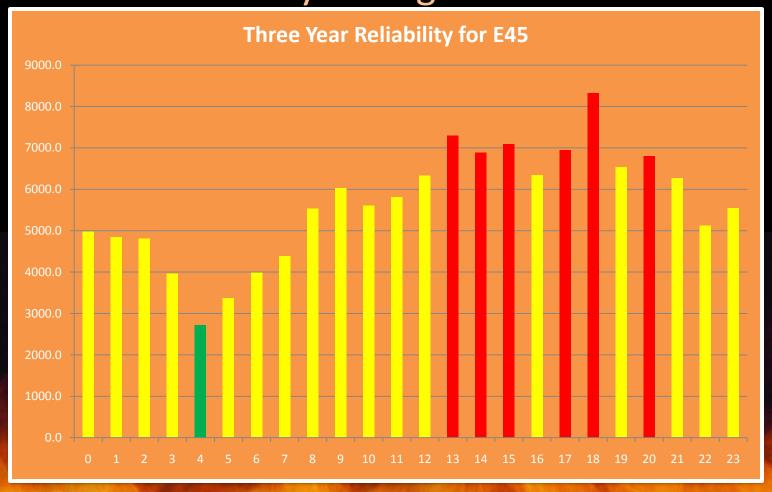
 Insert SeaTac 5:12 table of percentage of streets and dirt covered. From Mike

Critical Term

Reliability

(Resource Exhaustion)

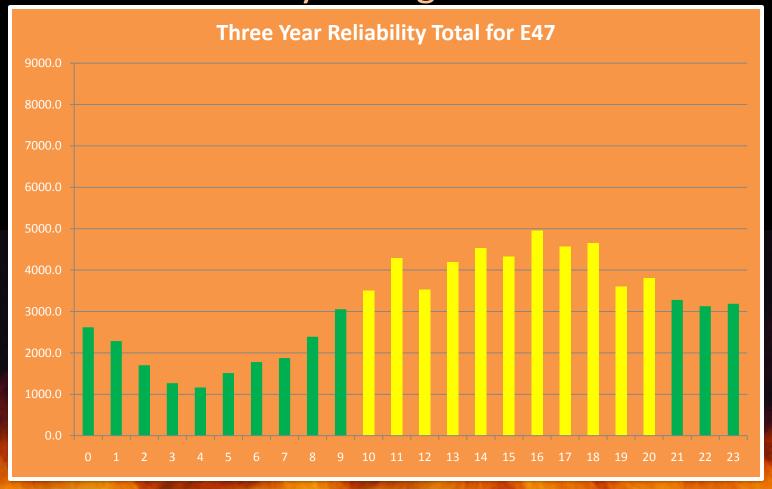
24 Hour Reliability of Engine 45



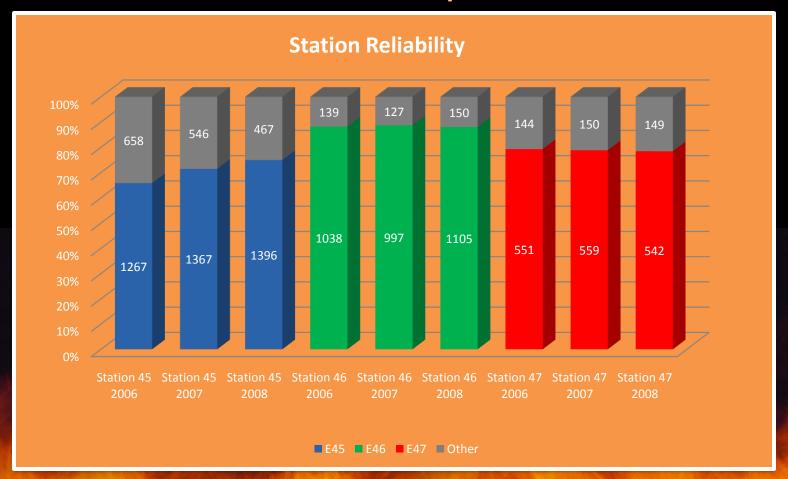
24 Hour Reliability of Engine 46



24 Hour Reliability of Engine 47



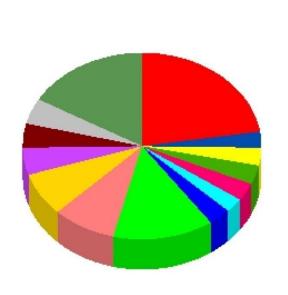
• 24 Hour Station Reliability 45=69%, 46=82%, 47=71%

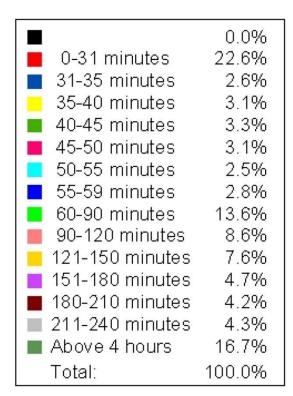


Concurrent Incidents

Date Range From: 1/1/2009 To 12/31/2009

Average Call Time: 0:31:54





Time Between Calls	Total
	0
0-31 minutes	926
31-35 minutes	107
35-40 minutes	129
40-45 minutes	136
45-50 minutes	129
50-55 minutes	104
55-59 minutes	116
60-90 minutes	558
90-120 minutes	354
121-150 minutes	310
151-180 minutes	194
180-210 minutes	174
211-240 minutes	177
Above 4 hours	685
Total	4,099

Measurement of System: Mutual Aid

Department	Given	Received	
17D02 - KCFD#2	30	23	
17D11 - N. Highline FD#11	96	38	
17D20 - KCFD#20 (Skyway)	1		
17D39 - S. King Fire & Rescue	92	37	Received 32%
17M01 - Auburn Fire	2		
17M08 - Kent Fire	14	12	
17M14 - Renton Fire	5	2	
17M15 - Seattle Fire	1		
17M19 - Tukwila Fire	250	85	416
17S01 - Port of Seattle Fire	53	63	SE.
Total	544	260	1000

Critical Term

Concentration

(Force of Attack, matching resources to risk)

Measurement of System: <u>Concentration Study</u>

The number of resources needed in order to match a given area/community risk..

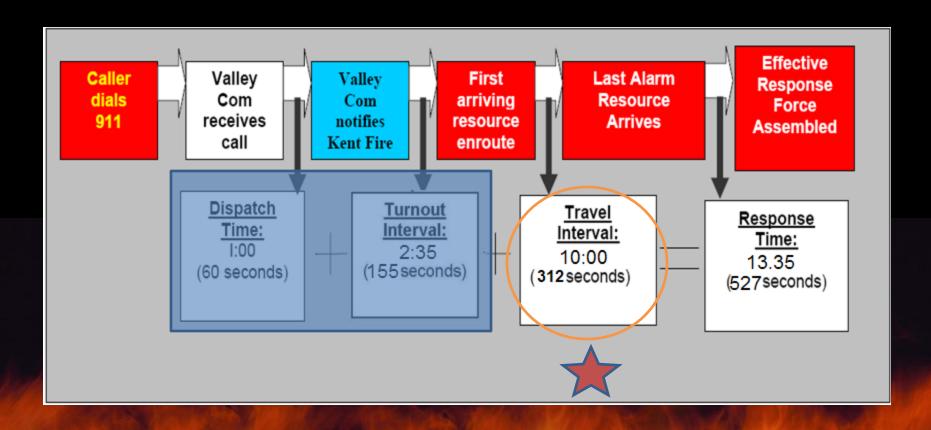
-ATTACK FORCE

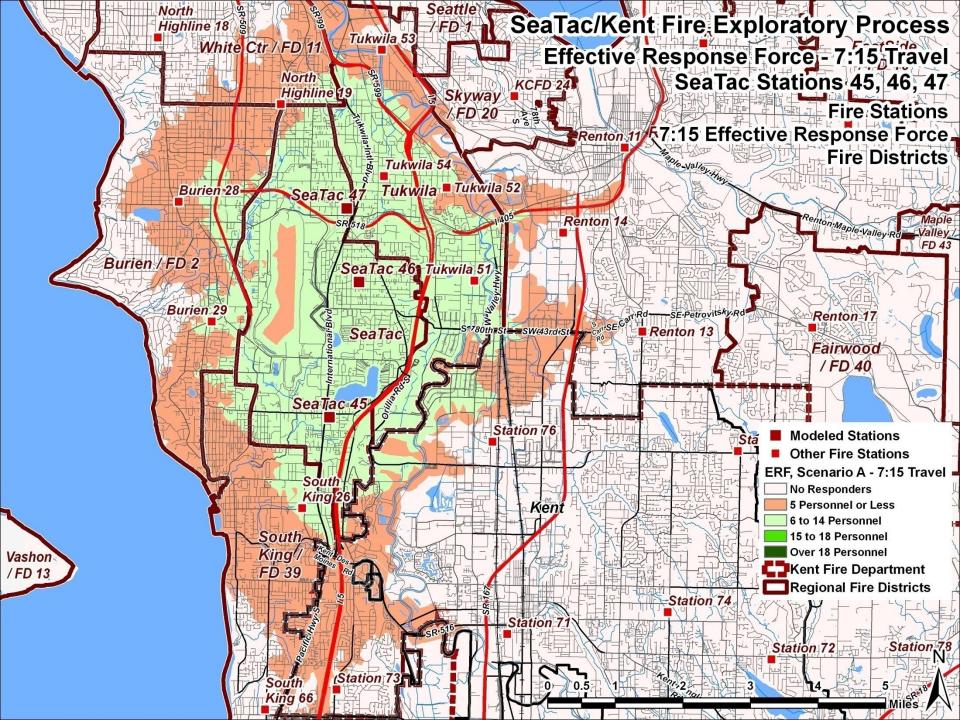
-ERF/FFA

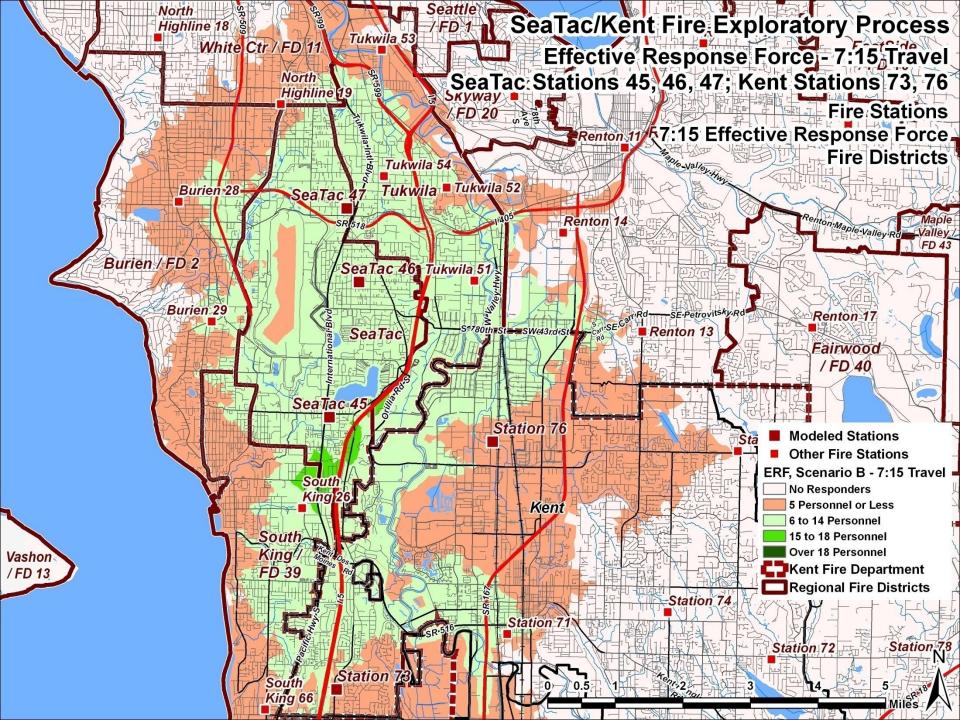


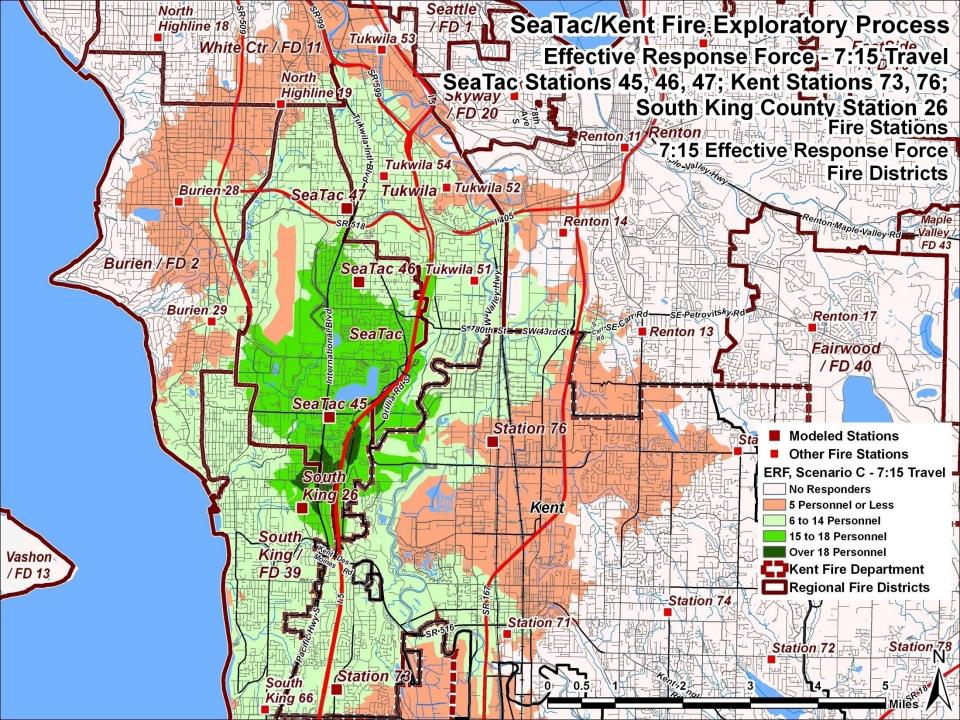
Measurement of System: <u>Concentration Study</u>

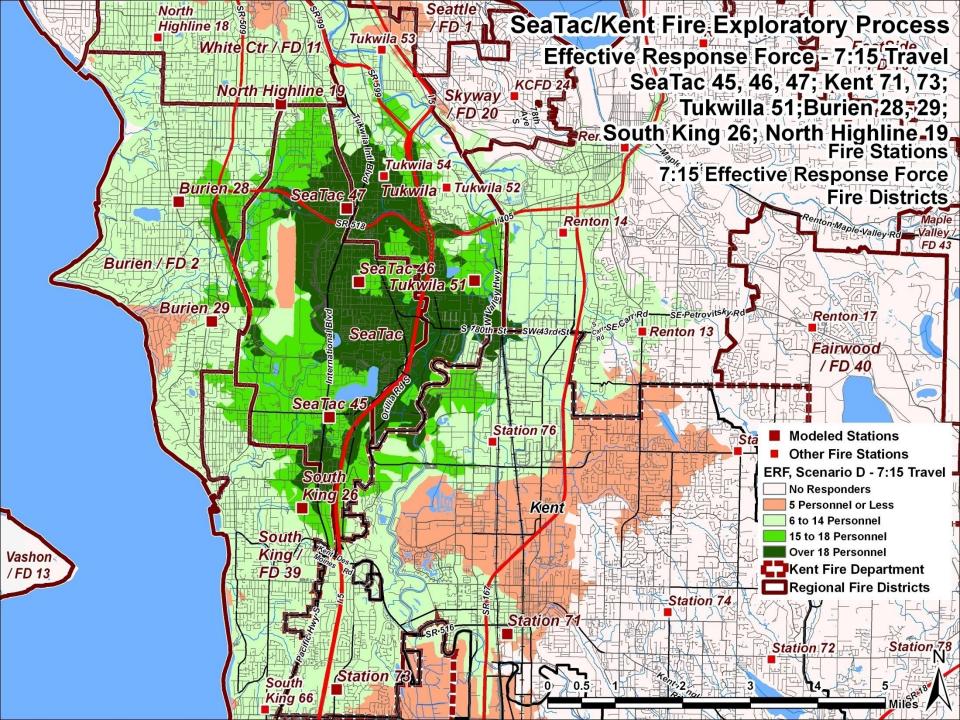
Concentration = the Force of the Attack

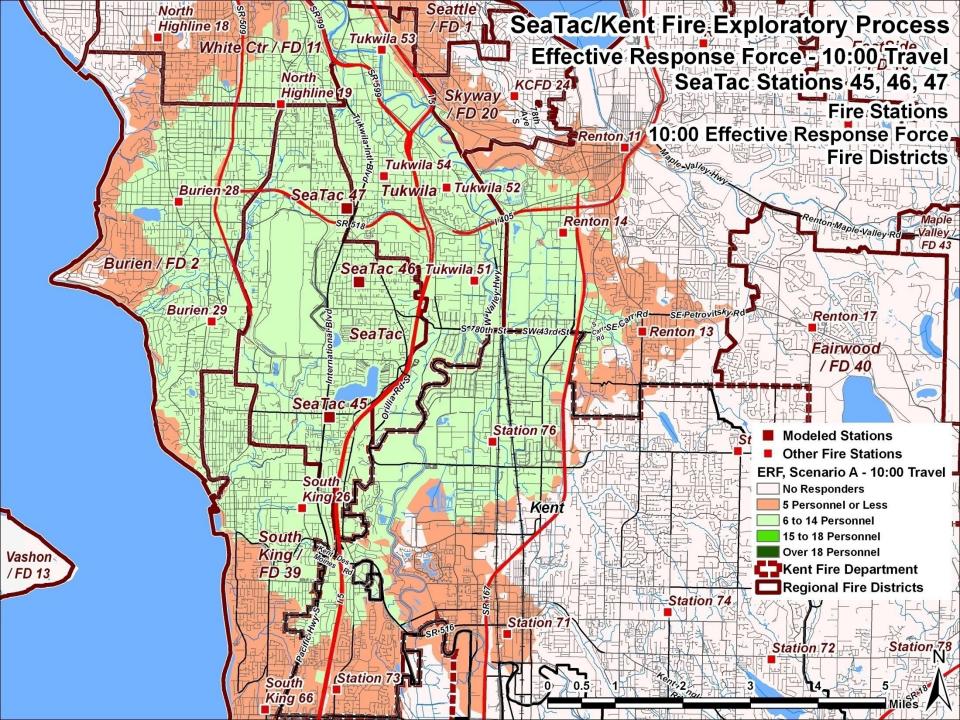


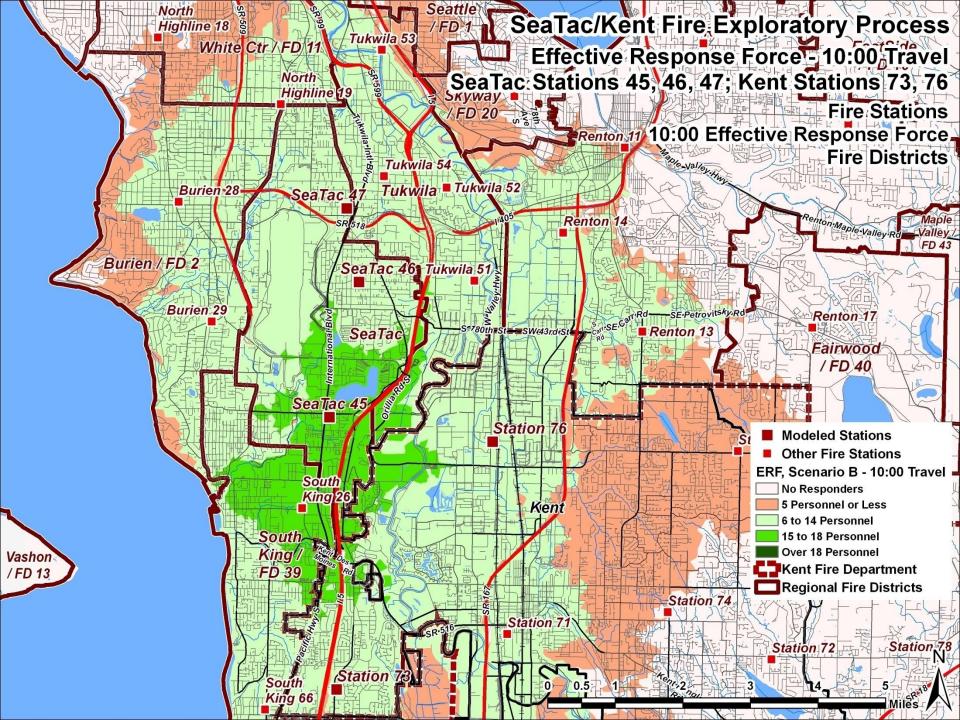


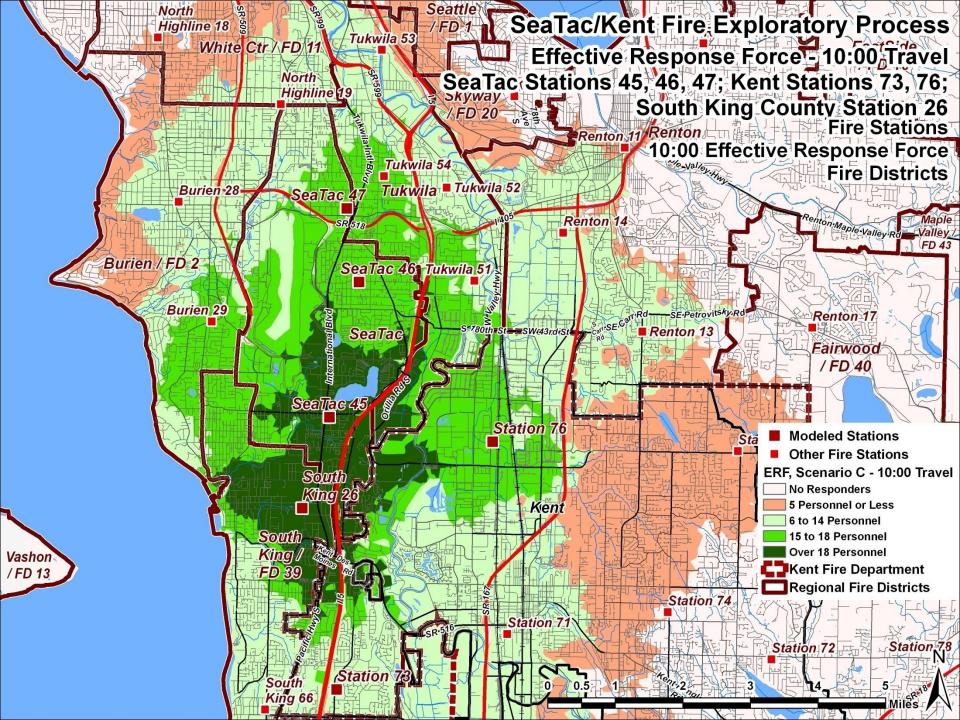


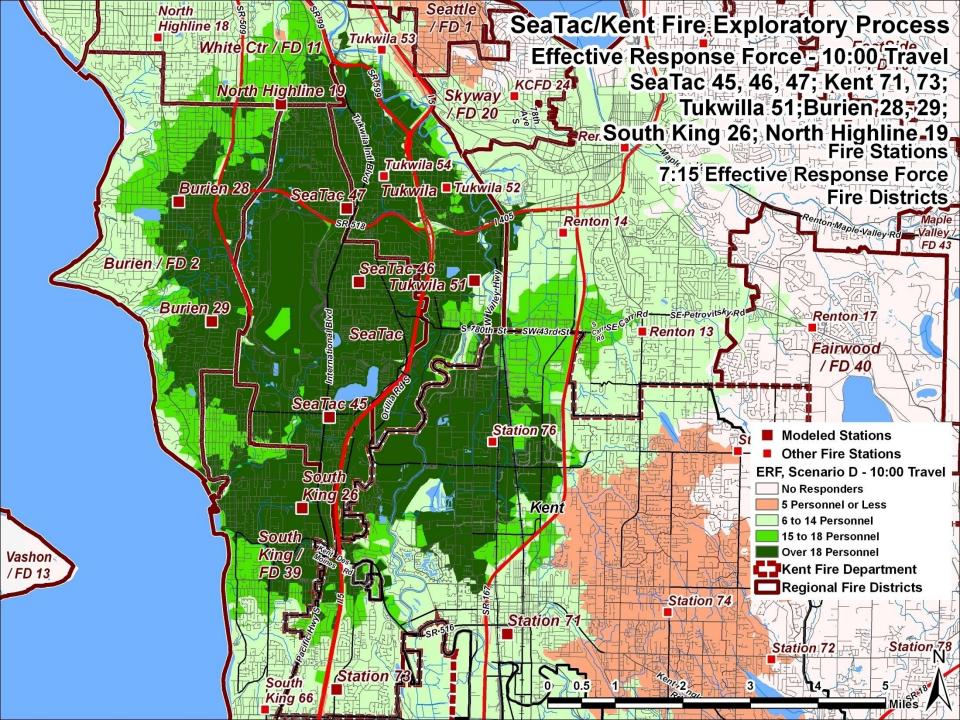




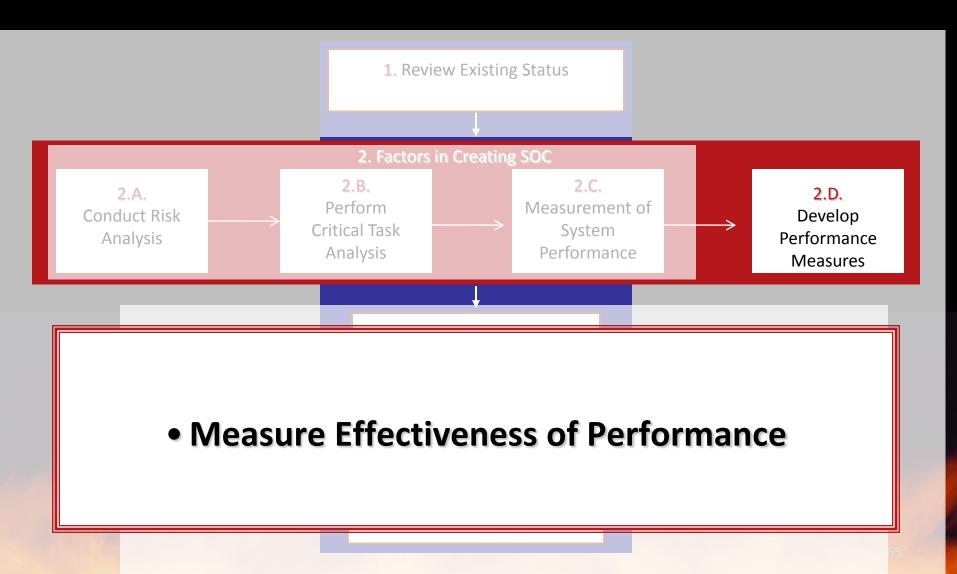








Methodology for Creating a Standards of Cover document



Develop Performance Measures

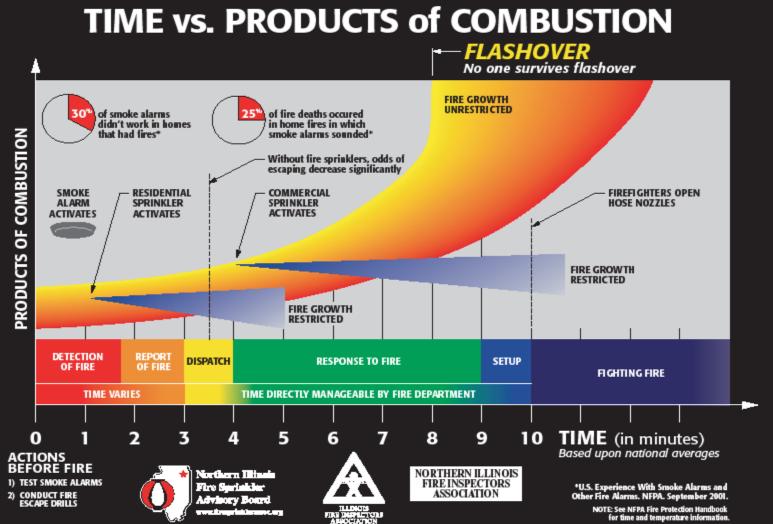
- National Fire Protection Association (NFPA)
 - NFPA 1710
 - 4 minute drive time 90% of time: Distribution
 - 6 minute drive time 90% of time: Concentration
- Revised Code of Washington 35A.92.030/52.33.030
 - Drive time meaningful to Flashover & Brain Death 90% of the time.
- Commission on Fire Accreditation International
 - 4 minute drive time 90% of time: Distribution
 - 8 minute drive time 90% of time: Concentration

Critical Term

Flashover



Effectiveness of Performance: Flashover



Effectiveness of Performance: Flashover

- Rapid transition of fire
- No survival in fire compartment
 - Deadly to occupants
 - Deadly to firefighters
- Major threat to areas outside of the room of origin



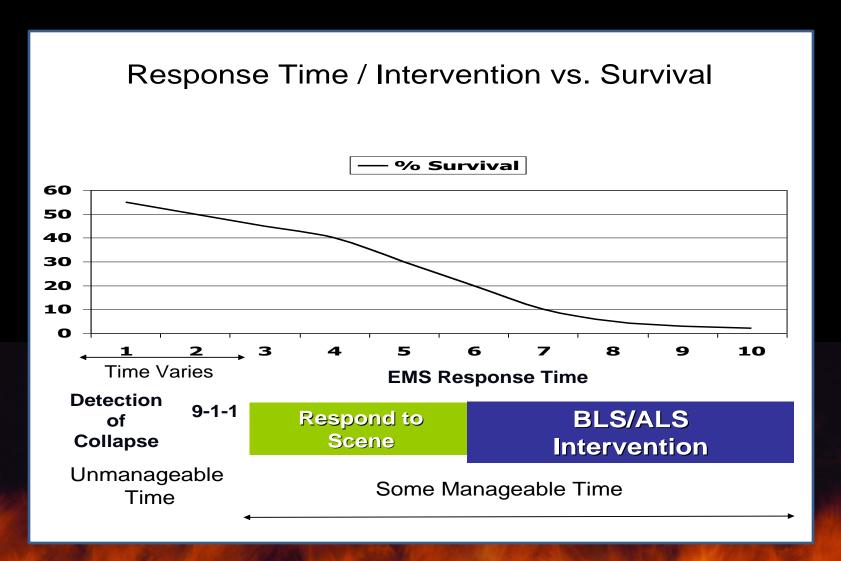
Critical Term

Intervention

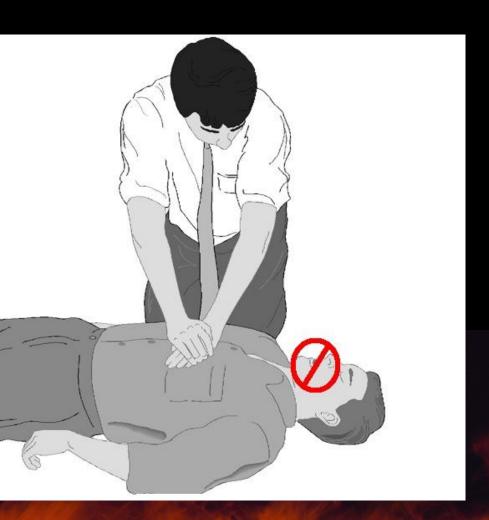
Vs.

Survival

Effectiveness of Performance



Effectiveness of Performance: Survival



Utstein Model

4 - 6 minutes

Sudden Cardiac Arrest

Kent Fire Department

- 43% 35/81 survival rate over the past five years.
 - 2005 13% discharge (45%)
 - 2006 54% discharge (41%)
 - 2007 41% discharge (45%)
 - 2008 33% discharge (49%)
 - 2009 XX% discharge (46%)

SeaTac Fire Department

- 50% 7/14 survival rate over the past five years.
 - 2005 33% discharge,
 - 2006 25% discharge.
 - 2007 50% discharge
 - 2008 100% discharge
 - 2009 100% discharge

• KC = 293/646 45%

Effectiveness of Performance: Flashover

 Sudden Cardiac Arrest Survival occurred most often when the first arriving unit arrived in less than seven minutes.

 No patient in Sudden Cardiac Arrest has survived when the response was longer than seven minutes and thirty-four seconds.

Detection of Collapse

Unmanageable Time

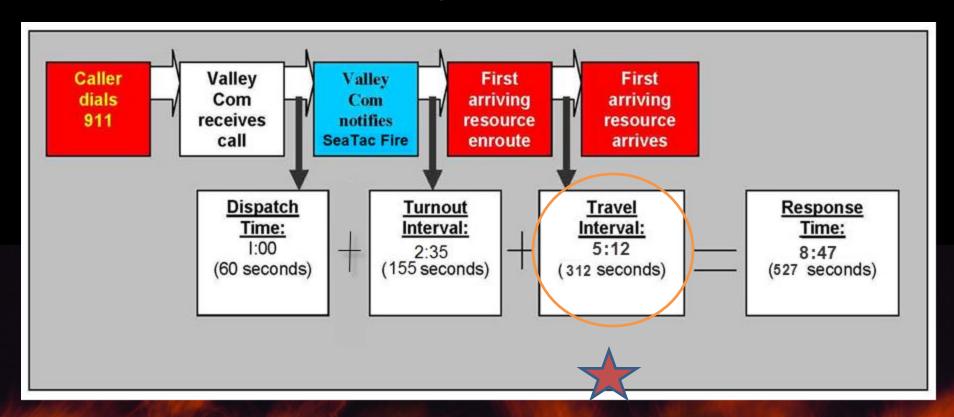
EMS Response Time

BLS/ALS
Intervention

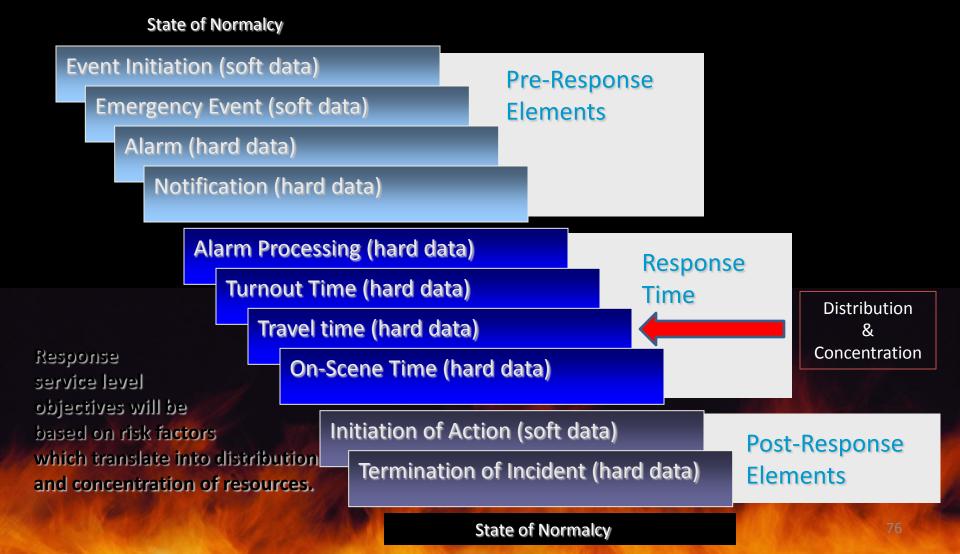
Some Manageable Time

Will Distribution Support Community

Distribution = the Speed of attack



Cascade of Events

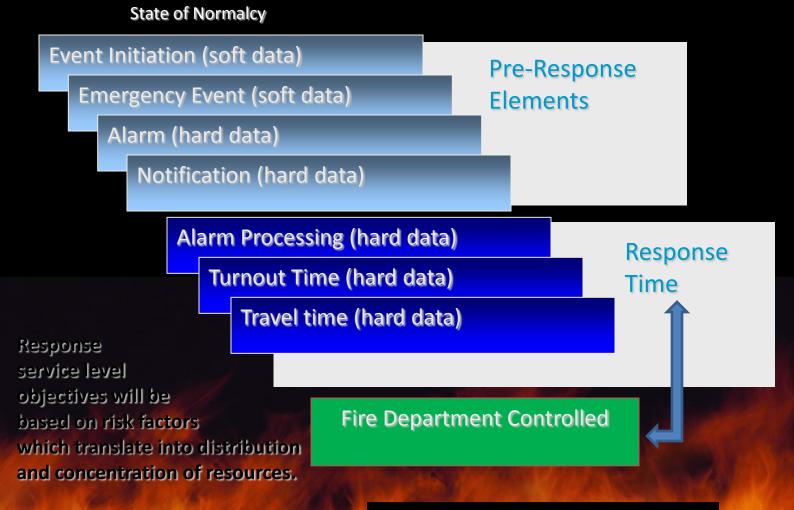


Develop Performance Measures

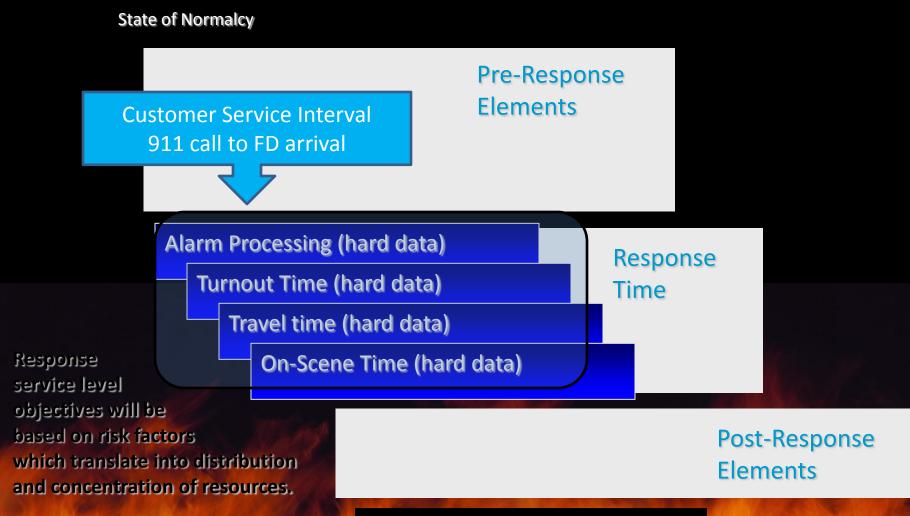
Table 1:	Differences	in Response	Time Methods
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	Average response time	Responses within 6 minutes or less (%)
А	7:09	39.8%
В	5:49	59.2%
С	4:26	79.9%

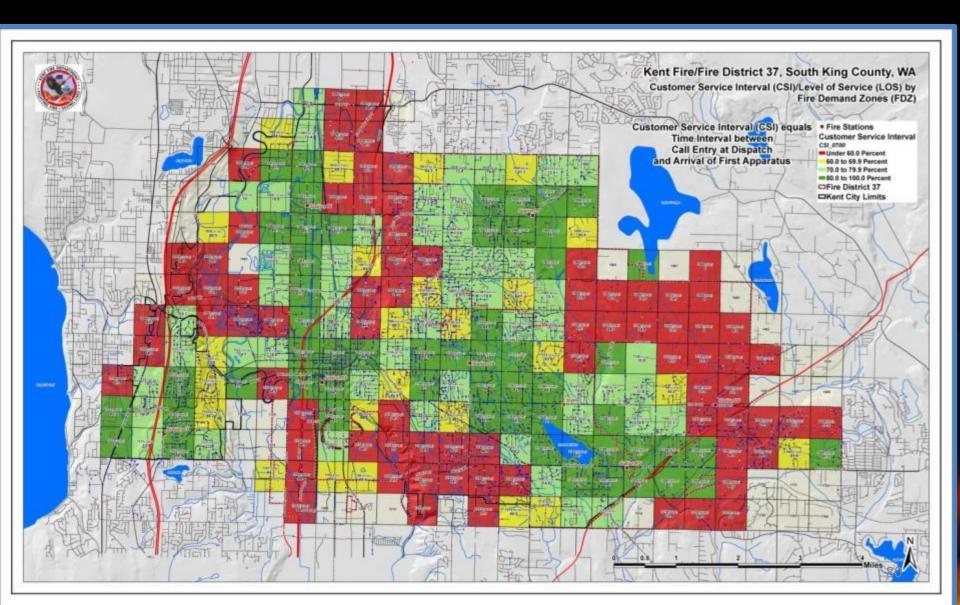
Cascade of Events



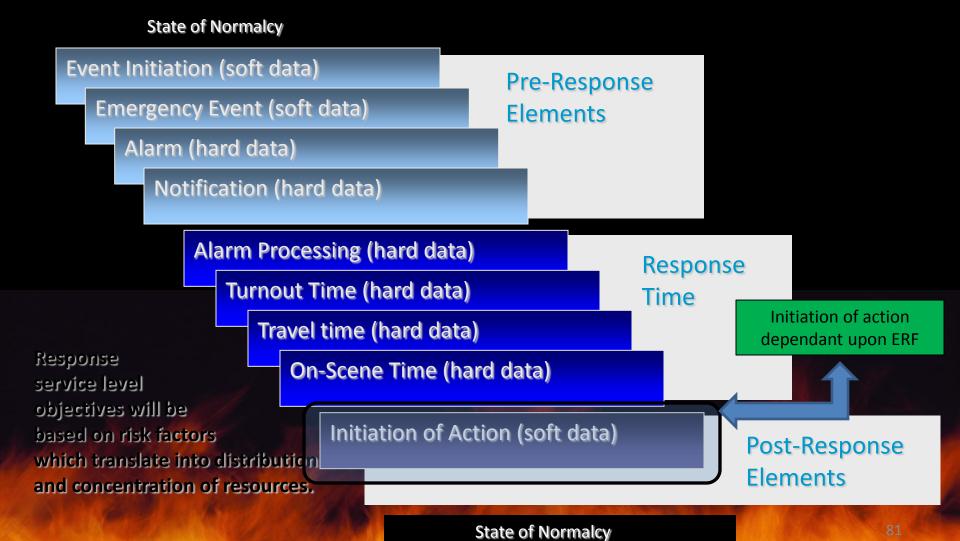
Cascade of Events



Kent Distribution Performance to LOS



Cascade of Events



Methodology for Creating a Standards of Cover document



- Risk Factors
- Response Time
- Resource Exhaustion
- Mutual Aid Dependency

3. Evaluation of All Factors

Remain With Existing Deployment

...OR...

Create Change in Current Resource Allocation

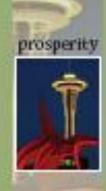
4. Repeat on Annual Basis

Evaluate Performance: Risk Factors

- Projected Future Growth
 - SeaTac Growth Projections, Based on Vision 2020
 - Comp Plan updates required
- Puget Sound Regional Council
 - VISION 2040
 - King County 's County Wide Planning Policies
 - SeaTac Comprehensive Plan

VISION 2040







The Growth Management, Environmental, Economic, and Transportation Strategy for the Central Puget Sound Region

Amended by the PSRC General Assembly April 24, 2008

Amended by the PSRC Executive Board May 28, 2009

Pugel Sound Regional Council
FERC Electroler 2009

VISION 2040 Proclamation

- WHEREAS, VISION 2040 provides a <u>common framework</u> for the region's Metropolitan Transportation Plan and Regional Economic Strategy, as well as <u>countywide</u> <u>planning policies and local comprehensive plans;</u>
- NOW, THEREFORE, BE IT RESOLVED, that the Regional Council General Assembly adopts VISION 2040 as the growth management, environmental, economic, and transportation vision for the central Puget Sound region, meeting state Growth Management Act requirements, and in so doing reaffirms its commitment to an integrated regional approach to growth management, the environment, the economy, and transportation.

REGIONAL GROWTH CENTERS (RGC)

- Regional Growth Centers
 - Designated areas of high-intensity residential and employment development.
 - Typically located in the historic downtowns or other major activity areas of the region's five Metropolitan Cities and in Core Cities.
 - Serve as a primary framework for regional transportation and economic development planning

RGC CHARACTERISTICS

- Locations with current or planned concentrations of the region's most significant business, governmental, and cultural activities.
- Support high-density urban neighborhoods with a mix of land uses including housing, jobs, shopping, and recreation.
- Are often primary cultural, civic, and government hubs with large regional markets.

RGC TRANSPORTATION FEATURES

- Served by regional high-capacity transit, rail, major highways, and other transportation services.
- Major investments for transportation and other services and facilities are targeted for these locations.
- Should have a complete network of walkways and bicycle links, with easy access to transit.

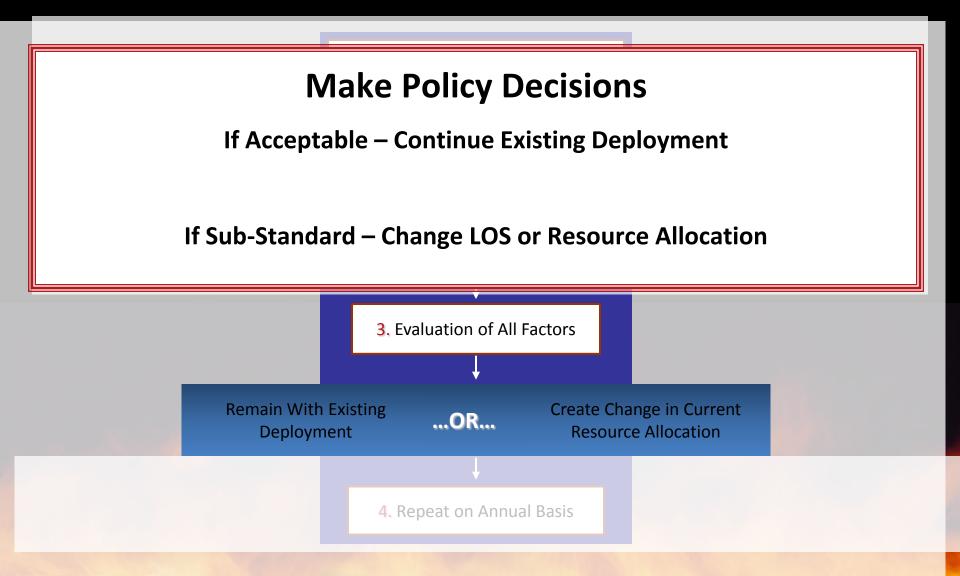
KING COUNTY RGC LOCATIONS

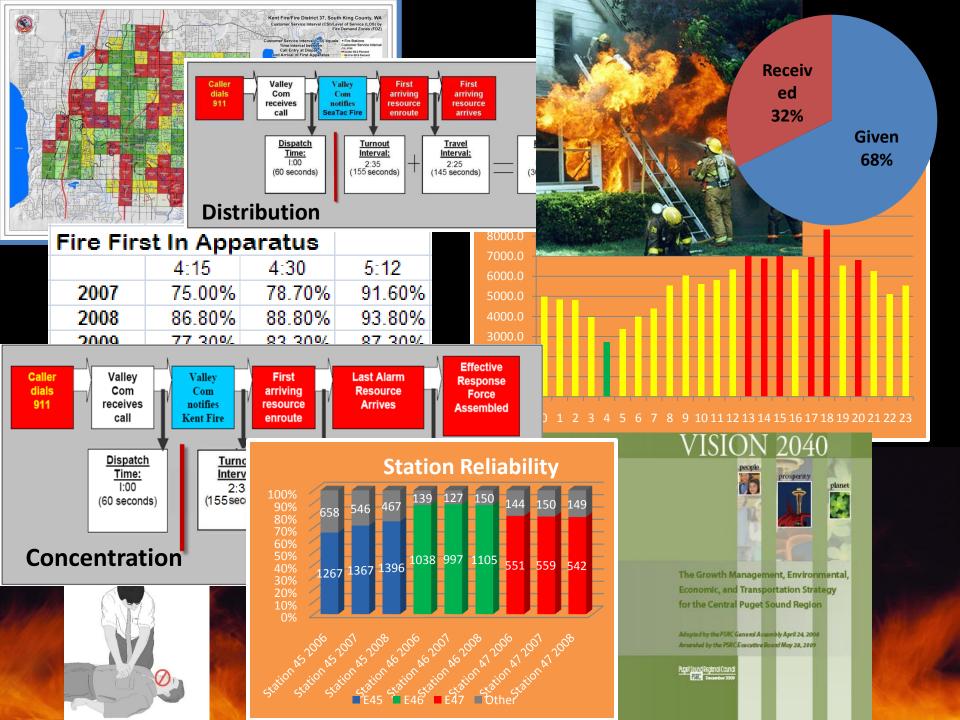
- Metropolitan Cities:
 - 294,000 new people
 - 311,000 new jobs
- Seattle
- Bellevue

- Core Cities:
 - 233,000 new people
 - 262,000 new jobs
- Auburn
- Burien
- Federal Way
- Kent
- Renton
- SeaTac
- Tukwila

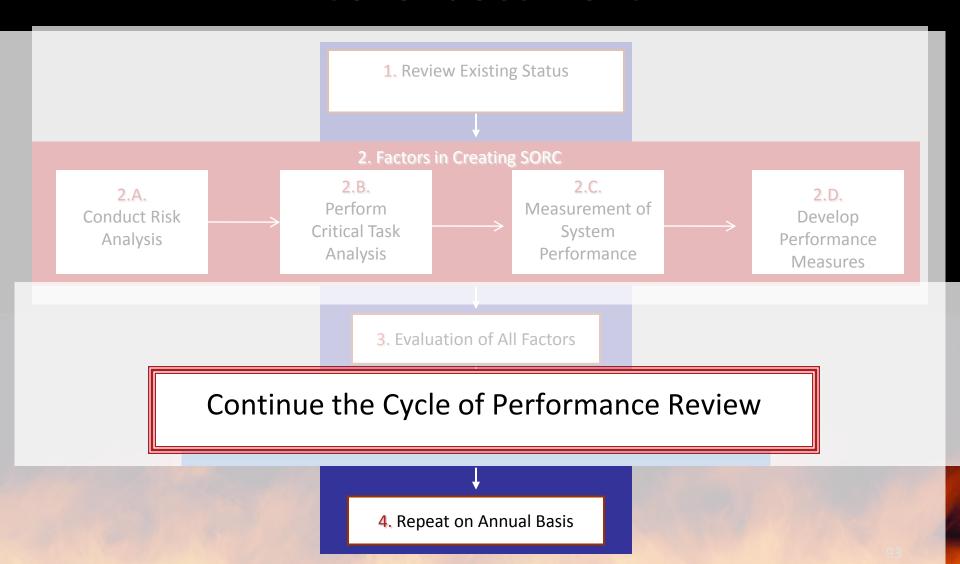


Methodology for Creating a Standards of Cover document





Methodology for Creating a Standards of Cover document







5TH EDITION







Center a Public Safety Excellence



Commission ...
Fire Accreditation
International



Essential Terms of SOC

- Distribution = Placement of resources to cover jurisdiction on time. <u>Speed of Attack</u>
- Concentration = Placement of enough resources to stop escalation of event and prevent regular need for mutual aid. <u>Force of Attack</u>
- **Reliability** = Placement of adequate resources to prevent resource exhaustion and reduce dependency on mutual aid.
- LOS = Desired level of service established by a community.
 Performance is measured as percentage of time LOS objective is being met.

Break



Revenue Limitations

Jim Schneider



2002 – Factors Affecting the City of Kent and King County Fire District 37

- Reduction of the motor vehicle excise tax
- Initiative 747 limitation of 1% per year increase in property taxes

2002 – Factors Beginning to Affect

- City of Kent's ability to
 - Fund services
 - Fund facilities (capital)
 - Created the need to reprioritize and reduce services

2007-2008 – Factors Affecting the City of Kent

- Sustaining current emergency service delivery needs
- City of Kent (\$2.18)
 - Fire Department \$1.63
 - Police Department \$1.62

\$3.25

- 2010 \$2.34

2009-2010

- It became very clear to:
 - The City of Kent
 - King County Fire District 37

■ That We Needed To . . .

In order to sustain current services

- First We needed a diversified funding model
 - Tax Levy
 - Fire Benefit Charge (FBC)

Second – Create efficiencies by combining resources



2002-2006

Diversify resources to enhance services

2007-2010

 Diversify resources to sustain current services

Next Month

Mike McCarty, City of SeaTac, Finance Director

Will review the City of SeaTac's financial situation

And, the ability of the City of SeaTac to sustain services

