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Connecticut PSAP Consolidation Feasibility Study

Presentation of Findings – January 18, 2012

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 - Wireless 9-1-1 Deployment
 - NG9-1-1 Projects

Scope of Work

The project scope of work included the following components:

- Assessing the feasibility of PSAP consolidation within the State of Connecticut
- Identify the level of interest statewide in consolidation
- Identify potential consolidation partners
- Estimate the ideal number of PSAPs required to efficiently handle 9-1-1 traffic statewide
- Identify incentives for encouraging consolidation
- Review the existing funding formula and make recommendations to improve the equity of funding distribution

Deliverables

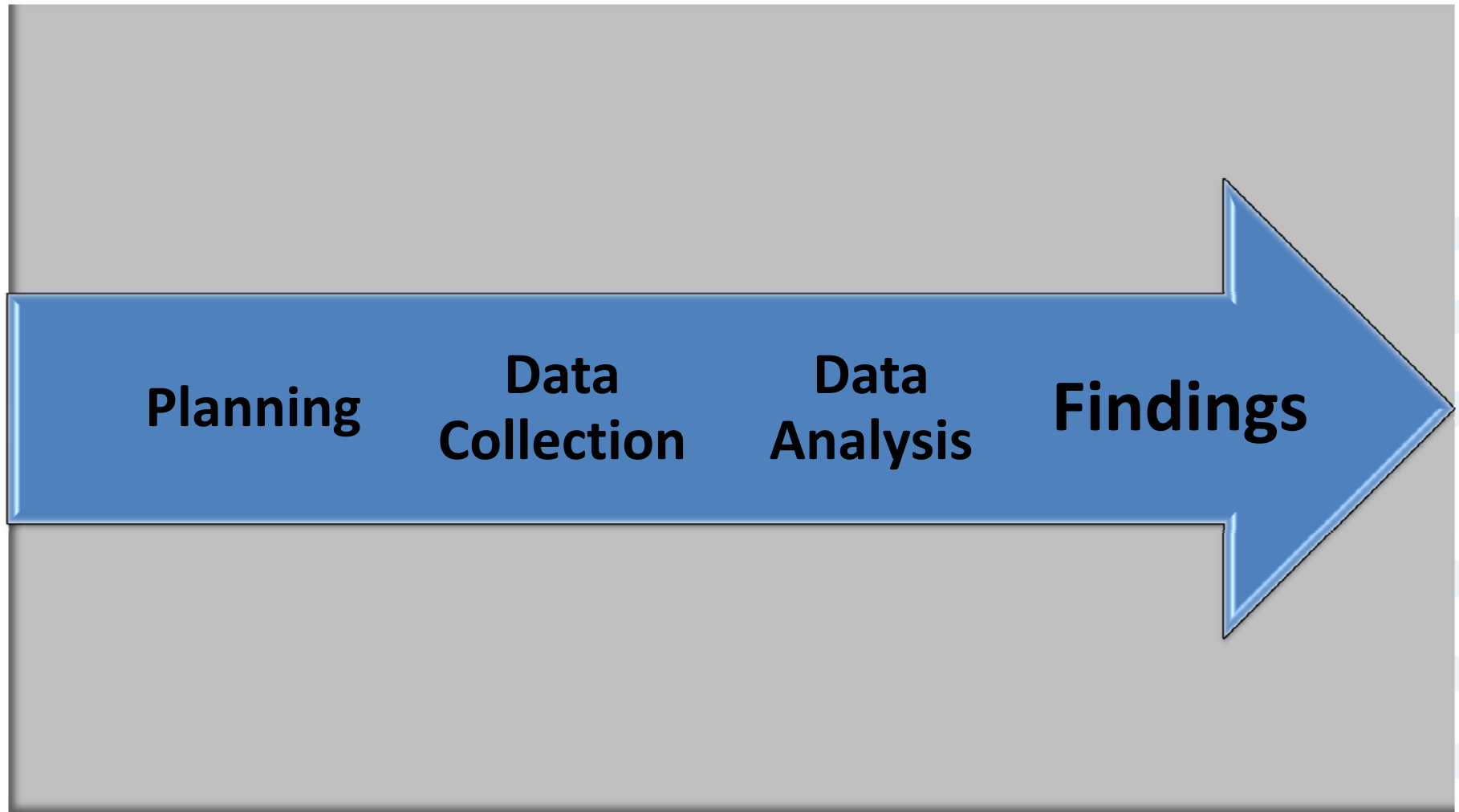
Report

- High-level assessment and consolidation options
- Actionable recommendations

Guidebook

- Review of consolidation process
- Provide local municipalities with a planning guide for consolidation

Project Methodology



Data Collection

Methodology:

1. A 16-page data collection survey distributed to the PSAPs
2. The survey collected data in many categories including staffing, call processing, agencies served, radio, CAD and other systems, views on consolidation and other data.
3. On-site visits to each of the PSAPs to discuss opinions on consolidation and ensure all PSAPs had an opportunity to contribute opinions and ideas. The opinions reflect those of the PSAP staff, not necessarily of the municipal decision makers.
4. Review of all data related to the current funding model.

Data Collection Results

Participation:

- Excellent with 100% of the PSAPs willing to complete a survey and/or meet with Kimball.

Survey Results:

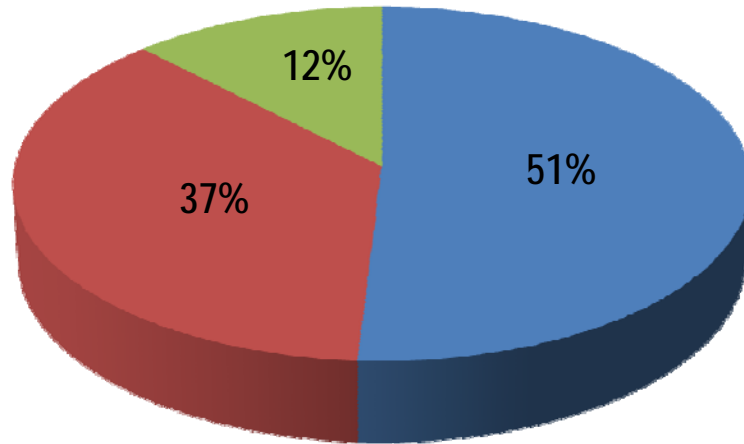
- 99 of 101 surveys distributed were completed and returned. Survey data for the remaining 2 was collected during site visits.
- Operational and technical aspects of the surveys were completed thoroughly
- Budgetary information was the area most often left incomplete

Current Connecticut PSAP Configuration

- Connecticut has 106 Primary PSAPs serving 3,574,097 citizens.
 - One PSAP per 33,717 citizens
 - 7 Regional PSAPs
 - 8 CT State Police
 - 9 Multi-town PSAPs
 - 82 Stand-alone PSAPs
 - Maryland has 24 PSAPs serving 5,773,552 citizens.
 - One PSAP per 240,564 citizens
 - Pennsylvania has 69 PSAPs serving 12,702,379 citizens.
 - One PSAP per 184,092 citizens

Current PSAP 9-1-1 Call Volume

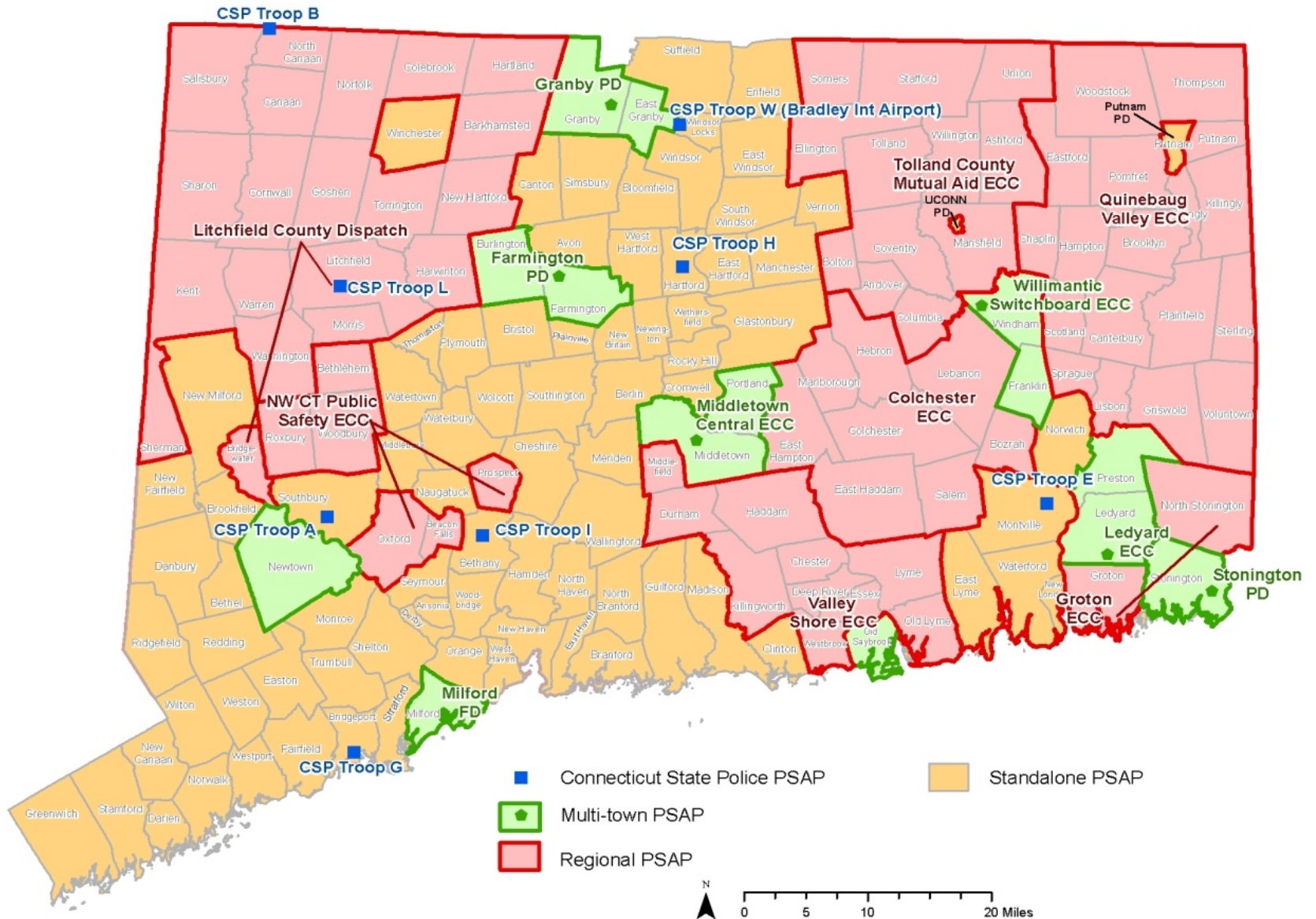
Average 9-1-1 Calls Per Hour



- Less Than 1 Call Per Hour
- 1 - 4 Calls Per Hour
- Greater Than 4 Calls Per Hour

- 88% of PSAPs receive an *average of less than four 9-1-1 calls per hour.*
- 51% of PSAPs receive an *average of less than one 9-1-1 call per hour.*
- This level of 9-1-1 call volume strongly suggests that PSAP consolidation may be beneficial from a service level perspective and in potential cost savings at the local level.

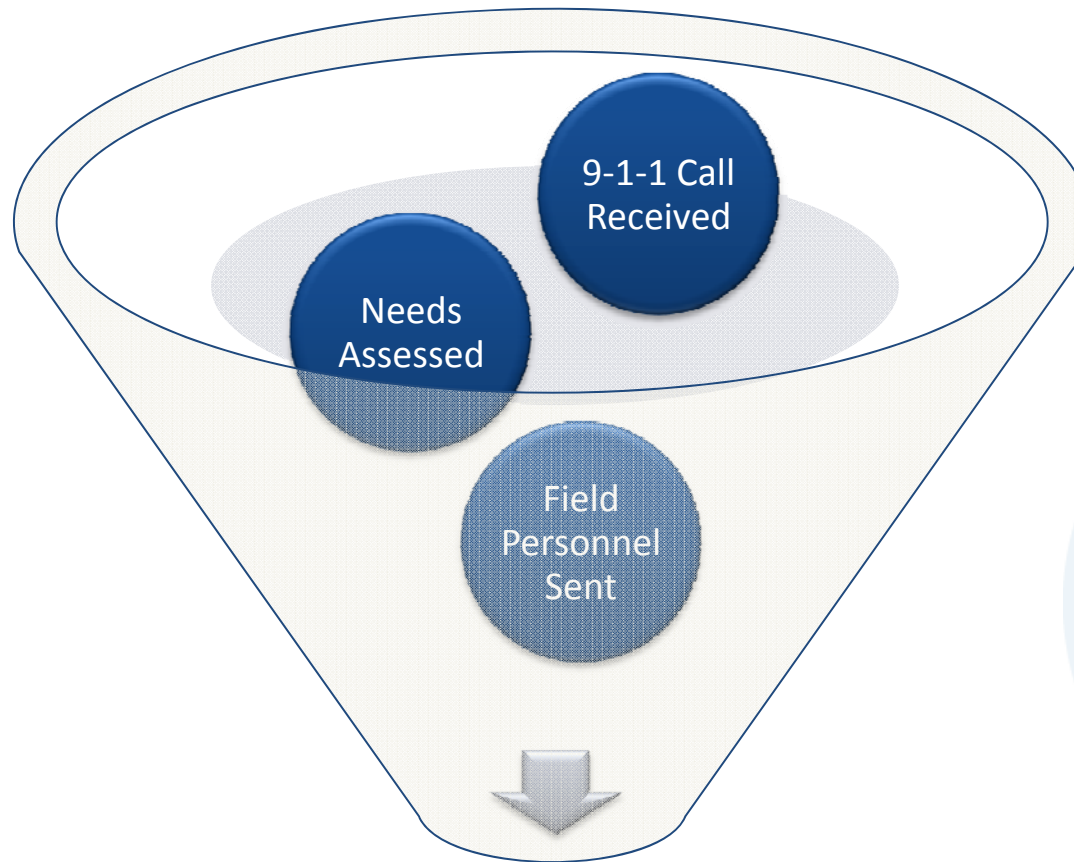
Current Connecticut PSAPs



Traditional Level of Service

- In addition to handling 9-1-1 calls, the smaller PSAPs perform a wide variety of non-emergency communications related functions. These duties can divert attention away from incoming calls and radio traffic. Examples of these functions (ancillary duties) include:
 - Answering administrative calls for multiple departments
 - Tracking permits / licenses
 - Monitoring holding cells
 - Managing walk-up window traffic
- Smaller PSAPs can become overwhelmed when a major incident occurs. This is not a reflection of ability, but of the actual number of people on duty to respond.
- On-the-job training and experience handling critical incidents varies, which creates inconsistent service across the state.
- PSAPs that do not provide dispatch service for police, fire and EMS must transfer callers which delays dispatch of field personnel.

Consolidated Level of Service



Focused Emergency Communications

PSAP Consolidation Advantages

- More staff on duty to manage weather or major incidents
- Regional approach allows for better management of internal and field resources
- May be able to provide service for all emergency responder disciplines (police, fire & EMS), which reduces 9-1-1 call transfers
- May result in cost savings at the local level
- Consistent training
- Career path and higher employee retention

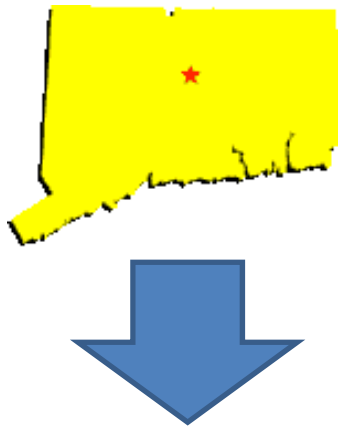
PSAP Consolidation Disadvantages

- Loss of direct control of telecommunicators
- Loss of in-depth knowledge of the community
- Re-assignment of ancillary duties to other staff or the need to hire additional staff to perform administrative functions
- Potential for a “dark station” after hours
- Perceived reduction in service level provided to the community

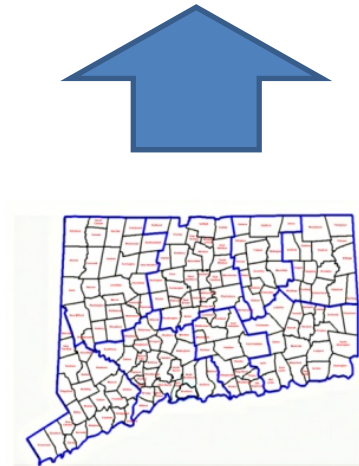
PSAP Consolidation – Report Overview

- Two PSAP consolidation approaches are emphasized - “Top-Down” and “Bottom-Up”

State Mandated



Grass Roots



- Top-Down - Typically legislatively mandated by a state government and is often overseen by a state authorized commission
- Bottom-Up - Occurs at the grass roots level where individual municipalities form partnerships, regionalize and potentially expand

Top-Down Model

- Analysis of data collected resulted in the creation of two consolidation models.
 - Optimum Model: focused on creating only the number of PSAPs necessary and balancing the 9-1-1 call volume across those PSAPs
 - DEMHS Model: focused on creating PSAPs around the 5 Department of Emergency Management and Homeland Security Regions
- Optimum Model creates three PSAPs, with the CT State Police assumed to be consolidating on their own
 - Southwest
 - Northwest
 - East

Optimum Model Pros and Cons

Pros

- Would create statewide consistent service
- Maximizes potential long-term cost savings
- Balances 9-1-1 call volume to ensure live back-up
- Minimizes transfer of 9-1-1 callers and keeps call taking and dispatch together

Cons

- Would likely need significant radio infrastructure upgrades
- Perfect world solution that would be difficult to achieve
- Large initial capital costs including facility, systems, and infrastructure costs

DEMHS Model

- Focused around 5 DEMHS Regions

Pros

- Existing relationships
- Existing Operational Response Procedures
- Possible enhanced federal funding opportunities

Cons

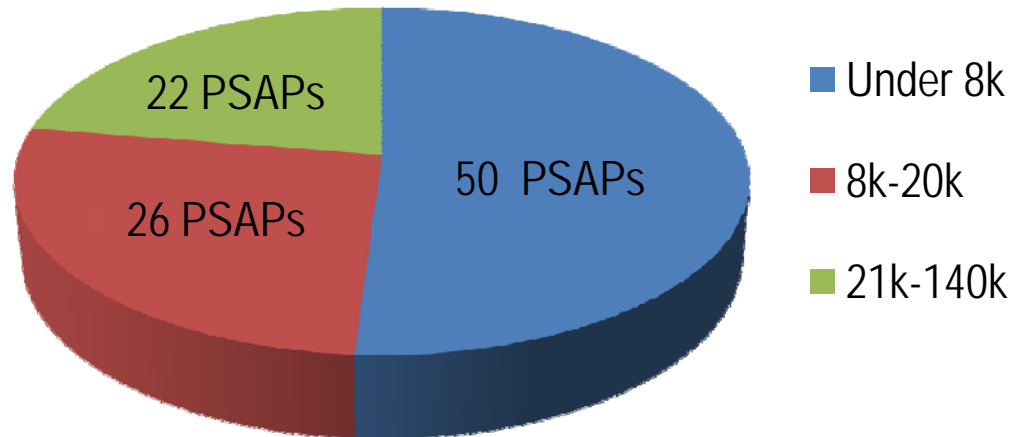
- Does not balance call volume as well
- Creates failover issues because of call volume imbalance
- Some existing Regional PSAPs get split up

Group 1 Regionalization Candidates

- Absent legislation or an authorized commission to direct consolidation, further regionalization within Connecticut can take place from the grass roots level or bottom-up
- Surveys and interviews of PSAPs revealed that numerous PSAPs have either
 - Investigated Consolidation
 - Conducted Meetings
 - Commissioned Studies
- 28 PSAPs fall into this category and are excellent candidates for continued consolidation within Connecticut

Annual 9-1-1 Call Volume

- A look at call volume earlier demonstrated that there are a large number of low volume PSAPs in Connecticut, the below chart provides a breakdown of annual 9-1-1 call volume

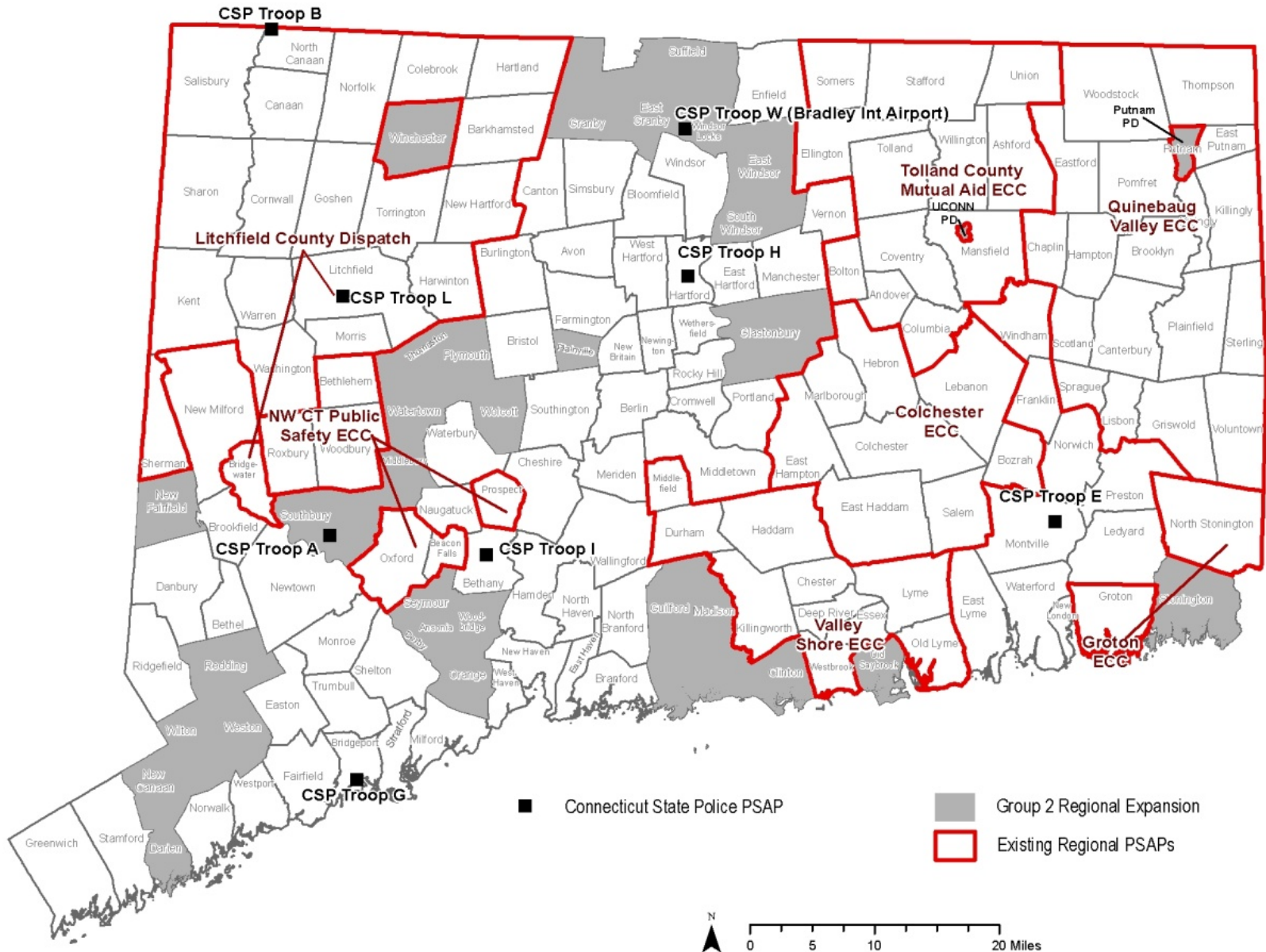


- The 50 PSAPs on this chart receive less than 22 9-1-1 calls per day and average less than 1 call per hour

Group 2 Regionalization Candidates

- For the purpose of this study, Kimball set a threshold of 8,000 9-1-1 annual calls to identify Group 2 Regionalization Candidates
- Most of these PSAPs only have one telecommunicator assigned per shift
- Of the 50 PSAPs in this category, 18 were included in Group 1
- The Group 2 Regionalization Candidates is comprised of the other 32 PSAPs that receive less than 8,000 9-1-1 calls annually and should be seriously considered for consolidation

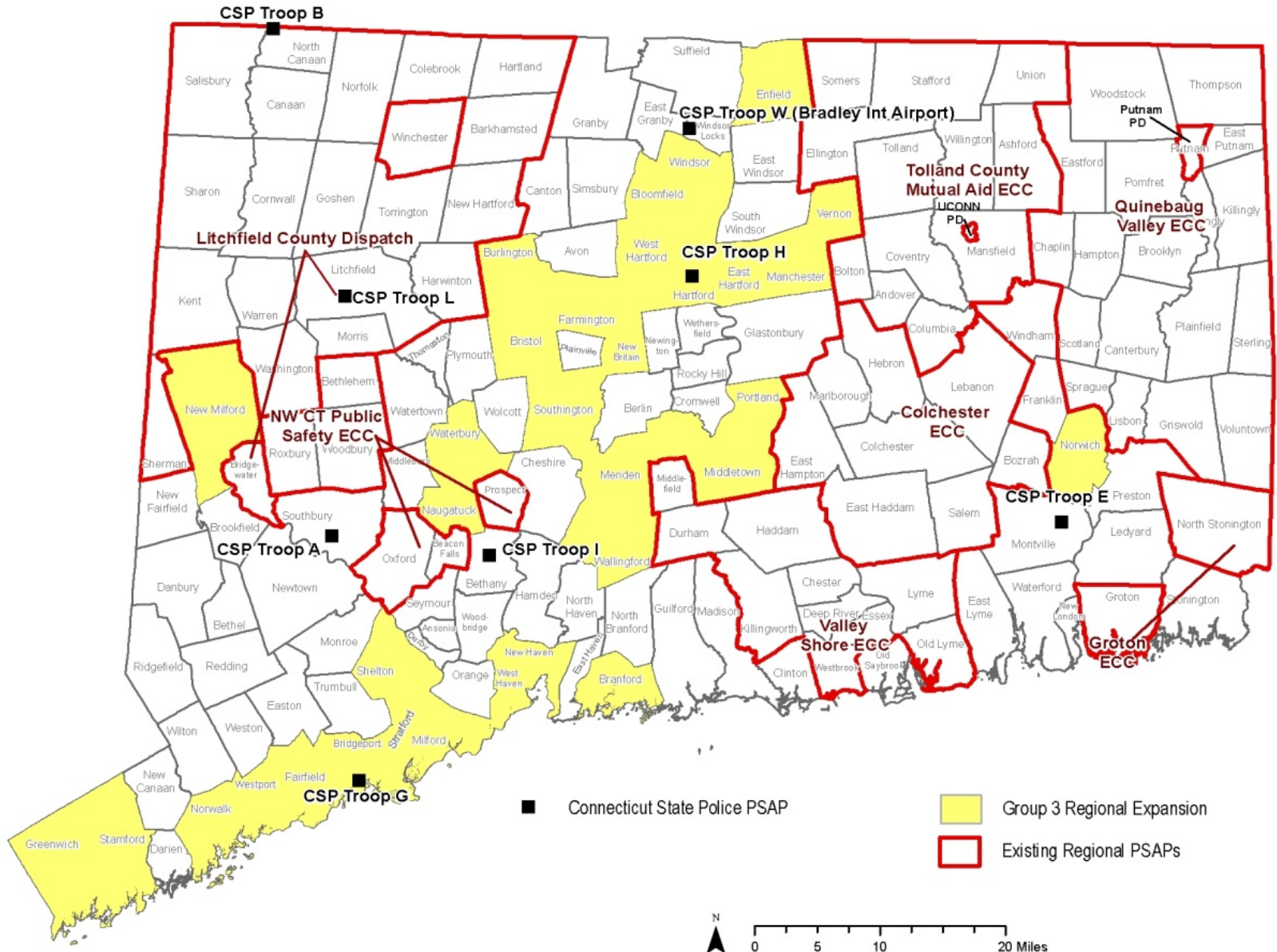
Connecticut PSAPs Group 2 Regional Expansion



Group 3 Regionalization Candidates

- Groups 1 & 2 were identified based on the following criteria
 - Interest in consolidation
 - Low 9-1-1 call volume
- Excluding the State Police and the 7 existing regional PSAPs, 60 PSAPs are included in Groups 1 and 2.
- Kimball strongly recommends that, initially, the State of Connecticut concentrate on these PSAPs for consolidation
- However, there are definite opportunities for consolidation in the remaining 31 standalone or multi-town PSAPs. These 31 comprise the Group 3 Regional Expansion Candidates.


Connecticut PSAPs Group 3 Regional Expansion



Funding Analysis – Overview

- 9-1-1 revenues have declined
- Primary focus:
 - Assess the manner in which Connecticut provides funding for regionalization
 - Develop specific recommendations for how the State could provide further incentives and assistance to local governments that seek to consolidate/regionalize emergency communications services
- Review all other funding provisions

Funding Analysis – Methodology

- Reviewed OSET's current 9-1-1 funding methodology
 - Statute and regulations
 - OSET staff provided data
 - PSAPs offered input during site visits
 - Analyzed data
- 

Funding Analysis – Current Provisions

- PSAP Subsidization Program
 - Multi-town PSAPs (a PSAP serving two municipalities)
 - Regional PSAPs (a PSAP serving three or more municipalities)
 - PSAP serving a single municipality with a population of 40,000 or more
- Transition Grant Program
 - Consolidation/regionalization studies
 - Expenses associated with consolidation/regionalization

Funding Analysis – PSAP Subsidies

➤ The formula used to calculate the subsidies is $t = ((p * n) * (c1 c2)) * b$

- t is the subsidy payment
- p is the aggregate population based on the most recent population figures from the Department of Public Health
- n is the percent above the state median number of 9-1-1 calls received, the value of which cannot be less than 1
- $c1$ is a variable based on the number of municipalities a PSAP serves multiplied by .2
- $c2$ is a variable based on the number of emergency services dispatched for each municipality a PSAP serves, i.e., .025 for one service, .5 for two and 1 for all three (police, fire and emergency medical services).
- b is the funding base, currently \$2.034.

PSAP Subsidies Conclusions

- The formula in support of regional PSAPs has an inherent bias built in due to the number of towns/municipalities dispatched – the *c1* variable
- Regional PSAPs are funded at a significantly higher level than PSAPs serving roughly the same population and receiving equal or more 9-1-1 call volume

PSAP Subsidies – Illustration

City / Region	PSAP Type	Population	9-1-1 Calls	9-1-1 Variable	Funding
City A	City	107,037	66,215	1.00	\$239,484
Regional A	Regional	103,633	34,959	1.00	\$981,014
City B	City	61,937	23,474	1.00	\$138,577
Regional B	Regional	62,213	17,090	1.00	\$658,014

PSAP Subsidies – Recommendations

- Stop counting boroughs and municipal subdivisions as though they were municipalities
- Eliminate the c1 variable
- Group similarly situated agencies together in a bracket or pool incorporating multi-towns into this model
- Give OSET regulatory flexibility to determine the level of funding applied to each bracket within legislatively-set parameters

Funding Analysis – Recommendations

- In addition to the current \$250,000 transition grant, provide supplemental transition grants in years two and three
- Require CMEDs to account for how they use the 30 cents per capita
- Tie funding to compliance with technical and operational standards
- Impose sanctions on municipalities that continue to operate low call volume PSAPS that do not justify the cost
- Give OSET the flexibility to adjust the levels at which it funds its various programs within legislatively established parameters

Funding Conclusions

- Connecticut funds everything it should fund – there is nothing for which provisions have not been made
- Provisions for incentivizing regionalization and for distributing funding generally are consistent with practices in states having similar funding mechanisms
- Adjustments that would facilitate a more equitable distribution across the board and create a more nimble and responsive funding program are recommended

Summary

- Connecticut has far too many PSAPs statewide. Connecticut is doing well from a technology perspective. However, substantial service improvements can be achieved by reducing the number
- Connecticut PSAPs have embraced CAD technology, have Phase II wireless 9-1-1 telephony and many have integrated mobile computing, and RMS capabilities into their CAD systems
- While an optimum approach may be ideal for consolidation, it is a monumental effort to undertake
- A grass roots initiative, with state guidance and support, is the recommended alternative for further consolidation
 - Currently, there are 28 PSAPs in Group 1 that want to take part in such an initiative
 - It gives these PSAPs an opportunity to control their destiny and set the standard for future PSAP consolidations

Summary

- If the 32 Group 2 PSAPs don't move toward consolidation on their own, it is highly recommended that the state proactively intervene to facilitate their consolidation.
- If the State of Connecticut modifies their funding model as recommended, additional funding would be released to fund supplemental grants discussed previously.
- Kimball has prepared a consolidation guidebook that will be distributed to assist PSAPs in their planning efforts
- Once consolidation begins, and experience gained by those consolidating PSAPs, the lessons learned can be collected and shared to ease the transition of those that follow.

Questions

Email Questions to: OSET@CT.GOV

