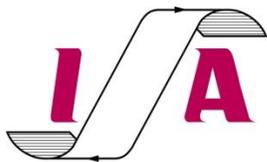


Cape May County, New Jersey

PSAP Consolidation Dispatch Study

FINAL REPORT

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Volume I: Executive Summary

1.0 Overview: Executive Summary

This most current report and study for the Consolidation of Public Safety Answering Points and Public Safety Dispatch in Cape May County is one of several that have been prepared over the past years to examine the impact of regionalizing E911 emergency communications on local public safety operations and residents. The prior study completed in 2008 indicated that *regionalization of E911 emergency communications services was both feasible and financially possible given increasing local budget pressures and industry advances in technology (and cost)*. During the 2008 study senior stakeholders established a requirement that full participation from all communities be considered in order for Cape May County to pursue a regional dispatch strategy.

The communities of Cape May County also have a history of shared services. Many of the communities have explored shared service/joint dispatching agreements over the years; some have recently formed joint dispatch operations, several have older agreements that still remain in place, while other relationships have not been successful and have ended due to various conditions. Perhaps the greatest undoing of the 2008 report was the requirement and perhaps assumption that consensus would be necessary among all the towns within the County in order for regionalization to be effective.

1.1 Background and Demographics

Cape May County is one of the two most unique counties in New Jersey whose primary industry is leisure and hospitality according to the June 2013 New Jersey Department of Labor and Workforce Development Division of Labor Market and Demographic Research. This fact creates a management paradox for emergency responses as peak and off peak populations and emergency calls vary greatly during the high population resort months from the slower winter months.

Cape May County is also one of the few counties to lose population in the decade since 2000 according to the same study. According to the reported information from the latest census in 2010 the decline in population was the largest percentage decrease of any county statewide. A consistently popular summer destination with 30 miles of beaches, Cape May County attracts vacationers from New Jersey and surrounding states, with the summer population exceeding 800,000, by some estimates. Tourism generates annual revenues of \$5.3 billion, making it the county's single largest industry, with leisure and hospitality being Cape May County's largest employment category.

The county is made up of 16 municipalities with a population of 102,326 year round residents. There are 91,047 housing units consisting of 46 percent year round residents and 54 percent used for seasonal and recreational. Over two-thirds of Cape May County's 2011 population resided in the townships of Lower, Middle, Upper and Ocean City. The diversity and seasonality of the County make regionalized dispatch services a more complex issue than in other parts of the State.

1.2 Findings

Intertech Associates has prepared the following report for a Public Safety Dispatch Consolidation Feasibility Study that began January 2013 for the purpose of evaluating the Public Safety Answering Points (PSAPs) and Public Safety Dispatch Points (PSDPs) that exist throughout the county. Our study aimed to identify areas for *improved operational and financial service delivery* that would benefit citizens, first responders, and visitors through a safer and more seamless emergency response. The major distinction between the 2008 study and this one is that there are no pre-conceived assumptions regarding participation beyond the study. In fact, communities were asked to participate in the initial interviews simply to acknowledgement their unique requirements for documentation purposes. Our role as consultants was to evaluate the data provided and determine which configurations might work best, if at all, in the development of a regional communications center. *There was no presumption of the outcome or the configuration of agencies or towns that would be interested in taking the results of the study to the next level.*

The scope of this document focused on the following key areas:

- Current Operations
- Alternative Configurations
- Staffing
- Budget
- Governance
- Funding options

Distinguishing characteristics of Cape May County identified during the course of this project are:

1. Of the twelve primary Public Safety Answering Points operating within Cape May County, ten PSAPs opted to participate fully in both initial and on-going discussions from which budget data, feasibility, and alternative governance and funding models were explored regardless of the personal opinions of the Chiefs and senior managers in each community. Ultimately the other two communities also shared baseline data that has been reflected in and throughout this report. We would like to thank those who participated for providing the time and detail necessary to complete this study. The PSAPs participating in the study are listed in the table on the next page.

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PSAP/PSDP Name	Municipalities Served within Cape May County	Projected 2010 Summer Population
Avalon Police Department	Avalon	35,000
Belleplaine Emergency Corps	Dennis Township	32,321
	Woodbine	8,073
Cape May City Police Department	Cape May City	36,340
	Cape May Point	3,864
	West Cape May	6,684
Cape May County Emergency Management Communications Center	County Back Up PSAP PSDP for County and Sheriff	n/a
Lower Township Police Department	Lower Township	22,866
Middle Township Police Department	Middle Township	75,000
North Wildwood Police Department	North Wildwood	52,810
Ocean City Police Department	Ocean City	118,348
	Upper Township	41,157
	Strathmere (Upper Township)	158
Sea Isle City Police Department	Sea Isle City	38,186
Stone Harbor Police Department	Stone Harbor	25,000
Wildwood Crest Police Department	Wildwood Crest	100,000
Wildwood City Police Department	Wildwood City	100,000
	West Wildwood	5,336

Table 1-1: Cape May County PSAPs

2. The primary obstacle preventing local PSAPs from committing to a regional communications center is concern over quality of services to be provided during the high volume/high population vacation period for the transient summer resort residents. County-wide emergency and non-emergency call volumes, especially on the barrier island, increase to almost 200% of the off-season activity resulting in approximately 427,000 calls for service annually, of which fewer than 75,000 are categorized as emergency E911 calls.
3. Institutional beliefs hold that the shore-facing communities must have a local PSAP to support peak period services resulting from the influx of summer vacation residents. Further it is believed that that only a local shore-town dispatcher can provide the services required by resort residents due to their familiarity with local geography and conditions. This long held paradigm will ultimately impact the development of and transition to a future single consolidated county center that may evolve over the next decade.
4. In order to support any level of regionalized emergency communications, a regional communications strategy will need to be developed. This includes a robust radio system and a regional record keeping function (CAD system) to support the dynamic and complex nature of a multi-agency dispatch environment.
5. Ocean City and the mainland communities of Lower and Middle Township are anomalies to the Cape May PSAP environment as their call volume and populations remain largely consistent throughout year. These communities do not see dramatic swings in call volume that result from the seasonal nature of the shore. The consistency allows for a stable staffing

and training environment throughout the year that is vastly different than the adjoining Barrier Island communities.

1.3 Regionalization Models

Given these constructs that have evolved over time, we envision that in order for regional emergency dispatch to be accepted, there will need to be broad acknowledgement that change is inevitable and if implemented correctly, can provide for options previously discarded.

Regionalized emergency dispatch requires a paradigm shift from the legacy way of doing business to a more structured and refined model that offers *better service*:

- The regional model takes into account the efficiencies of multiple emergency calls handled by a staff of consistently trained telecommunicators.
 - The legacy model presumes that a single dispatcher is capable of handling the emergency calls as well as the town's business requests, permits, forms and directions to residents and a full spectrum of police business activities – all while remaining proficient in the complexities of dispatching multiple agencies
- The regional model eliminates the local 'risk' factor of having a single dispatcher on duty by staffing to the 'critical mass' of emergency calls and a full complement of supervisory and support personnel to address the technology and business of dispatch.
 - The legacy model offers inherent risks to those Cape May County towns providing single telecommunicator services and accepts the possibility of delayed response or possibility of a dropped call due to workload or experience-related gaps.
- The regional model encourages towns to re-evaluate the support services previously thought to be 'sacred cows' and considered the domain of the dispatcher. This change-opportunity creates more efficient use of technology and existing personnel to improve services to residents and employees
 - The legacy model assumes a 'why change it if it isn't broken' mentality.

These contrasting positions are provided to make the point that a regional delivery model will offer substantially more service than the single dispatcher-PSAP model now in use in several shore-facing towns. More compelling is that when combined with the inevitability of regionalized services – as is the direction of New Jersey shared services – and the financial comparisons, regionalized dispatch services become a 'when' not an 'if'.

Our research identified the following models as most feasible for dispatch regionalization across Cape May County:

- Regional Fire/EMS Dispatch Center

This method is operationally beneficial to the fire agencies but financially redundant, as existing staff within each of the PSAPs would still be required to answer primary 911 calls

- County-Wide Regional Communications Center

Consolidating the total call volume into a *single County-wide Communications Center* would result in *significant cost savings* in excess of current annual costs. These savings are

directly related to technology investments and staffing changes while increasing overall service efficiencies, especially for the fire service.

- Barrier Island/Mid-County Communications Center

The logical grouping of a “Regional Shore-Town Center” and a separate “mainland center” has physical limitations and risks that were highlighted in the aftermath of Super Storm Sandy.

- Multiple “mini-consolidations”

Several examples were modeled as small Two-PSAP Consolidations which may be an initial starting point; however, there is minimal interest in establishing multiple PSAP’s of this nature.

Our findings and recommendations are as follows:

1.4 Operational Findings

- The current role of the County Communications Center in support of local emergency service is that of back up call answering for overflow 911 calls. The County is not responsible for dispatch to the local municipalities and has limited ability to reach the primary PSAP, resulting in a delayed and *procedurally flawed system that puts callers at potential risk.*
- For the most part, Fire Departments believe that a consolidated emergency communications center would provide improved services, procedural efficiency, and operational value to fire and medical agencies over the current method.
 - Fire incidents represent a fairly low percentage of total calls for service. Police-focused dispatchers do not have the experience to fully support fire personnel during a major incident and, in most cases, are not staffed adequately to support a fire incident.
 - Many of the PSAPs schedule only one dispatcher per shift – including several of the beach resort communities, even during the busy summer season. Several dispatchers mentioned being overwhelmed at times and the importance of multi-tasking and prioritizing incoming calls.
- There was a corresponding hesitation among Police Department management to change the method of providing emergency communications services. Most notable was their concern during the peak season as total call volume swells to almost 200% of non-peak traffic across the County. Additionally, Law Enforcement supervisors held to their perception that dispatchers are most effective if they are town-based because of their knowledge of local landmarks and familiarity with surroundings.
 - Police are hesitant to remove dispatchers from the local police departments, regardless of low call volumes during the nine off-peak months, because dispatchers are resources to supplement the clerical, administrative, and police support functions involved in running a police department.

1.5 Financial Findings

The financial analysis supports at least two alternatives for regional dispatch for Cape May County. In aggregate, Cape May County communities spend over \$6.5 million to staff 12 PSAPs that employ 59 full time dispatchers and up to 40 part time dispatchers. Although each of the consolidated models shows a net loss (compared to current budgets) in the first year when equipment and facility capital costs are included, they all show *significant savings over a multi-year period* that includes a more realistic payout method over five years for equipment and fifteen years for facility renovations.

For example, the single-site County-wide consolidation model shows a ***cumulative savings of over \$16 million within the first five years over current five year dispatch cost projections.*** This model conceptually provides the most attractive financial and operational benefits county-wide. Despite the positive attributes of this model, there is little support across the county to believe a single model solution will be viable in the immediate future.

For that reason, we proceeded with the development of a partial consolidation model of seven PSAPs across the Barrier Island/Mid-County region that shows a ***cumulative savings of \$7 million within the first five years over current five year dispatch cost projections.*** These savings are primarily the result of a staffing realignment within a regional center that assumes a proposed staff of 13 full time and 8 part time telecommunicators to answer the same volume of calls than the current staff of 50 full time dispatchers across the seven PSAPs.

With more dispatchers on duty at all times than in the current environment - four instead of one or two along with full time Shift Supervisory support - there would be increased efficiencies, a transfer of internal local knowledge, and increased service delivery to first responders.

For many reasons, we focused on a Barrier Island/Mid-County Center (one center located “mid-county” serving communities on both the mainland and barrier island) as opposed to a Barrier Island-centric center. They are:

- Logistically, there are limitations to locating a regional center in a shore town on the Barrier Island, as it would require a ‘hurricane proof’ renovation to any of the existing facilities. The alternative would be to build a new hurricane-proof facility increasing the expense and risk imposed by locating a center on the Barrier Island.
- Seasonality significantly impacts call volume and staffing. By combining the two types of communities into a single center, there can be a more consistent staffing model with less reliance on part time support. This improves the transfer of knowledge between dispatchers so that the ‘local’ historical knowledge can be used throughout the center.
- A preponderance of the Barrier Island communities expressed a reticence to support a regional communications center while mainland communities were more optimistic about its development and their participation.

Our financial assumptions for a Barrier Island/Mid-County Center include:

- The initial participating communities would be Cape May City, Wildwood City, Stone Harbor, Avalon, Middle Township, Lower Township, and Cape May County EOC.

- Technology costs have been spread over a five year period and facility renovation costs have been spread over a fifteen year payout period which allows for the potential savings to begin first year of consolidated service.
- Capital investment expense will require funding of a new county-wide radio communications system that provides microwave connectivity and interoperable communications for participating communities. Local radio communications systems may require upgrading or migration to the county system at local expense.
- A new County CAD/RMS system is NOT included; however, the cost to upgrade the Enforsys CAD system used by most of the PSAPs to a “regional license” can be used as a temporary measure while a full County-wide CAD/RMS system is researched.
- Financial assumptions include renovation to an existing facility, rather than construction of a new building. Assumptions have been mad that the County can capitalize on expanding the functionality of an existing building project (such as its plans for a new County Correctional Facility), as it would offer substantial financial benefit. Budgets include the cost of leasing 6,000 sf at \$350 per sf.
- Technology budgets include back-up center dispatch consoles for hot backup service at the Belleplain Dispatch Center that will require an additional microwave link for radio connectivity.

We also explored the rationale for a regional fire dispatch center as all fire agencies involved in the study supported this model and it would not impact police operations. While the most advantageous *financial* alternative for Cape May County is a consolidation of communities who have expressed the most interest or willingness to move into a regional environment, there is still a *significant operational benefit* that can be derived even from a Regional Fire/EMS Dispatch Center. In fact, several New Jersey counties began their regionalized efforts first as a Fire Dispatch Center and then ultimately transitioned into regional county centers.

1.6 Recommendation: Barrier Island/Mid-County Communications Center

We explored each model in the Staffing and Budgeting sections of the report and while we ultimately recommend the partial consolidation, we recognize the potential seamless nature of initiating this transition with the fire service using the regional dispatch model as an initial first step:

- We define the partial consolidation as the Barrier Island/Mid-County Communications Center most likely to yield financial and operational benefits to the County.
 - *As with other regional centers in New Jersey, the initial model could begin as a fire dispatch center and gradually transition to a full scale NG-911 PSAP as part of the transition strategy.*
- Primary attributes of this model include dedicated call-takers, a dedicated fire/EMS dispatcher, and dedicated police dispatchers.
- The center would have a full complement of technical and administrative management and staff sufficient to provide initial and on-going start-up support.

- It is anticipated that ten-digit non-emergency calls to the police or fire departments will be answered by telecommunicators in the regional center. The regional center's call takers would answer local police or fire calls, dispatch those needing assistance, or transfer administrative requests back to the respective local departments.
 - o Each community will need to make its own decisions about how to address functions that its dispatchers now perform in addition to their dispatching duties.

Operational improvements that would result from this transition include:

- **Ability to accommodate peak traffic, seasonality, and high volume periods**

A consolidated dispatch environment will have capacity and capability to accommodate the peaks and valleys of call volume. The call volume analysis and associated staffing estimates anticipate a higher than documented volume of activity with all call activity that is now processed by the individual towns handled within the Center by dedicated call takers and dedicated dispatch staff. The consolidated center would be able to handle a surge in demand for emergency communications better than any individual agency by itself.

- **The proposed center will support the full range of non-emergency and emergency calls**

Using the NFPA 1221 standards as a guideline for estimating the staffing requirements of the proposed center, the new center must be capable of handling the high volume of peak non-emergency call volume from day one. The minimum staffing using the NFPA standards are two full time dispatchers on duty at all times.

- **Coordination of emergency service resources**

This may be the most important change impacting first responders and includes the procedural consistency of having call takers and dispatchers trained and capable of delivering information when and how first responders need it. It is further enhanced by having telecommunicators able to share incident data using the same record databases within the same environment.

- **Increased information flow**

An outgrowth of maintaining an information database that contains multi-jurisdictional, cross-disciplined data is the availability of that data to first responders across jurisdictions. A regional CAD/RMS system will become a vital tool in this configuration.

As previously identified, there are both financial and operational benefits associated with regionalizing emergency communications services within a single center. The distribution of the savings can come in several forms depending upon how the governance is established and managed. We recommend that the County Emergency Services Department continue to expand its function to include regional emergency communications and the oversight of that transition. In that capacity, the County would be the authorized agency to provide the umbrella services of administration, funding and management and can continue to support its emergency

communications role while creating procedural and operational continuity that does not exist under the present configuration.

Further, to establish a proper funding mechanism, we envision the following steps occurring while the County explores alternative sustainability models available for implementation:

1. Creation of a preliminary advisory committee to begin discussion regarding start-up costs, location, services, inter-local agreements and other issues related to the governance and implementation of a regional emergency services dispatch center

This informal committee's initial responsibility would be to seek input from all those interested in participating in a regional center to develop initial processes, procedures, and necessary inter-municipal agreements for consideration by each town's management. Additionally, with representation from participating agencies and the County, the discussion of funding, operations and management, technology deployment, and membership would become part of the dialogue. This committee would continue as an ongoing component of the governance structure.

2. Development of standing sub-committees to represent the various aspects of Regional Emergency Services.

Once the development of a sub-committee is established, participation by initial town leadership and agencies in standing sub-committees should reflect those that anticipate contributing in the start-up process and on-going services.

- Technology, governance, staffing, and finance sub-committees should be established to coordinate with the delivery of services with the County.
- A transition strategy will be necessary for working out the procedures, policies, and delivery mechanisms for communications and record keeping.

3. Development of financial policies and procedures to address municipalities that are early adopters without creating financial disincentives for them or for later joiners to the center.

- Policies need to take into account the initial start-up costs critical to launch a regional communications center, its ongoing operations, and staff contributions for initial and ongoing membership. A minimum contractual commitment requiring municipal membership of a pre-determined period should be established to develop a stable financial basis of operations and functionality. The basis of this fee should be established using a combination of variables that capture local conditions, capital investments to be made, the operating expenses, and any marginal increment such as staffing, desks, etc. required to support the needs of each incremental community. The transition team established to facilitate the development of the governing inter-local agreement will need to incorporate the methodology for financial health and sustainable funding.
 - Refinement of the conceptual savings models presented in this report will be required to determine the contributions anticipated by each community

- Precedent in other New Jersey regions has been to establish a county tax to cover the ongoing operating costs of regional dispatch
- Developing a bonding mechanism for the capital equipment and facility development should be considered
- Any municipality that joins the emergency communications center after the period for original charter membership should pay a one-time membership fee.

1.7 Conclusion

It is clear that combining dispatch services in a regional center will yield financial benefits and for most communities, there can be significant operational improvements impacting communication and interoperability between agencies. The extent will vary greatly from PSAP to PSAP and the net amount will change even further once local needs are readdressed through the lens of a larger regional communications center. Conversely, it will also require each community to re-think local business practices to reflect a more efficient use of personnel to conduct day-to-day police business. In some cases, it may alter the number of hours Police Departments are accessible for police business; in other cases, it may require a shift of staff from dispatcher to administration to support functions that are now handled in a 24x7 environment during non-peak periods.

The County is in the process of addressing a small transition to consolidate 911 call answering and dispatch with two communities that could become the cornerstone for the larger regional effort. We would encourage local participants to engage with this process in an open and honest dialogue to define and organize the critical tasks necessary that should reflect the requirements of a larger center. Communities not directly involved in this immediate effort would be encouraged to become actively engaged in procedural and developmental aspects of the program as the decisions made on this small scale could have lasting long term impact.

Volume II: Existing Conditions

2.0 Overview: Existing Conditions

Cape May County has retained the services of Intertech Associates to conduct a comprehensive study of the Public Safety Answering Points (PSAPs) and Public Safety Dispatch Points (PSDPs) that exist throughout the county. The study's aim is to identify areas to improve the efficiency and quality of service to the citizens, visitors, and first responders through the possible consolidation of PSAP and PSDP services through the evaluation of current methods of operation and the costs associated to each municipality and the county and propose a consolidated model. This volume of the report addresses the current operational and functional environment within each local PSAP and provides a summary of existing procedural, technical, operational, functional and management conditions as related to the task of providing emergency 911 communications services to the residents and first responders of Cape May County. Appendix B includes the detailed summary of each PSAP, as well as highlights of comments from interviews with staff at each PSAP.

Cape May County includes 256 square miles of land area located at the southern tip of the State bordered by Atlantic County to the north, the Atlantic Ocean to the east and south and the Delaware Bay to the west. The county is made up of 16 municipalities with a population of 102,326 year round residents with an estimated summer population of 614,261. There are 91,047 housing units consisting of 46 percent year round residents and 54 percent used for seasonal and recreational.

Cape May County has conducted several previous feasibility studies over the past 20 years to examine the impact of regionalizing E911 emergency communications on local operations and residents. The most recent study completed in 2008 indicated that regionalization of E911 emergency communications services was both feasible and financially possible given increasing local budget pressures and industry advances in technology (and cost). This 2008 study required full participation from all communities in order to be considered most cost efficient and operationally practical. Many of the communities have also explored shared service/joint dispatching agreements over the years, some of which remain in place and many of which have not been successful and ended due to various reasons and relationships.

Intertech Associates initiated the research and data gathering phase of this feasibility study project in January 2013. Through a series of questionnaires and onsite reviews we have prepared a comprehensive overview of current conditions for 11 PSAPs and the County Emergency Communications Center. Our detailed follow up offered agencies the opportunity to clarify data submitted on survey forms and through this effort provided agencies with the opportunity to voice opinions, benefits, challenges, and concerns regarding a potential regionalization of dispatch services.

2.1 Findings Summary

There are 12 primary Public Safety Answering Points operating within Cape May County. The study's goal was to document the results of all 12 PSAP's. Although North Wildwood and Sea Isle City initially expressed reluctance to participate during the data gathering, they both met for interviews later in the study process but did not return any additional data forms. The remaining 10 PSAPs opted to participate fully in both initial and on-going discussions from which budget data, feasibility and alternative governance and funding models will be explored.

The 12 PSAPs operating in Cape May County and the municipalities they serve are:

PSAP Name	Municipalities Served	Projected 2010 Summer Population
Avalon Police Department	Avalon	35,000
Belleplaine Emergency Corps	Dennis Township	32,321
	Woodbine	8,073
Cape May City Police Department	Cape May City	36,340
	Cape May Point	3,864
	West Cape May	6,684
Cape May County Emergency Management Communications Center	County Back Up PSAP PSDP for County and Sheriff	n/a
Lower Township Police Department	Lower Township	22,866
Middle Township Police Department	Middle Township	75,000
North Wildwood Police Department	North Wildwood	52,810
Ocean City Police Department	Ocean City	118,348
	Upper Township	41,157
	Strathmere (Upper Township)	158
	Corbin City (Atlantic County)	500
Sea Isle City Police Department	Sea Isle City	38,186
Stone Harbor Police Department	Stone Harbor	25,000
Wildwood Crest Police Department	Wildwood Crest	100,000
Wildwood City Police Department	Wildwood City	100,000
	West Wildwood	5,336

Table 2-1: Cape May County PSAPs

Each PSAP was interviewed during on-site meetings that resulted in the preparation of Existing Condition Summaries. Each assessment addressed:

PSAP Call Processing	Technical PSAP Capabilities
<ul style="list-style-type: none"> Call Volume and CAD Events 	<ul style="list-style-type: none"> Voice and Data Systems
Dispatch Operations	Staffing and Salary
<ul style="list-style-type: none"> Dispatcher Tasks and Services 	Observations and Perceptions

Table 2-2: Existing Conditions' Interview Topics

2.2 Operational Findings

An assessment of current operational conditions across the PSAPs shows:

- Each of the PSAPs, except for Belleplaine Emergency Corps, is part of a law enforcement agency organization. This includes the Cape May County Emergency Communications Center, which provides dispatch services for all county resources and is primary back-up for all eleven local PSAPs.
- Without exception, Fire Departments we spoke with believe that a consolidated emergency communications center would provide improved services, procedural efficiency and operational value to fire and medical agencies over the current method.
- Fire incidents represent a fairly low percentage of total calls for service, and Fire Chiefs believe that police-focused dispatchers do not have the experience to fully support fire personnel during a major incident and, in most cases, are not staffed adequately to support a fire incident.
- Many of the PSAPs schedule only one dispatcher per shift – including several of the beach resort communities, even during the busy summer season. Several dispatchers mentioned being overwhelmed at times and the importance of multi-tasking and prioritizing incoming calls.
- Although several PSAPs view the dispatcher as the “face to the community,” most agreed that the dispatch function could be moved out of the police building with minimal impact and that the call taking/dispatch function could be located virtually anywhere in the County; most felt that a consolidated center should not be located on the barrier island.
- Several beach communities are openly prepared to consider regionalizing dispatch services if it is determined to offer both service improvements and a financial benefit.
- Dispatchers are prepared and trained to provide Emergency Medical Dispatch (EMD); however, most do not have the opportunity for extended medical instruction due to rapid response times within relatively small jurisdictions. Dispatchers on the mainland and Ocean City that provide EMD have had more experience due to the larger geographic area that is required to be covered by some fire/rescue departments.
- The County Communications Center offers a call answering service for the towns in the event their 911 calls overflow. The County is not responsible for dispatch and has limited ability to reach the primary PSAP, resulting in a procedurally flawed system putting callers at a potential risk.
- Although the County Communications Center is able to communicate with County Law Enforcement, record keeping and reporting are manual processes and not automated. There is no use of a CAD system to maintain or record events.
- Several of the PSAPs have current plans in various phases of discussion and implementation to build or relocate to new buildings or renovate their dispatch centers, including Sea Isle City, Stone Harbor, Lower Township, Middle Township, and Wildwood

Crest. Others have recently undergone renovations or new buildings, including Avalon and Belleplain.

- Several Police Departments indicated that they are using their CAD to support data-based police operations and that real-time access to CAD data is critical.

					1.3
	E911 Calls	Police CAD	Fire CAD	Medical CAD	Total Call Volume (CAD increased 1.3 for Admin)
Cape May County Emergency Comm Ctr	1,261	n/a	n/a		
Avalon	2,781	29,776	252	733	39,989
Belleplain	3,638	1,000	304	3,575	6,343
Cape May City	3,545	23,917	323*	1,149*	33,006
Lower Township	10,120	36,872	591	2,178	51,533
Middle Township	12,901	38,309	728	3,326	55,072
Ocean City	15,627	44,454	1,132*	4,017*	64,484
North Wildwood	5,078	23,917	323	1,149	33,006
Sea Isle City	2,875	20,354			26,460
Stone Harbor	957	12,809	109	201	17,055
Wildwood	12,472	48,927	411*	1458*	66,035
Wildwood Crest	3,720	25,326	217	779	32,924
Total	74,975	305,661	4,390	18,565	427,167

Table 2-3: Estimated County Call Volume 2012

*Fire/Medical CAD for Wildwood is 1,849 split as 22% fire/78% medical. Wildwood Crest data from 2011. Sea Isle City data from 2009. Breakout of Total CAD data (to Police versus Fire/EMS) estimated for North Wildwood.

- The estimated total 911 and administrative call volume handled by the 12 PSAPs in 2012 is 427,167. Related CAD events for the same period are 256,551 broken out as 305,661 police (91%); 4,390 Fire (1.5%) and 6.7% or 18,565 Medical. (This figure includes data estimates and assumptions for Sea Isle City, Wildwood Crest, and North Wildwood)
- We have used total Fire/Medical CAD data to estimate percentage assumptions which were averaged at 22% of Fire and 78% Medical to adjust for communities that did not have the break out figures. This would apply to the City of Wildwood, Cape May City, Ocean City.
- To determine a total call volume for Cape May County we have estimated the figure using an industry standard of 1.3 times the CAD events.

- Although most of the PSAPs provided CFS data from their CAD or records, almost none were able to provide data for administrative call volume, radio chatter, or a breakdown of wired versus wireless calls.

Town	Peak 911 Traffic Volume	Busy Period	Busy Hour	Busy Day
Cape May County Emergency Comm Ctr	1045 (overflow call volume)	May-November	n/a	n/a
Avalon	1,780	May-September	1:30-3pm	Friday/Sat.
Belleplain	1,715	May-September	Varies	Friday-Sunday
Cape May City	2,757	April-October		
Lower Township	5,032	May-September		
Middle Township	6,310	May-September	11AM/10PM	Friday and Monday
Ocean City	13,296	April-December	9PM	Saturday
Sea Isle City	2,100	May-September	n/a	Saturday
Stone Harbor	663	May-September	7AM	Saturday
Wildwood	8,492	May-September	8-10AM/PM	Friday/Saturday
Wildwood Crest	2,710	May-September	6PM-2AM	Saturday

Table 2-4: Peak Busy Statistics Call Volumes 2012

- Peak 911 Call Volume spans a five month period during which a total of 45,900 calls were recorded. Non-911 call volume may be 3-5 times this figure during the peak season.
- Assuming a four times increase in non-emergency call volume, there may be as many as 183,000 calls coming into Cape May County dispatch centers during the peak season. The average monthly County wide call volume is estimated to be 36,720 total calls.
- During the remaining off-season period, call volume drops off significantly resulting in nearly a 200% drop in volume in some cases. Ocean City is the only municipality that experiences consistent 911 and other call volume traffic throughout the year with the exception of January-March.

Job Description	Avalon	Belleplain	Cape May City	Cape May County Comm Ctr	Lower Twp	Middle Twp	Ocean City	Sea Isle City	Stone Harbor	Wildwood	Wildwood Crest
Shift Supervisor	0	1	0	1	0	0	0		0	0	Police Squad Sergeant
Call Taker/ Dispatcher (FT)	3	23	3	7	8	9	10	3	3	5	4
Call Taker/ Dispatcher (PT)	4	0	4	0	9	3	7		4	0	5
Shift Schedule:	12 hour shifts	12 hour shifts	12 hour shifts	8 hour shifts	12 hour staggered shifts	12 hour shifts	12 hour shifts		12 hour shifts	8 hour shifts	12 hour shifts
Total Full Time Dispatch Staff	3	24	3	8	8	9	12	3	3	5	4
Total Part Time Dispatch Staff	6	0	6	0	9	3	7	0	6	3 Seasonal PT	5

Table 2-5: Staffing

- There are a total of 55 full time dispatches (excluding Belleplain) and 36 part time dispatchers employed by the 12 PSAPs. There is one full time supervisor providing direct full time dispatcher support at the County Communications Center.
- During the slowest shift and time of the year, there are approximately 12-14 full time dispatchers on duty among the 12 PSAPs
- All other supervisory staff assigned to support dispatch is senior police management.
- The use of civilian dispatchers within a police PSAP to support both police and fire dispatch has resulted in operational inconsistencies depending upon training and experience levels of dispatchers. Inconsistent service delivery between dispatchers, informal quality assurance oversight and in almost all cases, ancillary duties that are assigned to these staff further diminish the standard level of service that should be maintained as minimum criteria for the dispatch function.

- A large number of tasks assigned to PSAP employees are considered non-emergency public services and police department support services, which are outside the realm of traditional emergency communications functions. However, many of those interviewed felt the telecommunicators should be dedicated to emergency communications
- Current dispatch staff levels are well below APCO and NFPA standards that would require a minimum of two dispatchers in order to provide Emergency Medical Dispatch.
- Clerical, administrative, technical and dedicated supervisory or human resource staff are often part of the law enforcement command structure and not specifically available to support dispatch functions
- All PSAPs report compliance with the State of New Jersey training requirements which includes EMD.

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2.3 Dispatcher Tasks and Services

Most of the participating PSAPs responded to surveys that highlight the various tasks and services intrinsic to the emergency communications dispatcher as well as tasks that have evolved over time to support the business of policing and town/county-based services. Services were charted in four different areas:

<u>Dispatcher Services and Tasks</u>	<u>Avalon</u>	<u>Belle plain</u>	<u>Cape May City</u>	<u>Cape May County</u>	<u>Lower Twp</u>	<u>Middle Twp</u>	<u>Ocean City</u>	<u>Sea Isle City</u>	<u>Stone Harbor</u>	<u>Wildwood</u>	<u>Wildwood Crest</u>
Emergency Dispatch Tasks (911)				Back up Center							
911 Call Answering	X	X	X	X	X	X	X	X	X	X	X
Provide EMD	X	X	X	X	X	X	X	X	X	X	X
Transfer to EMD Provider				X		X					X
Police Dispatch	X		X	X	X	X	X	X	X	X	X
Fire Dispatch (tone or radio)	X	X	X	X	X	X	X	X	X	X	X
Medical Dispatch	X	X	X		X	X	X	X	X	X	X
Ambulance Call Out to surrounding Towns	X	X	X	X	X	X	X	X	X	X	X

Table 2-6: Emergency 911 Services

- All PSAP telecommunicators are EMD trained. Limited EMD is often needed as EMS response is on scene within a short period of time due to smaller jurisdictions. A more significant amount of EMD is provided in Belleplain and Lower Township, Middle Township, and Ocean City due to the size of the jurisdictions supported.

Routine Public Safety Tasks	Avalon	Belleplain Fire/EMS only	Cape May City	Cape May County	Lower Twp	Middle Twp	Ocean City	Sea Isle City	Stone Harbor	Wildwood	WW Crest
Request assistance of Highway/DPW	X	X	X	X	X	X	X		X	X	X
Request mutual aid/special services and utilities	X	X	X	X	X	X	X		X	X	X
Request wrecker assistance	X		X	X	X	X	X		X	X	X
Request wildlife removal	X		X	X	X	X	X		X	X	X
Walk-in Requests for Medical Assistance	X	X	X	X	X	X	X		X	X	X
Monitor prisoners in holding cells and booking area	X		X	X	X	X	X		X	X	X
Assist in prisoner evacuation in case of emergency	X				X				X		X
Process fingerprinting/fees											
NCIC lookups/Background checks	X		X	X	X	X			X	X	X
Enter warrants/restraining orders	X					X			X		X
File Protective Orders					X	X					X
Activate Knox Box keys for Fire Dept											X

Table 2-7: Routine Public Safety Tasks

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Non-Emergency Dispatch Tasks	<u>Avalon</u>	<u>Belleplain Fire/EMS only</u>	<u>Cape May City</u>	<u>Cape May County</u>	<u>Lower Twp</u>	<u>Middle Twp</u>	<u>Ocean City</u>	<u>Sea Isle City</u>	<u>Stone Harbor</u>	<u>Wild wood</u>	<u>WW Crest</u>
Town/Non-Emergency Call Center	X		X	X	X	X	X	X	X	X	X
After hours pick-up/drop off for money and possessions	X		X						X		X
Walk-in Requests for information	X		X	X	X	X		X	X	X	X
Walk-ins with lost/stray dogs	X		X		X				X	X	X
Safe Haven	X	X	X		X	X			X	X	X
Provide keys for elevator and building access			X	X		X	X				X
Maintain Parks and Recreation Permits			X								
Provide applications/complete information for pistol permits											
Provide change of address stickers											
Monitor court ordered child exchange (custody)			X			X					
Assign officers to work vacancies											
Assignment of crossing guard posts							X				

Table 2-8: Non-Emergency Tasks

- Clerical, administrative, technical and dedicated supervisory or human resource staff is often part of the law enforcement command structure and not specifically available to support dispatch functions.

Dispatcher Services and Tasks	Avalon	Belleplain	Cape May City	Cape May County	Lower Twp	Middle Twp	Ocean City	Sea Isle City	Stone Harbor	Wildwood	Wildwood Crest
Provide paychecks to crossing guards											X
Collect time cards											
Coordinate functions during special events				X							
POC for probation officers and meetings											
Electronically open/close sallyport doors and prison cells	X		X		X	X			X	X	X
Monitor/Receive residential/commercial alarms	X	X	X		X	X	X		X	X	X
Run Abstracts					X	X					
Duplicate NCIC Records					X						
Generate reports via CAD					X						
Monitor CJIS					X						
Senior call-out program							X				
911 education in schools							X				
Dog license look-up							X				
Dispatch non-emergency transport		X									

Table 2-9: Dispatch Services and Tasks

INTERTECH ASSOCIATES TECHNOLOGY & SECURITY CONSULTANTS AND ENGINEERS

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2.4 Human Resource and Staffing Findings

There were four predominant job classifications for the dispatch function:

- Communications Officer Trainee
- Communications Officer/Public Safety Telecommunicator/Operator/Dispatcher
- Senior Communications Officer/Senior Public Safety Telecommunicator
- Communications Supervisor/Chief of Telecommunicators

There was significant range in salary for each position but generally, staff from each PSAP fall into the middle range with few on either end of the spectrum. Salary ranges for each full-time salaried position are:

- Communications Officer Trainee : \$18,720 - \$49,408
- Communications Officer/ Telecommunicator/Dispatcher: \$24,440 - \$59,248
- Senior Communications Officer/Senior Public Safety Telecomm: \$26,930 - \$50,592
- Public Safety Supervisor/Chief: \$29,168 - \$72,744

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	Titles	Wages		PT Hourly Rate	Benefits
		Low	High		
Avalon	Communications Officer	\$ 25,000.00	\$ 49,652.00	\$15.00	37%
Belleplain*	Communications Officer	\$ 11,748.00	\$ 27,375.00	\$11.00	29%
Cape May City	Communications Trainee	\$ 26,077.00			
Cape May County	Communications Officer	\$ 31,030.00	\$ 34,145.00	\$15.00	
	Public Safety Telecommunicator	\$ 26,930.00	\$ 50,592.00		
	Sr. Telecommunicator	\$ 26,930.00	\$ 50,592.00	\$12.95	varies
	Public Safety Supervisor	\$ 29,168.00	\$ 55,535.00		
	Chief of Telecommunicators	\$ 35,304.00	\$72,744.00		
Lower Twp	Public Safety Operator	\$ 40,902.00	\$ 49,640.00	19.66-23.87	40%
Middle Twp	Public Safety Operator	\$ 18,720.00	\$ 53,000.00	6.50-15.46	43%
Ocean City	Communications Officer Trainee	\$ 33,850.00	\$ 49,408.00		
	Communications Officer	\$ 40,954.00	\$ 59,248.00	\$15.00	
	Communications Supervisor	\$ 44,403.00	\$ 68,967.00		
Stone Harbor	Communications Officer	\$ 25,000.00	\$ 55,617.00	\$15.00	25%
Wildwood Crest	Communications Officer	\$ 25,000.00		\$14.00	59%
Wildwood	Communications Officer	\$ 34,000.00	\$ 59,000.00	8.50-12	34%

Table 2-10: Typical Job Titles and Salary Ranges

- Belleplain telecommunicators are employees of a 501-C3 corporation. It is a volunteer, non-profit organization that pays its own salaries, and not a governmental organization. According to Belleplain management, the dispatch function is largely subsidized by the EMS business.
- The Communications Officer and Senior Communications Officer positions are very closely aligned by salary. Further discussion and differentiation would be needed to determine the proper salary and position placement as there appears to be duplication.

2.5 Technological Findings

2.5.1 Radio Systems and Frequencies

One of the most critical communications tools available to each of the dispatch centers is an interoperable voice communications system. To a large extent, first responders are able to communicate with local dispatchers; however, there is limited interoperability between towns. Fire agencies who rely on each other for mutual aid have more extensive use of County Fire Channels and likewise, Cape May County does use a county-wide channel to communicate on dispatch to dispatch and dispatch to car.

There are several options that can be developed or evolved into a wide area radio communications environment for Cape May County. However, there are no immediate viable systems that can be upgraded or expanded to achieve a county-wide service. The following sections describe the current projects and systems in operation at the time of the analysis.

2.5.1.1 UHF Trunked System – Prosecutor’s Office Pilot

A Cape May County Pilot Project was being run out of the Cape May County Prosecutor’s Office at the time of the report. This P25 trunked UHF (not in T-band) radio system served as a pilot network for the purpose of demonstrating and assessing the system’s technology in a real-world environment. This, in turn, allowed the County to evaluate its effectiveness and suitability in order to consider its likelihood for further implementation on a larger scale. The County is licensed for ten channels but is only using six of the ten channels on three tower sites.

During the trial, the system was used primarily for data transmission by the MIS department of the Prosecutors office. However, the system could be used as a county-wide radio system as the channels are licensed to the County.

The system was scheduled to be dismantled in April 2013 because the equipment from Power Trunk was on a test program. Power Trunk was receptive to having the County continue use of the system; however, the system’s use for wide area county communications was never implemented based upon decisions made within the Prosecutors office.

Regardless of whether the County chooses to continue with Power Trunk or not, the County should consider maintaining these frequencies as they are a highly valuable resource and provide superior coverage based upon the preliminary modeling performed by the IA Project Team.

As a wide area radio solution, this option has significant upside but a financial downside to consider since only Ocean City and Wildwood have UHF channels and subscriber units. The County Freeholder Board will be part of the decision process on how to re-use/re-allocate frequencies in a consolidated model.

Estimated cost of subscriber units is \$1,500-\$1,800 per unit as well as ongoing maintenance.

2.5.1.2 State Police 700/800 Radio System

The County has identified the State Police 700/800 system as an option for developing a county-wide radio solution. The State has identified several tower locations that would enhance its coverage that are located within Cape May County.

One option is for the County to become subscribers on the State Trunked system, which would allow the County to develop its own talk groups, in effect replicating its own 700/800 system. The primary challenge is the expense of subscriber equipment and the need for dual band radios in order to communicate with VHF users in the Fire Service. However, these costs may be offset by less expensive maintenance as support would come from the State Police for system troubleshooting, maintenance, and upgrades.

Estimated cost of 700/800 MHz subscriber units is \$3,000 per unit. Dual band radios that may be required by select Fire Chiefs for interoperability with other mutual aid fire agencies is \$6,000 per unit.

2.5.1.3 VHF Radio

The third option is to expand and re-design a wide area county VHF system, since most of the County is already on VHF. This alternative may provide least expensive in purchasing subscriber units, because all but two towns operate on this band; however, overall system maintenance and support would be required. Operating on this frequency band also allows for intra-county communications on a single band as all fire departments utilize VHF service as well. County-wide, there are more than 86 VHF channels that will undoubtedly yield some combination of pairs to serve as simulcast repeater pairs. These resources along with the lower cost of subscriber units make the VHF option a more likely configuration to consider.

2.5.2 Challenges to the Current System

The County Sheriff's identified the following challenges to county radio on the current system:

- Sporadic coverage as there are major dead spots throughout the county
- There is an in-car repeater system that works some days and doesn't work others, under the exact same conditions. It's a worry for operators and dispatchers due to the inconsistent service capabilities.
- Wildwood Convention Center does not carry the VHF signal although it will carry UHF
- Sheriff's Department has two cars with on-board repeaters. This has created an obstacle to communicating requiring coordination to turn the repeaters on and off.
- Sheriff can talk to some towns, cannot talk to others. The Department has been told it is a programming issue.
- Sheriff's Department has been told to transmit on VHF and receive on UHF, utilizing a "cross patch" through dispatch. This creates confusion as there are too many steps to use the system they already have; dispatcher should only have to key the microphone.

The following table summarizes the range of systems and capabilities within each PSAP:

- Six PSAPs have KML 911 Consoles, two have CML Consoles. A good number of these are past their useful life. One PSAP has Sentinel and one has a Zetron Console.
- Six PSAPs have Zetron Radio Consoles, two have Avatech Radio Consoles and two have Motorola Radio Consoles
- Six communities have Enforsys CAD/RMS; one has CODY and Firehouse; one has Lawsoft. Mapping system software outside of the 911 consoles is not used in eight of the twelve PSAPs. TRACKSTAR and THINK GIS are used respectively in two communities.

Capabilities	Avalon	Belleplain	Cape May City	Cape May County	Lower Twp	Middle Twp	Ocean City	Stone Harbor	Wildwood Crest	Wildwood
Computer Aided Dispatch (CAD)	Lawsoft Systems	Medical Dispatch	Enforsys CAD installed 1994	None	Enforsys	Enforsys Blue	CODY CAD and Firehouse	Enforsys Systems - 5 y/o	Enforsys Systems - Upgrading Spring 2013	Enforsys
RMS	Filemaker Pro - RMS		None	None	Enforsys	Enforsys Blue	CODY CAD and Firehouse	none	Enforsys Systems - Upgrading Spring 2013	Enforsys
Mapping	None	None	None	None	None, GIS for X-Streets	Trakstar	THINK GIS	none	none	none
E-911 Consoles	KML	Zetron	New KML 911 Console	Plant CML	KML 9 y/o	KML	Sentinel Patriot system	Plant CML 20y/o	17-year old KML	KML
Radio Consoles	Avatech Radio Console	Zetron	Zetron	Zetron	Zetron	Zetron	Zetron	Motorola Consoles	Avatech Radio Console updating	Motorola Centracomm Console
Recording Sys		Zetron				Eventide			NICE	

Table 2-11: Technology Summary at PSAPs

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2.5.3 Computer Aided Dispatch (CAD), Records Management (RMS) and Mapping

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Six of the twelve PSAPs operate on differing versions of ENFORSYS CAD/RMS system. At least one fire department operates on Firehouse – a fire CAD system that can integrate with several different CAD systems. Several of the PSAPs utilize their town GIS as the basis for their mapping systems; however, eight of the twelve PSAPs do not have an integrated mapping component that provides integration with CAD, vehicles, fire resources, and the caller. This last element is critical as it forms the major part of the foundation of the CAD subsystem and supports many elements of the RMS subsystem.

Going forward, these systems would be required to address local data information needs as well as integration requirements with the Federal Bureau of Investigation's National Incident Based Reporting System (NIBRS) and the U.S. Fire Administration's National Fire Incident Reporting System (NFIRS).

2.5.4 NG-911 Network and Customer Premises Equipment

Each of the six PSAPs that have recently purchased or have legacy KML equipment will not be able to upgrade further beyond the most up-to-date SmartDMS 911 consoles. Although these consoles provide basic ANI/ALI and call handling capabilities, it does not appear that they are Next Generation capable. Some may have believed that because these consoles can handle calls coming in over an IP connection (VoIP) that they are able to support the feature functionality of the NG consoles like the Patriot Sentinel or its newer counterpart, the Plant VESTA Sentinel 4.

Any of the PlantCML consoles may be upgradeable through a migration path to the newest Plant VESTA products. Each PSAP console will have to be individually evaluated for an appropriate upgrade strategy.

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2.6 Agency Interest in Consolidation

Surveys were provided to all PSAP management for their comments and insights with respect to four areas of regionalizing. Respondents were asked to comment on:

- The primary objections associated with regionalizing dispatch
- The perceived benefits resulting from a form of call answering/PSAP regionalization
- The form of organization that would be most acceptable for a regional model
- The configuration of a potential regional center

The responses with the greatest results are highlighted in yellow:

	Cape May County	Avalon	Belleplain	Cape May City	Lower Twp	Middle Twp	Ocean City	Stone Harbor	WW	WW Crest
Substantial Objections										
Residents don't want to change the status quo	x	x	x	X (Fire)	x		x			x
Dispatchers are not familiar with our town	x	x	x	x (Police)	x	x	x	x	x	x
No interest from local officials	x			X (Fire)		x	x (Fire)			
Concerns about dispatcher job loss					x	x		x	x	
Service levels will be negatively impacted			x		x	x				x
Control of communications will not be in local hands	x	x	x	x (Fire)	x	x	x	x		

Table 2-12: Primary Objections to Dispatch Consolidation

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The responses with the greatest results are highlighted in yellow:

	Cape May County	Avalon	Belleplain	Cape May City	Lower Twp	Middle Twp	Ocean City (Police and Fire)	Stone Harbor	WW	WW Crest
Benefits Resulting from Call Answering/PSAP Regionalization										
Standardized training	x	x		x	x		x	x		X (Fire)
Multiple dispatchers crossed trained to handle calls	x	x		x	x		x	x		x (Fire)
Improved level of service	x	x		x	x (for fire service)	x (for fire service)	x			x (Fire)
Better coordination of resources	x	x	x	x	x		x	x	x	
Cost Savings	x	x			x	x			x	
Dedicated fire/medical dispatchers		x						X (Fire)		X (Fire)
Standard operating procedures	x	x		x	x	x	x	x		
Communities would not have to maintain dispatch equipment	x		x		x	x				
State of the art facility	x				x	x			x	
Common records managements, so communities can share information more readily	x			x	x		x	x	x	
None of the above										X (Police)

Table 2-13: Primary Benefits to Dispatch Consolidation

The responses with the greatest results are highlighted in yellow:

	Cape May County	Avalon	Belleplain	Cape May City	Lower Twp	Middle Twp	Ocean City	Stone Harbor	Wild Wood	WW Crest
If your town were to regionalize, which of the following is most likely to be considered?										
Full Consolidation: Single Center with common management	x	X (Fire Service)	x		x	x		x (transition over time)	x	
Co-located consolidation: Multiple Centers transition to one physical location but remain separate operationally										
Shared Services/Virtual Consolidation: Maintain individual physical operations and share technology systems										
Partial Consolidation: Consolidation with agency's that offer similar operational, political, fiscal conditions.		x		x			x	x		x

Table 2-14: Acceptance of Various Consolidation Models

The responses with the greatest results are highlighted in yellow:

	Cape May County	Avalon	Belleplain	Cape May City	Lower Twp	Middle Twp	Ocean City	Stone Harbor	Wild Wood	WW Crest
Which would your town consider participating in?										
Existing Town-based regional dispatch (2, 3 towns or more)	x	x		x	x		x	x		x
Existing Independent regional dispatch (2,3 towns or more)			x							
Establish your 'own' independent or town based regional dispatch		x	x			x				

Table 2-15: Acceptance of Various Governance Models

The greatest objections to regionalizing can be summarized as a fear of change and are considered to be:

- Dispatchers would lose their familiarity with town geography, landmarks, and issues
- No interest from local officials

The greatest benefits to regionalizing were considered to be:

- Cross training of dispatch staff
- Better coordination of resources
- Development of standard operating procedures
- Improved service levels

In discussions with each town and agency, participants favored joining a two- or three-agency existing town-based dispatch that had the potential of expansion into a single site consolidated center as interested parties considered the options. The favored configuration was for a full consolidation of dispatch services organized under a single governance structure that would allow for a separation of police dispatch functions from that of fire/medical dispatch functions.

There are a core contingent of municipalities that have voiced interest in participating in a regional dispatch and without exception, every fire agency would like to see some form of

regionalized fire/medical dispatch. The exception to this last are the agencies currently served by Belleplain who prefer to continue the arrangement they are operating in today.

Lastly, governance and funding were of significant concern. These discussions with Cape May County first responders and others involved in the study yielded an understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions.

Much as the County led the way in developing a regional SWAT team, it may need to take a leadership position in developing the resources necessary for a successful regional dispatch center as well. However, it is largely held that the political environment within Cape May County has been the underlying reason why regionalizing has not gained sufficient traction and even greater concern that future discussions must address this condition in order to move on to more fruitful discussions.

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Volume III: Staffing Analysis

3.0 Overview: Staffing Analysis

The practice of studying regionalization of public safety services in New Jersey has evolved as has the acceptance of the feasibility of regionalized dispatch. The 'Home Rule' premise that each community is unique is slowly eroding. More recently, thoughtful consideration has been given to operational efficiencies, service enhancements, and economies to determine the impact and challenges of regionalizing first responder services.

3.1 Current Staffing Summary

Our findings show that the development of a regional PSAP and dispatch solution is not only feasible for Cape May County, but practical and necessary to meet the imminent future demands of communications and information sharing technologies. From our research and findings, we have identified the following:

- The majority of the responding agencies staff their primary PSAPs with one dispatcher, even in some of the resort towns on the Barrier Island. The others typically staff with two dispatchers.
- There were approximately 427,000 calls for service across Cape May County in 2012 supported by 59 full time and 40 part time telecommunicators (excluding Belleplain's 23 dispatchers). Of these calls, 75,000 were E911. Police CAD Events were logged for 305,000 of these calls for service, with Fire CAD estimated at 4,400 and EMS CAD estimated at 18,565.

There is an inherent risk factor in the 'single dispatcher model' used by several local police departments. This risk has been acceptable as no grave situation has emerged. The opportunity to regionalize the services as a means to more efficiently save lives and provide a more rapid and educated response should be considered with an eye toward changing the way emergency communications services are delivered in this day of 'doing more with less.'

3.2 Paradigm Shift: Regional Model versus Legacy Model

Emergency dispatch requires a paradigm shift from the legacy way of doing business to a more structured and refined model that offers *better service*:

- The regional model takes into account the efficiencies of multiple emergency calls handled by a staff of consistently trained telecommunicators.
 - The legacy model presumes that a single dispatcher is capable of handling the emergency calls as well as the town's business requests, permits, forms, and directions to residents as well as a full-spectrum of police-business activities while remaining proficient in the complexities of dispatching multiple agencies

- The regional model eliminates the local ‘risk’ factor of having a single dispatcher on duty by staffing to the ‘critical mass’ of emergency calls and a full complement of supervisory and support personnel to address the technology and business of dispatch.
 - The legacy model offers inherent risks to those Cape May County towns providing single telecommunicator services and accepts the possibility of delayed response or possibility of a dropped call due to workload or experience-related gaps.
- The regional model encourages towns to re-evaluate the support services previously thought to be ‘sacred cows’ and considered the domain of the dispatcher. This change-opportunity creates more efficient use of technology and existing personnel to improve services to residents and employees
 - The legacy model assumes a ‘why change if it isn’t broken’ mentality.

These contrasting positions are provided to make the point that a regional delivery model will offer substantially more service than the single dispatcher-PSAP model now in use. More compelling is that when combined with the inevitability of regionalized services as is the direction of New Jersey shared services and the financial comparisons, regionalized dispatch services become a ‘when’ not an ‘if’.

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3.3 Current Dispatch Staffing across Cape May County

Our staffing analysis is directly attributed to the data acquired during the on-site interviews, information provided by PSAPs in questionnaire responses, and documented in the Existing Condition summaries provided in Appendix B. The following is the staffing configuration for the PSAPs contemplating the regionalization of dispatch services within Cape May County.

Town/Agency	Supervisors	Full Time Dispatchers	Part Time Dispatchers	Shift Schedule	Desk Positions
Avalon	0	3	4	12-hour	2
Belleplaine *	3	23*	0	12-hour	3
Cape May City	0	3	4	12-hour	1
Cape May County ECC	1	7	0	8-hour	2
Lower Township	0	8	9	12-hour	3
Middle Township	0	9	3	12-hour	3
North Wildwood	0	4	4	10-hour	2
Ocean City	1	10	7	12-hour	4
Sea Isle City	0	3	0		2
Stone Harbor	0	3	4	12-hour	2
Wildwood	0	5	0	8-hour	2
Wildwood Crest	1 (Sergeant)	4	5	12-hour	2
Total (without Belleplaine)	3	59	40		25

Table 3-1: Staffing Summary

* Belleplaine's 23 dispatchers are primarily dedicated to the purpose of Belleplaine Ambulance Corps dispatch and "skew" the model when compared to the other PSAPs. For this reason, they are not included in subsequent totals and analysis.

We have identified the following as predominant characteristics of dispatch services and its staffing within the County:

- The use of dispatchers within a police PSAP to support both police and fire dispatch has resulted in operational inconsistencies depending upon training and experience levels of

dispatchers. Inconsistent service delivery between dispatchers, informal quality assurance oversight and in almost all cases, inadequate staffing levels and ancillary duties that are assigned to these staff further diminish the standard level of service that should be maintained as minimum criteria for the dispatch function.

- Dispatchers have developed a familiarity with law enforcement officers and are often not as familiar with the requirements or expectations of dispatching for fire/medical disciplines. This is largely due to the significant difference in police versus fire or medical events. This trend can be seen nationwide and is upheld in Cape May County where police dispatches may be as many as 91% to 9% fire/medical within a given community.
- A large number of tasks assigned to PSAP employees are considered non-emergency public services and public safety support tasks, which are outside the realm of traditional emergency communications functions, yet have become an integral operational aspect of managing local police departments.
- Clerical, administrative, technical, and dedicated supervisory or human resource staff is often part of the law enforcement command structure and not specifically available to support dispatch functions.
- Most of the dispatchers do not have their own dedicated supervisor but are managed within the law enforcement command structure, typically by a sergeant or captain.
- Current dispatch staff levels are well below APCO and NFPA standards that would require a minimum of two dispatchers in order to provide Emergency Medical Dispatch and must be able to answer 95% of all calls within 30 seconds and no call can exceed a 60 second response. Many of the resort communities are served by only one dispatcher on a shift, even during the peak summer season.
- A total of 59 full time (78 when Belleplaine is included) and 40 part time telecommunicators are currently providing emergency call answering and dispatch services to 17 communities and their agencies. Dispatchers are predominantly civilian (rather than sworn police officers), with low or little turn-over.

3.4 Current Salary Ranges and Titles

There was significant range in salary for each position but generally, staff from each PSAP fell into the middle range with few on either end of the spectrum, with Belleplaine salaries somewhat lower than the other PSAPs. Typical titles include Communications Officer, Public Safety Operator, or Telecommunicator. Current salary ranges for each full-time position are as follows:

- Communications Officer Trainee : \$18,720 - \$49,408
- Communications Officer/ Telecommunicator/Dispatcher: \$24,440 - \$59,248
- Senior Communications Officer/Senior Public Safety Telecomm: \$26,930 - \$50,592
- Public Safety Supervisor/Chief: \$29,168 - \$72,744

3.5 Call Volume Summary and Assumptions

	E911 Calls	Police CAD	Fire CAD	Medical CAD	Total Estimated CAD (CFS Incidents)	Total Call Volume (CAD Increased 1.3 for Admin.)
Cape May County ECC	1,261	0	0	0	0	1,261
Avalon	2,781	29,776	252	733	30,761	39,989
Belleplain	3,638	1,000	304	3,575	4,879	6,343
Cape May City	3,545	23,917	323*	1,149*	25,389	33,006
Lower Township	10,120	36,872	591	2,178	39,641	51,533
Middle Township	12,901	38,309	728	3,326	42,363	55,072
Ocean City	15,627	44,454	1,132*	4,017*	49,603	64,484
North Wildwood+	5,078	23,917	323	1,149	25,389	33,006
Sea Isle City+	2,875	20,354			20,354	26,460
Stone Harbor	957	12,809	109	201	13,119	17,055
Wildwood	12,472	48,927	411*	1,458*	50,796	66,035
Wildwood Crest	3,720	25,326	217	779	25,326	32,924
Total	74,975	305,661	4,390	18,565	327,620	427,167

Table 3-2: County Call Volumes 2012

* Wildwood Crest data from 2011, Sea Isle City from 2009, assumptions made to allocate total estimated CAD between Police, Fire, and Medical for North Wildwood, Sea Isle City, Ocean City.

- Data sources for E911 and CAD:
 - E911 call volume is from State of New Jersey OETS (Office of Emergency Telecommunications Services), based on ANI/ALI dips.
 - CAD data (for Police, Fire, and Medical dispatched incidents) is provided by the PSAPs, except for the two PSAPs shaded and marked with a (+), in which case CAD data is estimated. These two PSAPs (North Wildwood and Sea Isle City) did not provide detailed call volume data. For Sea Isle City, we utilized CAD data provided in a 2009 study. For North Wildwood, we estimated CAD data to be the same as for Cape May City; North Wildwood police estimated total call volume to be “in the 30,000 range.” Wildwood Crest CAD data is from 2011, while other PSAPs provided 2012 data.
 - Three PSAPs (Ocean City, Wildwood, and Cape May City) provided CAD data with Fire and Medical combined; as indicated with a (*), we calculated these breakouts based on the average of other Cape May PSAPs: 22% Fire and 78% Medical.
- Although most of the PSAPs provided Call for Service data from their CAD or records, almost none were able to provide data for administrative or non-emergency call volume, radio chatter, or a breakdown of wired versus wireless calls.
- During interviews, staff indicated that non-emergency calls increase significantly during the peak season, and that many calls answered by the PSAPs are informative in nature or requests for police services, rather than life-threatening emergencies; this is supported by the significantly higher quantity of CAD data with respect to 911 calls. To estimate a total

call volume for Cape May County, we used an industry standard of 1.3 times the total CAD events to model the total call volume.

- Based on these assumptions, the estimated total call volume, including emergency and administrative calls, handled by the twelve PSAPs is approximately 427,000.

	E911 High Month - 2011		E911 High Month - 2012		Mid-Season * (May or Sept High)		E911 Low Month - 2011		E911 Low Month - 2012	
		911		911	2011	2012		911		911
Cape May County ECC	Aug	138	Nov	246	78	160	Mar	27	Jan	19
Avalon	Jul	633	Aug	485	314	289	Feb	120	Jan	116
Belleplain	Aug	510	Jun	414	396	386	Feb	247	Feb	234
Cape May City	Jul	633	Aug	587	314	387	Feb	120	Feb	108
Lower Township	Jul	1,126	Aug	1,119	989	983	Feb	498	Feb	624
Middle Township	Jul	1,725	Aug	1,529	1251	1,205	Feb	848	Feb	759
Ocean City	Jul	2,351	Jul	2,099	1,219	1,651	Feb	635	Feb	700
North Wildwood	Jul	954	Jul	842	534	597	Mar	125	Mar	136
Sea Isle City	Jul	795	Aug	613	242	248	Mar	56	Mar	74
Stone Harbor	Jul	294	Aug	186	185	97	Dec	27	Feb	18
Wildwood	Jul	2,073	Jun	2060	1188	1418	Feb	402	Dec	464
Wildwood Crest	Aug	659	May	785	356	300	Dec	110	Dec	106
Monthly Total		11,891		10,965	7,066	7,721		3,215		3,358
Daily Average		396		366	236	257		107		112
Hourly Average		17		15	10	11		4		5

Table 3-3: Monthly E911 Call Volume – Highs and Lows over Two-Year Period

- E911 call volume data, broken out monthly, is from the State of New Jersey OETS (Office of Emergency Telecommunications Services), based on ANI/ALI dips.
- As expected for the Cape May County resort area, the highest volume of monthly E911 calls occurs during June through August. Mid season includes May and September. Low months are October through April.
- Peak 911 call volume spans a five month period. During 2012, 45,900 E911 calls were made during this five-month peak season. We estimate that non-911 call volume may be 3-5 times this figure during the peak season.
- Call volume drops significantly during the seven months “off-season,” especially January through March with nearly a 200% drop in volume in some cases.

3.6 Staffing Methodology

Total call volume will dictate the staffing requirements of a regional center. We have used several models that are widely accepted as standards to estimate staffing for a regional center including the APCO Project RETAINS model, which is an online staffing tool that auto-generates data as a guideline for how many staff are required for a given number of positions. We used a more empirical staffing methodology to estimate the required number of positions and staff based on call volume, as well as the ‘tried and true’ method of multiplying initial positions by a 4.2 person ‘fill factor’. The limitation of the APCO Project RETAINS is that it assumes a certain number of active call-taking or dispatching positions in order to generate sufficient staff rather than attempting to identify the actual number of staff required first. Despite nuances to each method we derived similar results for each.

Highlighted below is the empirical model as it best illustrates the staffing methodology used to arrive at estimated staffing for a regional center to support an estimated 427,000 calls. The same methodology for determining recommended staffing applies to both call takers and dispatchers. As shown in the table below, the model first estimates the available hours an employee is able to work over the course of a year, taking into account vacation, holiday, and sick time as well as training, break and meal time. Based upon typical human resource policies from Cape May County PSAPs, we estimate that a single employee is available to work 1,573 hours out of a possible 2,080 hours annually.

Item	Description	Number
A	Total Hours for one Full Time Employee (40x52)	2,080 hours
B	– Average vacation (2 weeks)	80 hours
C	– Average Sick Time (15 sick days)	120 hours
D	– Average Holidays (12 holidays)	96 hours
E	– Average training hours	16 hours
F	– Average meal and break time (0.75*260)	195 hours
G	<i>Total Unavailable Hours Annually (B-F)</i>	<i>507 hours</i>
H	Total Available Hours to Work	1,573

Table 3-4: Annual Available Work Time

In the next step of the process, the net hours are then divided into the number of calls received per year, based on the assumptions being modeled and adjusted for the average duration of each call and the percentage of time in each hour the employee is actually available to receive or dispatch calls. Appendix A shows the staffing calculations in the form of the following table completed for each of the models, based on call volumes:

1. Regional Fire/EMS Dispatch Center
2. County-Wide Regional Communications Center
3. Barrier Island/Mid-County Communications Center
4. Small Two-PSAP Consolidation

The next section of this report outlines the total staff assumptions and personnel budget estimates for each consolidation model.

Line	Element/Description	Call Taker 2 Minute Average		Winter Model Dispatcher 4 Minute Average		Summer Model Dispatcher 4 Minute Average	
		Total Call Volume		Dispatch 911 Volume		Dispatch CAD Volume	
	Workload	Total Call Volume		Dispatch 911 Volume		Dispatch CAD Volume	
A	Total Call Volume per Year	Based on Model		Based on Model		Based on Model	
B	Minutes per Call	2		4		4	
C	Calls Per Hour (60/B)	30		15		15	
D	Workload in Hours (A/C)	Calculated		Calculated		Calculated	
Employee Availability							
E	Net Available Work Hours (From Table 4 above)	1573		1573		1573	
F	Agent Occupancy Rate (Assumes available working time/half hour)	0.75	0.90	0.75	0.9	0.75	0.9
G	True Available hours per Person (E*F)	1180	1416	1180	1416	1179. 75	1415.7
Staff Needed							
H	FTE Base Estimate (D/G)	Per Model	Per Model	Per Model	Per Model	Per Model	Per Model
I	Turnover Rate (assumed to be 10%)	0.9	0.9	0.9	0.9	0.9	0.9
J	FTE's Required H* (1+(1-I))	Per Model	Per Model	Per Model	Per Model	Per Model	Per Model

Table 3-5: Empirical Staffing Model

We heard repeatedly during our interviews that Fire Chiefs believe that police-focused dispatchers do not have the experience to fully support fire personnel during a major incident and, in most cases, PSAPs are not staffed adequately to support a fire incident, especially since many of the PSAPs currently schedule only one dispatcher per shift, even during the busy summer season. Therefore, we have made the following assumptions relative to staffing:

- The call taking function will be a separately performed task from police or fire/EMS dispatch. In a regional consolidated model (assuming the transition of five PSAPs or

more), dispatch functions will be organized by specialized law-enforcement dispatchers and fire/EMS dispatchers.

- All 427,000 calls will first be answered by a call taker and then single button transferred to a dispatcher or the appropriate discipline or municipal department as required.
- Since we received CAD data only as an annual total and not broken out by month, we modeled two different assumptions to reflect seasonality for dispatch scenarios:
 1. To capture “high season” call volumes (June – August), we assumed all calls entered into CAD require the involvement of a dispatcher and will be processed by both a call taker and dispatcher. Since police are dispatched to all calls, including fire and EMS, we used the 306,000 total Police CAD incidents to avoid double counting.
 2. To capture “low season” (October – March) call volumes, we assumed only the 75,000 E911 calls are considered emergency in nature and will be processed by both a call taker and dispatcher. We base this on an assumption of a significant decrease in administrative calls during the off season.
- We prepared the budgetary estimates to staff the Regional Communications Center with a mix of full-time and part-time personnel based on the high season call volumes but with the goal of minimizing the part-time seasonal staff. Some adjustments may be required based on actual operations and requirements.
- We have assumed that the initial call answering process, on average, will take no longer than 2 minutes, which is based upon an assumption that almost 100% of calls are answered within the first ten seconds thus leaving the call taker approximately 110 seconds to assess and process calls accordingly by either passing a call to a dispatcher, transferring the caller to another municipal agency, or providing the necessary information to the caller for them to disconnect.
- The processing of dispatched calls was modeled based upon dispatches being completed within four, six, or eight minutes using the *NFPA 1221 Paragraph 6.4.3: “Ninety-five percent of emergency dispatching shall be completed within 60 seconds.”* This standard does not include any language regarding follow up time that may still be required by the dispatcher. We calculated staffing scenarios based on four-minute dispatch time for the Regional Center and eight-minute dispatch time for the Regional Fire Center.
- Calculations assumed a 12-hour shift with four different squads/shifts per week. There will be minimal impact if the County deploys different shift configurations (8 hours or 10 hours).
- Not surprisingly, based upon busy hour data provided by the PSAPs, Friday and Saturday are overwhelmingly the busy days. The “busy hour” varies significantly by town, from 7-8 AM, 8-10 AM, 1:30-3:00 PM, and 6:00 PM-2:00 AM each being listed by different PSAPs as the busy hour. We have not developed actual staffing schedules

(overlapping or power shifts); this will be determined based on actual operations and call analysis within the regionalized center.

3.7 Training Requirements

The Advisory Board will need to assess each current or prospective employee's knowledge, skills, and abilities in order to tailor specific functions and training to each applicant's job skills. This assessment also helps to assure that the emergency communications center is able to sustain its operation independently from external sources using time and funds as efficiently and effectively as possible.

Professional organizations such as APCO have established specialized standards and curricula for public safety communicators. APCO's Project 33 Revised, Minimum Training Standards for Public Safety Telecommunicators, has produced the National Public Safety Telecommunicator Training Standard, the foundation document for these purposes. For instance, APCO offers these courses among others:

- Public Safety Telecommunicator I
- Communications Center Supervisor
- EMD Concepts
- Fire Service Communications

Options may exist within the region to take advantage of training offered locally that would greatly contribute to the efficiency and effectiveness of regional training of dispatch staff and in the process increase the regional exchange of information between dispatchers while minimizing the overall cost of training.

3.8 Public Safety and Service Support Tasks

Across Cape May County, dispatchers support the emergency communications dispatch function as well as a host of other non-emergency, public safety support, municipal, and public service support tasks as identified in the Existing Conditions Summary.

Continued employment for staff has been a strong point of discussion among the project stakeholders, as there is a desire that there will be available positions in a regional center for current staff interested in transitioning to a consolidated center. The current staffing configuration and organizational structure provides little career advancement, quality assurance and training, supervisory oversight, or technology support for the dispatch function within the local PSAPs. In this sense, and depending upon the strengths, skills, and tasks required in the regional center, most if not all staff could be transitioned eventually to support various activities both within the regional center and perhaps to support municipal activities that were once the domain of individual police departments to support.

In this capacity it will be important for each community and the County's Advisory Board to commit to working through the issues regarding the local public service/public safety tasks as they impact each community and relative to the future tasks that will be supported within the regional center. Each community will need to make its own decisions about how to address functions that its dispatchers may now perform in addition to their dispatching duties,

including such tasks as the reception of visitors, monitoring video surveillance, or various other administrative support tasks.

For the purposes of this project, we are proposing that the following tasks be part of the regional center’s services versus those that we propose should be handled locally, although a more definitive and collaborative process should be used to engage community, stakeholders and where appropriate, collective-bargaining units to determine specific operations and functional impact of transitioning employees and retaining services locally.

Dispatcher Services and Tasks	
Emergency Dispatch Tasks (911)	
911 Call Answering	x
Provide EMD	x
Police Dispatch	x
Fire Dispatch (tone and radio)	x
Medical Dispatch	x
Ambulance Call Out to surrounding Towns	x

Non-Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	x
After hours pick-up/drop off for money and possessions	Handled locally
Walk-in Requests for advice/information/complaints/directions	Handled locally
Walk-ins with lost/stray dogs; Process related fees	Handled locally
Safe Haven	Handled locally
Provide keys for elevator and building access	Handled locally
Maintain Parks and Recreation Permits	Handled locally
Provide applications/complete information for pistol permits	Handled locally
Provide change of address stickers	Handled locally
Monitor court ordered child exchange (custody)	Handled locally
Assign officers to work vacancies	Handled locally
Assignment of crossing guard posts	Handled locally

Routine Public Safety Tasks	
Request assistance of Highway/local DPW	x
Request mutual aid/special services	x
Request wrecker assistance	x
Request wildlife removal	x
Walk-in Requests for Medical Assistance	Handled locally
Monitor prisoners in holding cells and booking area	x
Assist in prisoner evacuation in case of emergency	Handled locally
Process fingerprinting/fees	Handled locally
NCIC lookups/Background checks/Data entry	x
Enter warrants/restraining orders	Handled locally
File Protective Orders	Handled locally
Monitoring of CCTV images from community-based cameras	x (TBD)

Table 3-6: Proposed Local versus Regional Tasks

**Volume IV: Consolidation Models
& Budget Analysis**

4.0: Overview: Consolidation Models and Budget Analysis

Our research identified the following models for dispatch regionalization across Cape May County:

- Regional Fire/EMS Dispatch Center
- County-Wide Regional Communications Center
- Barrier Island/Mid-County Communications Center
- Multiple “mini-consolidations” – we modeled a small Two-PSAP Consolidation

The staffing models and budgetary estimates for each of these models are discussed in this section of this report.

4.1 Consolidation Models and Summary of Analysis

We believe the most feasible alternative for Cape May County to pursue initially is a partial consolidation of communities who have expressed the most interest or willingness to move into a regional environment, expressed as the Barrier Island/Mid-County Communications Center. We recommend this model be staffed with dedicated call-takers, a dedicated fire/EMS dispatcher, and dedicated police dispatchers. The center would have a full complement of technical and administrative management and staff sufficient to provide initial start-up and ongoing support. It is anticipated that non-emergency calls will also be answered by telecommunicators in a regional center. The Regional Center’s call takers would answer local police calls and then either dispatch those needing assistance or transfer administrative requests back to the respective local department. Each community will need to make its own decisions about how to address functions that its dispatchers may now perform in addition to their dispatching duties. This may include reception of visitors, giving information and directions to tourists and residents, monitoring video surveillance, or performing various administrative support tasks.

The financial justification supports the regional dispatch model for Cape May County. In aggregate, Cape May County communities spend over \$6.5 million to staff 12 PSAPs, based upon budgetary data provided by each agency. All the models show significant savings over a multi-year period. For example, the single-site County-wide consolidation model shows a cumulative savings over \$16 million within the first five years. The partial consolidation model of seven PSAPs across the Barrier Island/Mid-County region shows a cumulative savings of \$7 million within the first five years.

At the outset of this project there was significant interest in having representative models presented for the purpose of robust discussion regarding the options the County and local PSAPs have regarding regional dispatch. Our criteria for developing the models in this section reflect the various input received during our initial data gathering. Our team explored a partial consolidation for a standalone fire/EMS dispatch center; a model for barrier island and mainland communities that offers staffing support to address the seasonal nature of Cape May while maintaining a consistent and trained workforce during the slower winter months; a two-PSAP consolidation and a full-county deployment to illustrate the financial impact this would have on

Cape May communities. The analyses of these models in addition to configurations that provide a more sustainable benefit are explained in this section.

4.2 Current Dispatch Budgets in Cape May County

The combined expense budget from 2012 for emergency communications and dispatch services across Cape May County is \$6.5M.

Salaries and Wages	2012 Budget
Full time dispatchers	\$2,547,952
Overtime for dispatchers	\$200,000
Part time dispatchers	\$164,456
Part Time Overtime	\$3,108
Police time for Dispatch	\$36,500
Sub-Total Salaries/Wages:	\$2,955,853
Benefits	2012 Budget
Sub-Total Fringe Benefits:	\$1,069,157
Sum: Total Employee Costs	\$4,021,902
Capital Equipment and Interlocal Agreements	
Sub-total: Capital and Equipment Expense:	\$1,034,393
ADD IN DISPATCH AGREEMENTS FOR:	
Dennis	\$126,809
Woodbine	\$49,259
Upper Township	\$217,720
West Wildwood	\$38,000
ESTIMATED DISPATCH BUDGET: CAPE MAY CITY:	\$300,000
North Wildwood	\$500,000
Sea Isle City	\$250,000
Subtotal:	\$1,481,788
Total	\$6,538,083

Table 4-1: Current Consolidated Budget

*Data regarding local budgets from North Wildwood, Sea Isle and Cape May City were not made available for this study and are included as estimates only.

We have found there is a correlation between dispatch budgets in general and the call volume/traffic supported within a PSAP. As a general rule, there is no 'best' way to estimate or achieve the most effective economic mix of traffic and cost. However, when comparing the ranges over communities, it becomes apparent when costs of service become excessive. For example, the County received 1,261 overflow 911 calls to its Communications Center. Using this metric alone, the cost per call to the County to support those calls is \$601 per call as compared to the equivalent comparison in Avalon or Cape May City whose cost per call averages \$9. The full set of data is shown in the table below.

PSAP Agency	Total Incidents Processed by each Agency	% of Total Volume	Total Budget 2012	Cost per Incident (Calls/Budget)
Avalon	39,989	9.38%	\$382,324	\$9.56
Cape May City	33,006	7.75%	\$300,000	\$9.09
Cape May County	1,261	.30%	\$757,928	\$601.05
Dennis Township (Fire Only)	3,171	.74%	\$126,809	\$39.99
Lower Township	51,533	12.10%	\$681,307	\$13.22
Middle Township	55,072	12.92%	\$662,629	\$12.03
North Wildwood	33,006	7.74%	\$500,000	\$15.15
Ocean City	64,484	15.14%	\$930,446	\$14.43
Sea Isle City	26,460	6.21%	\$250,000	\$9.45
Stone Harbor	17,055	4.0%	\$574,603	\$33.69
Upper Township (fire/EMS)	1,484	.35%	\$217,720	\$146.71
West Wildwood	500	.12%	\$38,000	\$76
Wildwood	66,035	15%	\$579,012	\$8.77
Wildwood Crest	32,924	7.73%	\$448,046	\$14.82
Woodbine	3,171	.74%	\$49,259	\$15.53
Total	427,666		\$6,538,083	

Table 4-2: Cost per Call – Total Budget to Total Call Volume

Dispatch salaries and benefits account for about 70% of the total cost of dispatch. We have included communities now paying for call answering and dispatch services by others, which contribute to the total cost of dispatch within the County. These varying arrangements result in a total current budget of \$6,538,083.

4.3 Potential Options for Regional Consolidation

The following are consolidation options that are generally accepted for useful practice and the benefits and challenges associated with each.

4.3.1 Single Site, Full Consolidation

In this scenario, all existing dispatch services are moved to a single dispatch center with a single management structure. A consolidated center requires multiple PSAPs to be brought together under one management team with common operating platforms. Full consolidation requires an initial investment in infrastructure, operations, and facilities. However, it typically provides the greatest long-term cost savings and operational benefits. Additional benefits are considered to be:

- Common utilities for a lower cost of service
- Cross-trained and career-path for telecommunicators
- Greater personnel efficiency in supporting total call volumes
- Dedicated resources for fire and medical dispatch
- Full time focus on emergency services communications
- Better interagency information sharing
- Elimination of duplicated services especially among low call volume communities
- Opportunities to pool financial resources to fund system upgrades
- Increased ability to communicate between agencies
- Potentially, a more cost effective overall solution

This model was given considerable support by participating Cape May County agencies and it has shown itself to be the most financially viable option.

4.3.2 Co-Located Consolidation

In this scenario, multiple dispatch centers are moved to the same physical location, but maintain separate operations. Given the overall cost structure of maintaining a single center and the overwhelming cost share of personnel, it would be a redundant and duplicative use of resources to establish a model that did not streamline and enhance personnel efficiency across all communities. Further, the benefit this model offers is the ability to share technologies and building facilities that are already provided for in a single center. Based upon these points, we did not pursue a greater analysis of this model.

4.3.3 Technology Consolidation

This scenario focuses on the underlying technology that provides the critical operating systems within a dispatch center and includes CAD, 911 Customer Premise Equipment (CPE), Automatic Number Identification / Automatic Location Identification (ANI/ALI), logging recording, Geographic Information System (GIS) mapping, and possibly Record Management System (RMS) and regional radio systems. At this time, there are few options to consider with respect to establishing county or even multi-PSAP regions as the technology required to support the option is simply not available in the County. Further, and perhaps of even greater import, a technology consolidation presumes substantial coordination at the governance level to allow for remote management of events while operating with differing organizations and structures. Cape May County PSAPs have not had the opportunity to coordinate among themselves to establish common

governance, procedures, and protocols that are the foundation for a solid technology consolidation. In addition to strong governance, substantial investment in the following areas would be required:

- CAD/RMS Systems – there are several high end systems that are able to provide the robust, multi-PSAP functionality that would be a great asset to a technology consolidation. Each PSAP would need to function from a single CAD/RMS system and be able to see each other's incidents as they are updated and have the ability to 'transfer' the incident to any other PSAP for processing/response.
- 911 Trunking and Equipment – PSAPs would need to be able to have emergency calls 'roll' to them for action and response regardless of where the call was originating. Transferring calls back to another PSAP for response as in the role of Cape May County dispatchers today would not improve efficiency.
- County-wide GIS, Mapping and AVL – A technology consolidation assumes the use of a broad set of tools that enable dispatchers outside of the originating caller's town to have a visual indicator of resources, updated mapping, and integrated/automated means of communicating the location identification of the caller along with any relevant data to responding units within the community.
- Radio Communications – Interoperable county-wide radio communications must be implemented into each PSAP participating in the technology consolidation. This could be a common dispatch channel (s) and county-wide coverage on a selected frequency band. This will also require the use of a common frequency band or multi-band radios for all first responders.
- Connectivity – Each of these systems will require broadband connectivity to each other and survivable systems so that if any one element of this consolidated technology environment were to be out of service, it would not impact the other elements.

For these reasons, we do not believe the County is prepared to invest in a technology consolidation at this time.

4.3.4 Partial Consolidation

This model is often used when considering regionalization of dispatch in an environment that includes a fairly large and established PSAP. In this case, it could be considered that the Cape May County Communications Center becomes the focal point of coordination and consolidation for the communities that wish to regionalize their dispatch services. This will allow for greater operational, technological, and functional efficiencies that come from bringing procedural consistency and communication across PSAPs operating under a single management and operational philosophy. Several other benefits derived through a partial consolidation are similar to the benefits of a single consolidation:

- Substantially enhanced emergency services for all agencies participating
- Full-time focus on emergency communications function
- Consistent radio communications and CAD integration for participating communities

- Better interagency information sharing
- Elimination of duplicated services, especially among low call volume communities
- Opportunities to pool financial resources to fund system upgrades
- Increased ability to communicate between agencies

This model also received support as a ‘means to an end’ so that those that wished to consolidate could begin the process while establishing the core for those that wish to join at a future date.

4.3.5 Cape May County Models for Regional Call Taking and Dispatch

As highlighted above, there are several configurations that could result in a regionalized dispatch service. We analyzed the following alternatives, which are based upon feedback received during our preliminary data gathering:

- A single county-wide communications dispatch center that can support the nuances and variations required of police, fire, and medical dispatch. Although we understand it may be unlikely for several communities, including Ocean City, to participate in the full county model, we have included the data and system requirements to support a full transition.
- A ‘barrier island-type’ center that would be capable of supporting the seasonal peaks and resort-type environment experienced during the summer months. This center would include communities who have established ‘natural partnerships’ in geographic proximity to enhance operations and exchange of information. While we understand the natural tendency to group like communities together, the call volumes for a ‘barrier island’ center are not substantial enough as compared to model that includes a mix of barrier island and mainland communities. We modeled a joint barrier island and mainland group to highlight this configuration so that a more balanced staffing model could be considered – one could adjust for the seasonality of the summer months without tremendously impacting the staffing of the center, as modeled in the detailed staffing analysis in Appendix A.
- Small geographically similar clusters of existing PSAPs that could introduce the concept of multi-discipline, regional dispatch to their communities and in the future seek to participate in a larger initiative. We modeled a two-PSAP consolidation.

Each of these scenarios includes:

- Cost of county-wide radio to enhance the current level of interoperability between agencies whether or not they participate in a regional dispatch center. These costs are NOT included for the small two-PSAP model; however, a radio upgrade has been included for this smaller model.
- Full county-wide connectivity via microwave for voice and data communications and connectivity to a hot backup center.
- CAD/RMS integration of existing database systems. Initial integration costs have been identified; however, CAD/RMS systems will require deeper evaluation in order to determine the full range of usefulness in a regional setting.
- Dispatch equipment, furniture, and staff for a self-sufficient dispatch communications environment.

- Back-up center provisions including furniture, consoles, radio, and microwave connectivity.
- Renovations to an existing municipal or county facility as an independent self-supporting environment.
- Sufficient organizational oversight and support for an independently managed functional center. The consolidation of two PSAPs does not include this provision.

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4.4 Model 1: Regional Fire/EMS Dispatch Center

A single regional fire/EMS dispatch center, modeled on the example set by Burlington County when it was first embarking on regionalized dispatch, may be a feasible option. We understand that the Cape May County Fire Chiefs' Association has unanimously endorsed this type of arrangement since it promises substantial benefit to fire/EMS service.

Without exception, the Fire Departments that we spoke to believe a consolidated emergency communications center with staff dedicated to fire/EMS incidents would provide improved services, procedural efficiency, and operational value to fire and medical agencies over the current method.

As acknowledged during our initial meetings with dispatchers and police, fire dispatch service requires very different skill sets from law enforcement dispatch, as well as a more detailed understanding of fire/EMS practices. Fire Chiefs believe that police-focused dispatchers do not have the experience to fully support fire personnel during a major incident and, in most cases, are not staffed adequately to support a fire incident. Despite the conscientiousness of dispatchers across Cape May County, the relative low volume of calls, minimal dispatch staffing, and limited training in fire incidents and knowledge of fire/EMS procedures makes it difficult to provide the information the fire service needs to respond most effectively. This may be the result of the frequency of fire calls rather than a specific lack of training.

Notwithstanding the additional costs, this model has been used around the country very effectively and is currently being used in the following regions, including New Jersey:

- California: The Sacramento Regional Fire/EMS Communications Center (SRFECC) is the third largest fire dispatch center in the State of California, dispatching over 150,000 incidents annually. SRFECC is organized as a Joint Powers Authority (JPA) and is supported by fire agencies it serves. SRFECC Dispatchers are represented by Local 856. Together with these agencies, SRFECC provides fire protection and emergency medical service (EMS) dispatching for nearly all of Sacramento County and parts of Placer County covering over 1,000 square miles and serving over 1.3 million residents.
- Arizona: Phoenix Fire Department Regional Dispatch Center (PFDRDC) provides fire and emergency medical dispatching services for 20 jurisdictions directly and 3 entities indirectly. This covers over 2,000 square miles within Maricopa County. PFDRDC dispatched 327,000 calls for service and answered an estimated 1.3 million telephone calls in 2005.
- New Jersey: North Hudson Regional Fire and Rescue (NHRFR) provides fire protection and medical assistance through a regionalized fire/EMS department and dispatch communications center to the North Hudson communities of North Bergen, Union City, Weehawken, West New York, and Guttenberg. The fire department serves a population of over 195,000 people.

4.4.1 Belleplain Regional Fire Dispatch

One method of gaining buy-in for a regional communications and dispatch center is to establish a Regional Fire Dispatch function or join an existing one. This model exists within Cape May County: the Belleplain Emergency Corp Dispatch Center. The Center, which operates under the governance of a 501-C3 corporation with its own independent management and reporting structure, currently provides fire dispatch services to the towns of Dennis and Woodbine in addition to providing medical transport to a host of other communities both within and outside of Cape May County.

This may be an immediate solution for Fire Departments that wish to transition to this type of environment. Although 911 efficiencies overall may not improve, the fire/EMS dispatch operations should see a marked difference in incident management, status, and communications resulting in improvements in service delivery of fire and medical services using dedicated fire/EMS telecommunicators.

This configuration presumes that the existing 12 PSAPs will continue to function in their current capacity as the primary PSAP for their towns. Each will continue to receive 911 calls and would then transfer fire/EMS calls to the Belleplain Center for triage and dispatch. In theory this practice also offers benefits to police departments, since telecommunicators can focus on the specifics of police dispatch functions with which they are more familiar and through technology coordinate the delivery of services to residents through a separate regional fire dispatch center.

Although this model may offer the fire service the coordinated support of trained, dedicated resources, it does require significant coordination and knowledge of each PSAP as well as complex technology coordination in order for dispatchers to 'push' the call and relevant CAD data out to the regional fire dispatch center. It will also require coordination with an independent management and organizational team since the Belleplain Dispatch Center does not operate under the same municipal direction as the municipal PSAPs. Dispatchers within both the local PSAP and the Regional Fire Center must also be able to coordinate activity and arrival times.

Belleplain currently provides these services to Dennis and Woodbine Fire and First Aid and, by extension, could become the Regional Fire Dispatch Center for Cape May County. This model would require a tight governance structure with well-coordinated procedures, systems, and functions for a seamless operation. Further discussion with the Belleplain Management Team should be considered to determine if this is truly an option. The key issues will be:

- The impact to local services and current operations in each community
- Belleplain's management philosophy as an independent entity
- Belleplain's capabilities and desire to address the larger regional needs beyond that of the communities it now serves.

We estimated the number of additional dispatchers that would be required to sustain the fire/EMS volumes of Cape May communities. In 2012, there were 22,955 recorded fire/EMS events across the County, which when calculated against the empirical staffing model results in the need for three dispatchers. We realize this empirical result cannot be sustained and have

assumed eight dispatchers in addition to Belleplains existing staff. The result is a configuration that is operationally beneficial to the fire agencies but financially redundant, as existing staff within each of the PSAPs would still be required to answer primary 911 calls and then transfer requests for fire/medical service to Belleplains. Each community would be responsible for its current budget plus the shared expense of the additional dispatch staff, technology, and radio integration and upgrades, RMS, and network connectivity at Belleplains.

Benefits	Challenges
Telecommunicator staff will be increased to support additional work load	Requires reallocation/reassessment of resources by Belleplains management team
Current building has sufficient space to support 4-6 additional positions	Building is not hardened and may require a facility infrastructure assessment to support the technology and systems needs of additional communities for fire/EMS dispatch
Fire Service will see significant improvement in operational efficiencies and communications between dispatch and incident command; buy-in to this model may be easier than other models	Financial efficiency is limited; overall 911 efficiencies may not be as apparent as there are still 12 PSAPs answering for individual communities; no immediate efficiencies for E911 call answering or Police dispatch
Organizationally, Belleplains Dispatch is an independent private, not-for-profit corporation; as an unaffiliated entity it is less likely to have political ties that could compromise the direction of dedicated fire/EMS dispatch	The same organizational structure that offers independence and dedicated support is also a liability as the County is a 'customer' with little control or authority over an independent, private enterprise.

Table 4-3: Summary of Benefits and Challenges for Regional Fire Dispatch

In addition to dispatcher staff, Belleplains may require other support staff for administrative, technology, and human resource services. These estimates would require specific data from Belleplains that is not available for this scope of work. As an estimate, a separate regional fire dispatch would cost approximately \$1 million in addition to current budgets.

We believe that a regional fire dispatch center alternative, while functionally appealing, would be difficult to obtain financial support from stakeholders. The conceptual budget below highlights the major cost areas.

Estimated Cost of Dispatch Including Benefits (8 full time dispatchers)	\$445,220
Other Expenses	
Subtotal: Capital and Other Expenses	\$549,359
Estimated Total Expense for Regional Fire/EMS Dispatch	\$994,579

Table 4-4: Estimated Budget for Regional Fire Dispatch Center at Belleplains

4.5 Model 2: Single Site Consolidated Regional Center

4.5.1 Full County Consolidated Center Budgetary Estimate

The following budget analysis is based upon a single site with full consolidation by all participating agencies over a logical transition period. The staffing analysis based on call volume is included in Appendix A. Estimated budgetary estimates are indicated in the table below based on the proposed staffing, the cost of a county-wide radio system, facility renovations, and other expenses. The table on the following page shows the estimated net cash flows over the first five years of operation in comparison to ongoing operations of 12 PSAPs.

Budgetary Estimate: Full County Communications and Dispatch Center

Staffing Titles	Quantity	Avg. Salary	Benefits	Extended Total
Director Emergency Comm.	1	129,000	\$42,570	171,570
Dispatch Supervisors	4	61,960	\$20,447	329,625
Admin/Clerical Support Managers	1	45,900	\$15,147	61,047
Admin/Clerical Support	2	37,900	\$12,507	100,814
Network and Technology	2	60,000	\$19,800	159,600
Facility Support	1	58,000	\$19,140	77,140
Quality Assurance and Training	1	46,300	\$15,279	61,579
Sr. Dispatchers/Call takers	21	41,844	\$13,809	1,168,703
Part Time Staff	9	13,080		117,720
Subtotal: Total Staff	42			\$2,247,797
Facility Renovation	6,000 sq. ft.	\$450/sq. ft.		\$2,700,000
Capital Equipment:*				
▪ County-Wide Radio Upgrade				\$1,478,325
Other Capital Equipment:*				
▪ Microwave Network				
▪ 8-Position Dispatch Center				
▪ Back-up Site				
▪ CAD/RMS Integration				\$1,106,000
Other Expense				\$400,000
Total Budgetary Estimate:				\$7,532,122

Table 4-5: Budgetary Estimate for Full County Communications and Dispatch Center

* Refer to Section VI "Technology, Operations & Facilities" for details on Capital Equipment Budget estimates

4.5.2 Full County Consolidated Center Proposed Cash Flows

Cape May County plans on amortizing the \$1.48 million cost of the radio system over five years and the \$2.7 million cost of facility renovations over 15 years. The table on the next page assumes an ongoing operating budget to include maintenance for radio, microwave, ongoing CAD integration, personnel, and other operational expense. The analysis does not factor in cost of living or inflationary increases, which would occur equally in either the current environment or a single dispatch center environment. In a single center consolidated environment, Cape May County would see five-year cumulative savings of \$16 million dollars.

Proposed Cash Flows	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Radio Upgrade (5 Years)	\$295,665	\$295,665	\$295,665	\$295,665	\$295,665
Renovation/New Construction (15 years)	\$180,000	\$180,000	\$180,000	\$180,000	\$180,000
Annual Operating Expenses	\$3,471,802	\$2,674,452	\$2,674,452	\$2,674,452	\$2,674,452
Total Proposed Cost of Dispatch	\$3,947,467	\$3,150,117	\$3,150,117	\$3,150,117	\$3,150,117
Current Cost of Dispatch	\$6,538,083	\$6,538,083	\$6,538,083	\$6,538,083	\$6,538,083
Savings/Costs	\$2,590,616	\$3,387,966	\$3,387,966	\$3,387,966	\$3,387,966
Five-year cumulative savings	\$16,142,482				

Table 4-6: Five-Year Cash Flows for Full-County Model

After the initial investment year, subsequent years within the Regional Center result in almost \$3.4 million of savings each year. In fact, if one were to consider the long term view, there are *significant savings* resulting in \$16 million over the five years.

4.5.3 Key Assumptions of Full County Consolidated Center

The proposed regional configuration budget above includes full 911 call answering and emergency dispatch as well as the broad range of non-emergency calls in support of a fully functional and operational center to meet the emergency and non-emergency calls of Cape May County's first responders and municipal communications services for both winter and summer seasons.

We estimated the non-emergency call volume to be 30% higher than the CAD incident volume, resulting in approximately 427,000 calls and police-initiated incidents requiring call taker or dispatcher activity. The regional center must be capable of handling all conditions from day one.

We also took into account the seasonal nature of emergency communications/non-emergency call volumes within the county by maximizing staffing with a substantial complement of full time staff and working supervisors augmented with a smaller part-time staff. This is to allow for a more consistent delivery of service experience and to minimize the challenges that come from part time staff. Part time support can be utilized in the 'regular' schedule as either swing shifts or fill-in. The detailed staffing model and analyses is included in Appendix A. The following towns are included in this consolidated model:

- Avalon
- Cape May City
- Cape May County
- Lower Township
- Middle Township
- North Wildwood
- Ocean City
- Sea Isle City
- Stone Harbor
- Wildwood/West Wildwood
- Wildwood Crest
- Upper Township Fire Department

Several of these communities have expressed a complete lack of interest in participating in a regional dispatch center for a variety of reasons. We acknowledge the concerns; however, it is

important to provide a complete picture of what a county-wide regional operation may cost and the associated impacts.

Budget expenses include the following items:

- Full time call taker/dispatch staff of 21; 4 full time supervisors; full time Quality Assurance and training support; 9 dedicated part time staff. Associated support staff and Center Director are included in staff.
- New county-wide interoperable radio communications system capable of providing county-wide coverage using a wide area, simulcast approach on the VHF frequency band.
- County-wide microwave connectivity on three existing towers using the existing 11 GHz microwave infrastructure as the basis of coverage.
- County-wide budget includes a fully equipped 8 position dispatch center configuration with a full complement of radio, NG-911 consoles, and ergonomic furniture stations.
- County-wide budget assumes renovation of a 6,000 square foot space to support 8 dispatch positions and full center staff of 42.
- The budget (following year 1) includes line item expenses for CAD, radio, and microwave network maintenance that will be required during the life of the systems. Any additional CAD/RMS procurements or database systems for support staff are not included.

4.5.4 Operational Impact

- Common utilities for a lower cost of service
- Cross-trained and career path for telecommunicators
- Greater personnel efficiency in supporting total call volumes
- Dedicated resources for fire and medical dispatch
- Full time focus on emergency services communications
- Better interagency information sharing
- Elimination of duplicated services especially among low call volume communities
- Opportunities to pool financial resources to fund system upgrades
- Increased ability to communicate between agencies
- Potentially, a more cost effective overall solution

4.5.5. Financial Impact

- Based upon the assumptions, costs include substantial capital procurements and renovation costs that may require separate funding streams. The budget assumes pay back for these upfront costs will be spread over multiple years.
- There is a clear savings over current expenditures.
- These expenses are inclusive of a new county-wide radio communications system that provides interoperable communications. Local radio communications systems may require upgrading or migration to the county system at local expense.

4.6 Model 3: Partial Consolidation – ‘Barrier Island/Mid-County Center’

There has been significant discussion among stakeholders participating in this study regarding the like-minded nature of the barrier island communities. This perspective is driven by the resort-like environment of these towns during the summer months when emergency call volumes and non-emergency calls peak. In as much as these communities see substantial increases in traffic, their combined volumes are not enough to justify a ‘barrier island only’ center. Combined with the risks associated with maintaining a mission critical facility at a shore facing town in the aftermath of Super Storm Sandy, this makes it questionable as to the long term viability of a ‘barrier island’ center.

For these reasons, we have combined the following towns as a proxy for a ‘barrier island/mid-county’ center. These communities have all expressed interest at some point in the process to either participate in or strongly consider a regional dispatch environment either between themselves or with a larger subset of the Cape May towns:

- Cape May County
- Cape May City
- Lower Township
- Middle Township
- Wildwood/West Wildwood
- Avalon
- Stone Harbor

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4.6.1 Barrier Island/Mid-County Center Budgetary Estimate

Estimated budgetary estimates are indicated in the table below based on the proposed staffing, the cost of an upgraded radio system, facility renovations, and other expenses. .

Budgetary Estimate: Barrier Island/Mid-County Communications and Dispatch Center				
Staffing Titles	Quantity	Avg. Salary	Benefits	Extended Total
Management: Director Emergency Comm.	1	129,000	\$42,570	171,570
Dispatch Supervisors	4	61,960	\$20,447	329,625
Admin. / Clerical Support Supv	1	45,900	\$15,147	61,047
Admin/Clerical Support	1	37,900	\$12,507	50,407
Network and Technology	1	60,000	\$19,800	79,800
Facility Support	1	58,000	\$19,140	77,140
Quality Assurance and Training	1	46,300	\$15,279	61,579
Sr. Dispatchers/Call takers	13	41,844	\$13,809	723,483
Part Time Staff	8	13,080		104,640
Total Staff	31			\$1,659,290
Facility Renovation	6,000 sq. ft.	\$425/ sf.		\$2,550,000
Capital Equipment:				
▪ County-Wide Radio				\$1,233,325
Other Capital Equipment:*				
▪ Microwave Network				
▪ 8-Position Dispatch Center				
▪ Back-up Site				
▪ CAD/RMS Integration				\$956,000
Other Expense				\$418,000
Total Budgetary Estimate:				\$6,816,618

Table 4-7: Estimated Budget for Proposed Barrier Island/Mid-County Regional Center

4.6.2 Barrier Island/Mid-County Center Proposed Cash Flows

Cape May County plans on amortizing the \$1.2 million cost of the radio system over five years and the \$2.55 million cost of facility renovations over 15 years. The table on the next page shows the estimated net cash flows over the first five years of operation in comparison to ongoing operations of the seven PSAPs. The ongoing operating budget includes maintenance for radio, microwave, personnel, and other operational expense. The analysis does not factor in cost of living or inflationary increases, which would occur equally in either the current environment or a partially consolidated dispatch center environment. In this partially consolidated environment, Cape May County would see five-year cumulative savings of nearly \$7 million dollars.

Proposed Cash Flows	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Radio Upgrade (5 Years)	\$246,665	\$246,665	\$246,665	\$246,665	\$246,665
Renovation/New Construction (15 years)	\$170,000	\$170,000	\$170,000	\$170,000	\$170,000
Annual Operating Expenses	\$2,733,293	\$2,040,443	\$2,040,443	\$2,040,443	\$2,040,443
Total Proposed Cost of Dispatch	\$3,149,958	\$2,457,108	\$2,457,108	\$2,457,108	\$2,457,108
Current Cost of Dispatch	\$3,975,803	\$3,975,803	\$3,975,803	\$3,975,803	\$3,975,803
Savings/Costs	\$825,844	\$1,518,694	\$1,518,694	\$1,518,694	\$1,518,694
Five-year cumulative savings	\$6,900,624				

Table 4-8: Five Year Cash Flows for Barrier Island/Mid-County Model

4.6.3 Key Assumptions of Barrier Island/Mid-County Consolidated Center

The budget for a 'barrier island center' that include two of the largest mainland communities and Wildwood City maintains the same services as the full county single site model: 911 call answering, fire/EMS dispatch, and law-enforcement dispatch, as well as the full range of non-emergency calls for a fully functional and operational center to meet the emergency and non-emergency calls of participating agency first responders and municipal communications services.

The call volumes for this center are 263,950, which include a 30% increase over 2012 CAD incidents to address administrative calls. The seasonality of the region has also been addressed through a complement of full time and part time staff as well as working supervisors. Models called for significantly lower staff levels during the slower winter months and a higher complement during the peak summer period. To offset this we adjusted the staff so that consistent staffing could be considered with few fluctuations in procedural experience or knowledge of emergency procedures by incorporating part-time staff for swing shifts or alternate shift periods.

Budget expenses include the following items:

- Full time call taker/dispatch staff of 13; 4 full time supervisors; full time Quality Assurance and training support; 8 dedicated part time staff. Associated support staff and Center Director included in staff.
- New county-wide interoperable radio communications system capable of providing county-wide coverage on a consistent frequency band.
- County-wide microwave connectivity to three primary sites and a back-up site using the existing microwave infrastructure as the basis of coverage.

- County-wide budget includes a fully-equipped six position dispatch center configuration.
- County-wide budget assumes renovation of a 6,000 square foot space to support dispatchers and support staff.
- The budget (following year 1) includes line item expenses for CAD, radio, and microwave network maintenance that will be required during the life of the systems. Any additional CAD/RMS procurements or database systems for support staff are not included.

4.6.4 Operational Impact of Barrier Island/Mid-County Center

- Substantially enhanced emergency service response for all agencies participating.
- Full-time focus to the emergency services function within the consolidated center.
- Consistent radio communications and CAD integration for participating communities.
- Better interagency information sharing within the center and to mutual aid agencies.
- Elimination of duplicated services, especially among low call volume communities.
- Opportunities to pool financial and human resources and divert funds for system upgrades.
- Increased ability to communicate between agencies.

4.6.5 Financial Impact of Barrier Island/Mid-County Center

- Based upon the assumptions, costs include capital procurements and renovation costs that may require separate funding streams. The budget assumes pay back for these upfront costs will be spread over multiple years.
- There is a clear savings over current expenditures
- These expenses are inclusive of a new county-wide radio communications system that provides interoperable communications for communities that participate. Local radio communications systems may require upgrading or migration to the county system at local expense.
- Budgets include back-up center dispatch consoles for hot backup, which will require an additional microwave link for radio connectivity.

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4.7 Model 4: Multiple Consolidations – Small Two-PSAP Center

Stakeholders in the County expressed specific interest in developing small, multiple-PSAP consolidations of demographically homogenous communities for the purpose of sharing dispatch services. This would serve the purpose of theoretically sharing existing costs and create a pool of dispatchers that can work together in a setting similar to that in which they are now familiar and comfortable.

This scenario does not offer the full array of benefits available when transitioning to a more robust model such as the single-site consolidation or partial consolidation. However, there are some operational improvements in a two-PSAP consolidation:

- Consistent radio communications and CAD integration for participating communities.
- Better interagency information sharing within the center and to mutual aid agencies.
- Opportunities to pool financial and human resources and divert funds for system upgrades as needed.

4.7.1 Two-PSAP Consolidation Budgetary Estimate

We developed the following budgets for Avalon and Stone Harbor, since they have begun serious discussions and implementation toward a shared PSAP to be located in Avalon.

Budgetary Estimate: Avalon & Stone Harbor PSAP Consolidation (2-Town Model)				
Staffing Titles	Quantity	Avg. Salary	Benefits	Extended Total
Full time dispatchers	6	\$41,844	\$13,809	\$333,918
Supervisors	2	\$61,960	\$20,447	\$164,814
Subtotal: Staff	8			\$498,727

Equipment and Facilities	Notes	Average Cost	Extended Total
Capital Equipment	Avalon Police Upgrade	\$250,000	\$250,000
Subscriber Units		\$870	\$0
Radio Maintenance	Stone Harbor Maint.	\$9,218	\$9,218
Computer Maintenance	Law Soft, Filemaker Pro and Enforsys	\$15,691	\$15,691
Other Maintenance***	CAD Integration	\$25,000	\$25,000
Supplies			
Telephone Lines		\$5,100	\$5,100
TI Line			
Other Utilities		\$1,050	\$1,050
Clothing Allowance		\$2,400	\$2,400
Training		\$5,000	\$5,000
Subtotal: Capital & Other Expense			313,459
Option 4 Total Proposed Budget:			\$812,186

Current Combined Budget: **\$956,927**

Est. Savings/Cost Year1: **\$144,741**

Table 4-9: Budget for Proposed Two-PSAP Model

INTERTECH ASSOCIATES TECHNOLOGY & SECURITY CONSULTANTS AND ENGINEERS

January 20, 2014

Our staffing model assumes that the combined center can operate with two dispatchers per shift based on the call volume of 57,000 total incidents, inclusive of a 30% increase for administrative calls. We increased the dispatch staff to six full time dispatchers and two full time working supervisors, which in effect is an increase of two full time dispatch supervisors (evening/day) that did not exist in the individual centers. While this staffing represents one option of many, the clear benefit for these two small PSAPs is that by combining the dispatchers, both departments will benefit by having a larger pool of resources to draw upon and develop supervisory functions on a full time basis.

The budget includes the costs for an interoperable radio communications system and CAD integration using the LAWSOFT CAD system used in Avalon. At the outset, these communities decided to utilize MOTOTrbo as the VHF radio system that will support their immediate and short term needs. As a proprietary, non-public safety grade radio system that does not support P25 feature functionality, it is important for both communities to realize that this radio system may have a relatively short product life-span. That aside though, the system is both affordable and capable of remedying the immediate coverage and user issues experienced by Avalon Police Department while also providing interoperable communications between both towns' police, fire, rescue, and dispatchers. When the County migrates to a broader and more robust regional solution, these two communities may need to re-evaluate their use of the MOTOTrbo system, as it is not P25 compliant. Both communities will need to be part of the transition planning for the CAD/RMS system upgrades, GIS, and training on the new system that will incorporate the needs of both communities.

4.8 Sustainable Funding Methods

An ongoing discussion is necessary among county and local stakeholders to determine a consistent methodology regarding immediate and long-term direction for a regional communications environment. We have identified the feasibility of a regional center both financially and operationally, as each option produces an increasingly efficient service delivery platform across a spectrum of functions.

We estimate that the following models capture the essential costs necessary to sustain the operation and still result in favorable financial benefits. The Barrier Island/Mid-County configuration of seven communities and a full-county model both have sufficient call volume to support the economies that come with consolidation. They illustrate the benefits of a consolidated dispatch with sufficient support staff and resources capable of handling the seasonal call volume peaks during the summer months and offset by the more steady call volumes of mainland communities throughout the year.

As summarized at the beginning of this section in Table 4-1, the current aggregated dispatch expense throughout Cape May County is \$6.5 million. Comparing this annual recurring expense to either the proposed Mid-County/Barrier Island Center as an initial consolidation or the single consolidated center results in an annual savings ranging from \$1.5 million to \$3.3 million over current spending. *This estimate assumes capital and equipment expense for radio and facility renovations amortized over a five and fifteen year period, respectively, but does not include additional funding from any other source.*

Appendix C: Replacement Page 73

This revised page 73 replaces page 73 in original document

4.8.3.2: Full County Dispatch – Savings-Based Distribution

Dispatch Cost Year 1:				
	Current Dispatch Expense	Percentage of Current Spending	First Year Contribution Based upon % of Current Spending	Savings/ Cost
	\$3,150,117			
Cape May County	\$757,928	11.59%	\$365,178	\$392,750
Avalon	\$382,324	5.85%	\$184,208	\$198,116
Cape May	\$300,000	4.59%	\$144,543	\$155,457
Dennis Fire (Belleplaine)	\$126,809	1.94%	\$61,098	\$65,711
Lower Township	\$681,307	10.42%	\$328,261	\$353,046
Middle Township	\$662,629	10.13%	\$319,262	\$343,367
Ocean City	\$930,446	14.23%	\$448,299	\$482,147
North Wildwood	\$500,000	7.65%	\$240,905	\$259,095
Sea Isle City	\$250,000	3.82%	\$120,453	\$129,547
Stone Harbor	\$574,603	8.79%	\$276,850	\$297,753
Upper Township (Fire Dispatch)	\$217,720	3.33%	\$104,899	\$112,820
West Wildwood	\$38,000	0.58%	\$18,308	\$19,691
Wildwood	\$579,012	8.86%	\$278,974	\$300,037
Wildwood Crest	\$488,046	7.46%	\$235,145	\$252,900
Woodbine Fire (Belleplaine)	\$49,259	0.75%	\$23,733	\$25,525
Total	\$6,538,083		\$3,150,117	\$3,387,966

Table 4-15: Full County Funding Example – Percentage of Savings

To illustrate how the savings can be allocated among the participating communities, we used three alternative funding models for the proposed contributions and distribution of the associated savings. Our goal was two-fold in determining criteria for a funding model: the model must account for each community's use of the service/system and it must provide a *savings benefit to all* participants.

Worth noting is that the models *do not address assets or equipment that could be used in a regional center that have already been procured through local funds*. These details will need to be addressed at the local level with full involvement of each agency seeking participation in the Regional Center.

All three funding options illustrate possible contributions that vary based upon percentage of population, percentage of call volume, and percentage of current investment. Capital equipment expense has been spread over a five year period while facility renovation expense has been spread over a fifteen year period.

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4.8.1 Funding Solutions: Percentage of Call Volume Distributions Analysis

4.8.1.1: Barrier Island/Mid-County Dispatch, Call Volume Distribution

Dispatch Cost Year 1:	\$2,457,108				
	Total Call Volume	Percent of Total	1st Year Contribution Based upon % of Total	Current Dispatch Expense	Savings/ Cost
Cape May County Emergency Comm Ctr	1,261	0.48%	\$11,739	\$757,928	\$746,189
Avalon	39,989	15.15%	\$372,259	\$382,324	\$10,065
Cape May City	33,006	12.50%	\$307,249	\$300,000	(\$7,249)
Dennis Fire (Belleplaine)					
Lower Township	51,533	19.52%	\$479,721	\$681,307	\$201,586
Middle Township	55,072	20.86%	\$512,662	\$662,629	\$149,967
Ocean City					
North Wildwood					
Sea Isle City					
Stone Harbor	17,055	6.46%	\$158,762	\$574,603	\$415,841
Upper Township					
West Wildwood	500	0.19%	\$4,654	\$38,000	\$33,346
Wildwood	65,535	24.83%	\$610,063	\$579,012	(\$31,051)
Wildwood Crest					
Woodbine Fire (Belleplaine)					
Total	263,951		\$2,457,108	\$3,975,803	\$1,518,695

This view requires County to contribute based upon a call volume that is not representative of the total County volume

Table 4-10: Barrier Island/Mid-County Dispatch Funding Example – Percentage of Call Volume

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4.8.1.2: Full County Dispatch, Call Volume Distribution

Dispatch Cost Year 1:	\$3,150,117				
	Total Call Volume	Percent of Total	1st Yr Contribution using % of Total	Current Dispatch Expense	Savings/ Cost
Cape May County	1,261	0.29%	\$9,288	\$757,928	\$748,640
Avalon	39,989	9.35%	\$294,554	\$382,324	\$87,770
Cape May City	33,006	7.72%	\$243,114	\$300,000	\$56,886
Dennis Fire (Belleplain)	3,171	0.74%	\$23,357	\$126,809	\$103,452
Lower Township	51,533	12.05%	\$379,585	\$681,307	\$301,722
Middle Township	55,072	12.88%	\$405,650	\$662,629	\$256,979
Ocean City	63,000	14.73%	\$464,047	\$930,446	\$466,399
North Wildwood	33,006	7.72%	\$243,114	\$500,000	\$256,886
Sea Isle City	26,460	6.19%	\$194,901	\$250,000	\$55,099
Stone Harbor	17,055	3.99%	\$125,622	\$574,603	\$448,981
Upper Township	1,484	0.35%	\$10,931	\$217,720	\$206,789
West Wildwood	500	0.12%	\$3,683	\$38,000	\$34,317
Wildwood	66,035	15.44%	\$486,401	\$579,012	\$92,611
Wildwood Crest	32,924	7.70%	\$242,511	\$488,046	\$245,535
Woodbine Fire (Belleplain)	3,171	0.74%	\$23,357	\$49,259	\$25,902
Total	427,666		\$3,150,117		\$3,387,966

Table 4-11: Full County Dispatch Funding Example – Percentage of Call Volume

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4.8.2 Funding Solutions: Percentage of Population Distributions Analysis

4.8.2.1: Barrier Island/Mid-County Dispatch, Population-Based Distribution

Dispatch Cost Year 1:	\$2,457,108					
	Total Call Volume	Total Population	Percent of Population	First Year Contribution Based upon % of Total	Current Dispatch Expense	Savings/ Cost
Cape May County	1,261				\$757,928	
Avalon	39,989	1,315	2.62%	\$64,394	\$382,324	\$317,930
Cape May	33,006	291	0.58%	\$14,250	\$300,000	\$285,750
Dennis Fire (Belleplain)	3,171					
Lower Township	51,533	22,866	45.57%	\$1,119,721	\$681,307	(\$438,414)
Middle Township	55,072	18,911	37.69%	\$926,049	\$662,629	(\$263,420)
Ocean City	64,484					
North Wildwood	33,006					
Sea Isle City	26,460					
Stone Harbor	17,055	866	1.73%	\$42,407	\$574,603	\$532,196
Upper Township (Fire Dispatch)	1,484					
West Wildwood	500	603	1.20%	\$29,528	\$38,000	\$8,472
Wildwood	66,035	5,325	10.61%	\$260,759	\$579,012	\$318,253
Wildwood Crest	32,924					
Woodbine Fire (Belleplain)	3,171					
Total	427,666	50,177		\$2,457,108		\$760,767

Table 4-12: Barrier Island/Mid-County Dispatch Funding Example – Percentage of Population

- County contribution has not been calculated for this model
- Agencies that are using contracted services for Fire/EMS dispatch pay a disproportionate share due to relative population

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4.8.2.2: Full County Dispatch, Population-Based Distribution

Dispatch Cost Year 1:	\$3,150,117					
	Total Call Volume	Total Population	Percent of Population	First Year Contribution Based upon % of Total	Current Dispatch Expense	Savings/ Cost
Cape May County	1,261				\$757,928	
Avalon	39,989	1,315	1.42%	\$44,727	\$382,324	\$337,597
Cape May	33,006	291	0.31%	\$9,898	\$300,000	\$290,102
Dennis Fire (Belleplain)	3,171	6467	6.98%	\$219,962	\$126,809	(\$93,153)
Lower Township	51,533	22,866	24.69%	\$777,742	\$681,307	(\$96,435)
Middle Township	55,072	18,911	20.42%	\$643,220	\$662,629	\$19,409
Ocean City	64,484	11701	12.63%	\$397,986	\$930,446	\$532,460
North Wildwood	33,006	4,041	4.36%	\$137,4467	\$500,000	\$362,553
Sea Isle City	26,460	2,114	2.28%	\$71,904	\$250,000	\$178,096
Stone Harbor	17,055	866	0.94%	\$29,455	\$574,603	\$545,148
Upper Township (Fire Dispatch)	1,484	12,373	13.36%	\$420,843	\$217,720	(\$203,123)
West Wildwood	500	603	0.65%	\$20,510	\$38,000	\$17,490
Wildwood	66,035	5,325	5.75%	\$181,119	\$579,012	\$397,893
Wildwood Crest	32,924	3,270	3.53%	\$111,223	\$488,046	\$376,823
Woodbine Fire (Belleplain)	3,171	2,472	2.67%	\$84,080	\$49,259	(\$34,821)
Total	427,666	92,615		\$3,150,117	\$6,538,083	\$2,630,039

Table 4-13: Full County Dispatch Funding Example – Percent of Population

- Agencies that are using contracted services for Fire/EMS dispatch pay a disproportionate share due to relative population
- County contribution has not been calculated for this model

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4.8.3 Funding Solutions: Percentage of Savings Distributions Analysis

4.8.3.1: Barrier Island/Mid-County Dispatch, Savings-Based Distribution

Dispatch Cost Year 1:	\$2,457,108			
	Current Dispatch Expense	Percentage of Current Spending	First Year Contribution Based upon % of Current Spending	Savings/Cost
Cape May County	\$757,928	19.06%	\$468,411	\$289,516.63
Avalon	\$382,324	9.62%	\$236,282	\$146,041.82
Cape May	\$300,000	7.55%	\$185,405	\$114,595.33
Dennis Fire (Belleplaine)				
Lower Township	\$681,307	17.14%	\$421,058.44	\$260,248.74
Middle Township	\$662,629	16.67%	\$409,515.04	\$253,113.96
Ocean City				
North Wildwood				
Sea Isle City				
Stone Harbor	\$574,603	14.45%	\$355,113.60	\$219,489.40
Upper Township (Fire Dispatch)				
West Wildwood	\$38,000	0.96%	\$23,484.59	\$14,515.41
Wildwood	\$579,012	14.56%	\$357,838.43	\$221,173.57
Wildwood Crest				
Woodbine Fire (Belleplaine)				
Total	\$3,975,803		\$2,457,108	\$1,518,694.86

Table 4-14: Barrier Island/Mid-County Dispatch Funding Example – Percentage of Savings

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4.8.3.2: Full County Dispatch – Savings-Based Distribution

Dispatch Cost Year 1:	\$3,150,117			
	Current Dispatch Expense	Percentage of Current Spending	First Year Contribution Based upon % of Current Spending	Savings/ Cost
Cape May County	\$757,928	11.59%	\$365,178	\$392,750
Avalon	\$382,324	5.85%	\$184,208	\$198,116
Cape May	\$300,000	4.59%	\$144,543	\$155,457
Dennis Fire (Belleplain)	\$126,809	1.94%	\$61,098	\$65,711
Lower Township	\$681,307	10.42%	\$328,261	\$353,046
Middle Township	\$662,629	10.13%	\$319,262	\$343,367
Ocean City	\$930,446	14.23%	\$448,299	\$482,147
North Wildwood	\$500,000	7.65%	\$240,905	\$259,095
Sea Isle City	\$250,000	3.82%	\$120,453	\$129,547
Stone Harbor	\$574,603	8.79%	\$276,850	\$297,753
Upper Township (Fire Dispatch)	\$217,720	3.33%	\$18,309	\$19,691
West Wildwood	\$38,000	0.58%	\$278,974	\$300,038
Wildwood	\$579,012	8.86%	\$235,146	\$252,900
Wildwood Crest	\$488,046	7.46%	\$23,734	\$25,526
Woodbine Fire (Belleplain)	\$49,259	0.75%	\$104,900	\$112,820
Total	\$6,538,083		\$3,150,117	\$3,387,966

Table 4-15: Full County Funding Example – Percentage of Savings

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4.9 Staffing & Budget Analysis: Conclusion

It is clear that combining dispatch services in a regional center will yield financial benefits. How much will vary greatly from PSAP to PSAP and the net amount will change even more once local needs are readdressed through the lens of a regional center and perhaps the need to re-think local business practices and seasonal requirements within each community to reflect a more efficient local budget. In some cases, it may alter the number of hours Police Departments are accessible for police business; in other cases, it may require a shift of staff from dispatcher to administration to support functions that are now handled in a 24x7 environment. We believe that a single recommendation will not be sufficient to address each of the combinations of services and situations that may arise locally in each town. To that end, each town will need to evaluate its individual circumstances as the regionalization process proceeds. These steps may include:

- Analyze carefully the full scope of these unrelated duties.
- Examine in detail the best way to accomplish these unrelated duties, should the town join a regional center and transition its own dispatching function.
- Identify all fully loaded costs that the town would continue to incur to maintain these non-dispatching duties.
- Add or subtract these costs from the town's individual financial data presented in this Feasibility Study.

The financial benefits of regionalizing dispatch services are self-evident after the initial investment is made. The operational and functional aspects of regionalizing will be realized almost immediately once the communications center is able to operate with dedicated staff, trainers, and support services as well as a fully developed organization of trained call takers and dedicated police and fire dispatchers.

The reality for Cape May County stakeholders is that some level of equipment investment will be required regardless of whether regionalization is to become a reality or not since several PSAP systems are at or nearing the end of their useful life. To that end, a regional consolidation provides towns the benefit of shared costs and greater choices reducing duplicative system expenses which ultimately are supported by local tax payers. As with most investments, a 'payout' of the investment over a relatively shorter period would mitigate the associated financial strain and allow participating communities to enjoy the financial benefits of consolidation.

The issue of initial and ongoing sustainable funding will require resolution in the near term before the local cost of maintaining viable local dispatch centers overwhelms community budgets with increasing technology investments that are duplicative to the county and regional technology investments. As shown in these models, longer term savings will be seen within a relatively short period of time and realized after the initial investments are made. These savings will vary by town and should be viewed as directional since the funding models *do not address assets or equipment that could be used in a regional center that have already been procured through local funds*. We would anticipate that these details will be addressed at the local level with full involvement of each agency seeking participation in the Regional Center.

Volume V: Governance

5.0: Overview: Governance

In 2006, the State of New Jersey commissioned the John J. Heldrich Center for Workforce Development to study the impact and potential efficiencies that could be derived through consolidation of emergency call answering and dispatch. The results of that study clearly indicated that with proper financial incentives, there were sufficient operational and functional advantages that could increase services and efficiencies by consolidating emergency call answering and dispatch. Even without financial incentives, transitioning smaller PSAPs into larger county or shared community dispatch centers was and still is a viable and strongly endorsed method of increasing operational effectiveness and long term financial savings for New Jersey PSAPs.

5.1 Governance and Sustainability

Three governance structures were identified at the time of that report as viable options to achieve a consolidated center:

- Contractual arrangement with a fee for services.
- County PSAP to provide services.
- Partnership and shared governance among participating agencies.

Seven years after publication of that report, few other options have evolved for the development of an alternative form of governance for the purpose of sharing emergency communications services. Unlike other parts of the country that have encouraged and, in effect, legislated the option for non-governmental units to become the authorized agents for regional emergency communications, New Jersey communities do not have a legislated option that enables them to develop their own body politic other than a joint meeting or 501C-3 entity; both of which come with an assortment of potential limitations that offset their benefits. Massachusetts, Missouri, Virginia, and other states around the country have identified mechanisms to alleviate the political cloud that often hangs over the 'ownership and control' that comes with the emergency communications and dispatch function.

Intertech Associates met with members of the New Jersey Department of Community Affairs, whose role previously has been identifying, developing, and supporting regional services but is now focused on offering 'technical assistance' for towns that are interested in pursuing shared functions on their own. One of the areas of discussion with the Department of Community Affairs concerned alternative governance models that could overcome the politics that often become the obstacle to regionalization – even when communities are interested in pursuing it. According to the Department, there have been few developments on this front since the only legislation regarding shared services was to 'penalize' towns that did not regionalize; there have not been any further developments on this particular bill.

5.2 Local Governance

Governance addresses the framework upon which legislative action and managerial decision making occurs, which allows for the funding, management, staffing, and operations of a regional communications center.

Cape May County first responders interested in participating in a regionalized emergency communications center voiced specific requirements in order for them to consider the service for their communities. The overarching requirement was for the governance to be balanced and to provide for an equal level of input from all participants. The management structure needs to be able to create and sustain a multi-jurisdictional and multi-disciplinary environment for promoting interoperable communications, collaboration among agencies, and accountability. In the opinion of Cape May County stakeholders, the governance should not be part of an existing town or aligned with a particular discipline since it needs to serve all disciplines fairly and equitably without political bias.

As pointed out, the independence sought by stakeholders would require a legislated action in order to form a body politic capable of providing the administration, funding, staffing, and management. The County is currently the agency authorized to provide the umbrella services of administration, funding, and management and, therefore, may be the only agency capable of supporting the role of regional emergency services communications provider.

The County though has historically been viewed by local stakeholders as having a political bias that has been an impediment in recent years. Although the County's current management team is wholly supportive of regionalizing if proven to be beneficial there have been concerns expressed that require interested participants to consider development of an independent advisory team with representatives from each discipline including the county to develop a multi-jurisdictional, multi-disciplined regional communications center.

To achieve a balance that would offset the perception of bias, preliminary discussions with participating agencies and town leadership will need to be coordinated. We offer the following for consideration in the development of the preliminary and ongoing development of a regional emergency communications center for Cape May County:

- 1. Creation of a preliminary advisory committee to begin discussion regarding start-up costs, location, services, inter-local agreements, and other issues related to the governance and implementation of a regional emergency services dispatch center**

This informal board would be responsible initially and as an ongoing component of the governance structure to seek input from all those interested in participating and with them to develop initial processes, procedures, and necessary inter-municipal agreements for consideration by each town's management. Additionally, with representation from participating agencies and the County, the Advisory Committee would discuss funding, operations and management, technology deployment, and membership as part of its dialogue.

2. Development of standing sub-committees to represent the various aspects of regional emergency services.

Once the development of a sub-committee is established, participation by initial town leadership and agencies in standing sub-committees should reflect those who anticipate contributing in the start-up process and ongoing services.

- Technology, governance, staffing, and finance sub-committees should be established to coordinate with the delivery of services with the County.
- A transition strategy will be necessary for the purpose of working out the procedures, policies, and delivery mechanisms for communications and record keeping.

3. Taking into account the initial start-up costs critical to launch a regional communications center, its ongoing operations and staff contributions for initial and ongoing membership, financial policies, and procedures will need to be developed to address municipalities that are early adopters without creating financial disincentives for later adopters.

- A minimum contractual commitment requiring municipal membership of a pre-determined period should be established to develop a stable financial basis of operations and functionality. The amount and basis of this fee should be established based upon the required capital investments to be made, the operating expenses, and any marginal increment such as staffing, desks, and others required to support the needs of each incremental community.
 - Refinement of the conceptual savings models presented in the previous section of this report will be required to determine the contributions anticipated by each community.
 - Precedent in other New Jersey regions has been to establish a county tax to cover the ongoing operating costs of providing regional dispatch.
 - Developing a bonding mechanism for the capital equipment and facility renovation should be considered.
- Any municipality that joins the emergency communications center after the period for original charter membership should pay a one-time late-membership fee.
- The rationale for establishing a late membership fee is to provide:
 - A fiscal incentive for interested municipalities to commit to the Center early in the process to support its organization, policy-making, and management.
 - Municipalities who do not commit to the emergency communications center from the beginning should not gain a fiscal advantage from having made that decision.
 - The late membership fee should not disadvantage towns that join early by imposing a fiscal burden for having made this decision.

Volume VI: Technology, Operations, & Facilities Analysis

6.0: Overview: Technology, Operations & Facilities

First responders throughout Cape May have developed a level of mutual support based both on geographic proximity and need for mutual support and interoperable communications. The lines of communications are very much aligned along the ‘shore’ facing communities within a clustered pattern so that fire agencies are typically aligned for mutual aid support and law enforcement offers similar support between like communities. Mainland communities are typically separate from their shore-facing peers as their communities are not as impacted by seasonality and therefore have less fluctuation in traffic volumes, population, and the types of incidents that come with a summer resort environment. As such, mainland communities have developed strategies for interoperable communications and mutual aid support much like their shore-facing neighbors have done – but not together.

6.1 County-Wide Radio Communications

The result in effect is that communities operate in silo fashion – able to communicate within a town but not between towns despite the fact that 12 of the 13 Cape May towns operate on the same frequency band. So while the discussion regarding consolidation may be the impetus to evaluate operational practices, dispatch consolidation is not a requirement for the County and individual towns to assess their own needs relative to developing a county-wide radio communications solution. Unified radio communications should be considered in long range public safety communications planning to increase efficiencies and improve field operations during times when interoperability is crucial.

We evaluated the following options as possible alternatives to achieve a state of interoperability within Cape May County and between County agencies, towns, and first responders.

6.1.1 County-wide 700/800 MHz Radio System

The New Jersey State Police have approached County Administrators regarding possible use of the State Police 700/800 MHz radio system. There are no known system infrastructure costs; however subscriber units would be the responsibility of local agencies. Subscriber units cost from \$5,000 to \$6,000. Ocean City is currently the only Cape May community operating on 800 MHz frequencies. Transitioning to this system would require all towns to migrate to the 800 MHz frequency band and implement associated dispatch consoles locally until the County is prepared to support a regional dispatch function. Changing to this spectrum may also impact local coverage. Further documentation and research is required to quantify local operational impact and financial requirements.

6.1.2 UHF Radio

During the course of our research we became aware of a trial UHF system that was implemented through a grant the County Prosecutor’s Office had received. The grant and subsequent trial system established a UHF P25 trunked radio system with ten UHF frequencies. The system is fully operational and provides coverage throughout the county.

The system, which includes a P25 system and console software, is currently being used by the Prosecutor's and Sheriff's Offices. While the vendor has prepared a proposal for discussion, further vetting of the system may be required to substantiate coverage and costs. The UHF frequency band is not utilized by any agency in the County at this time. The system as configured could support 1,000 subscribers. Based upon a high-level summary of county subscribers in service today, as reported by each town, there are approximately 500 portable and 200 mobiles units. Subscriber units cost approximately \$1,800 per unit. Transitioning to this system would require all towns to migrate to the UHF frequency band and implement UHF dispatch consoles locally until the County is prepared to support a regional dispatch function. The trial was scheduled to end March 2013.

6.1.3 VHF Radio

With the exception of Avalon Police, who are currently using the UHF frequency band but transitioning to VHF as part of a two-PSAP dispatch consolidation, and Ocean City Police, who are on 800 MHz, the remaining PSAPs and agencies operate on the VHF frequency band. Using data from our research, we estimate there are as many as 86 VHF frequencies in use within the County. This makes the VHF band the most immediately interoperable frequency; however, despite the use of same frequency systems, there is no connectivity between communities. This means that the antenna sites between communities are not connected and the unique frequencies used by police and fire disciplines in each town are not available in the adjoining community. The result is that Cape May County agencies are virtually unable to communicate with each other.

To achieve a county-wide system, a wide area transmission backbone will be required along with refinement of the frequencies to be used in a County-wide channel plan. Through our research, we have identified the county microwave backbone that is accessible and operational for use. In exploring the future use of this infrastructure as the primary method of radio transmission, we have been told by Count MIS that it can be expandable up to 300 MHz. With a total of 86 VHF frequencies in the county, a baseline channel plan that includes six paired VHF frequencies to support the initial operations for dispatch communications is a viable and lower cost option than what is available through the other alternatives.

6.2 Radio Communications Recommendations

A transition to a county-wide system using VHF frequencies may have the fewest limitations due to the extensive local use of VHF systems. This option would result in the least expensive upgrade path for software re-programmable radios now in use. Most communities will require a strategy to upgrade their subscriber equipment over a period of time since many are operating on equipment past its useful life. The cost of a new VHF subscriber unit is about \$1,200. Transitioning to a county-wide VHF system would be the most seamless option, as towns would not need to overhaul their entire operations. Implementation of services may be done via software programming locally until the County is prepared to support a regional dispatch function. Existing county-wide VHF frequencies could be used to support this system.

The limitation with any county-wide, P25 system on any frequency band is the integration of proprietary radio technologies, such as MotoTurbo which is being used by Stone Harbor and Avalon in their process of transitioning to a single dispatch center. This particular system has proven useful on a small scale; however, it will not support many of the features or services associated with a more robust system that would be required at a county level. Our recommendation is for these communities to re-examine their role in the County system while maintaining integration through their dispatch with any future county-wide system.

6.3 Coverage Analysis

Based upon our review of the available radio channels in Cape May County, we found that the radio coverage in the VHF band provides saturated coverage throughout the county. Although current users of VHF on local systems have found pockets of poor coverage, most systems have been designed without simulcast capability (the ability to provide transmission on all tower facilities simultaneously) and in some cases, the antenna placements have not been re-examined since the individual systems were initially installed. The computer propagation models used for this study have been prepared with reliability factors of 95% portable in-building coverage 95% of the time. These documents were prepared for *conceptual purposes* and will require further analysis before use in a system design.

By selecting proper transmit and receive antenna locations and implementing a simulcast system architecture, communications between all first responders and a centralized county emergency operating center can be achieved. The key to this functionality is the means by which the antenna sites are connected. The three primary sites for the analysis are the Cape May County Courthouse (Middle Township), the Cape May County Airport Water Tower (Lower Township) and the County Records Recovery Center (Dennis Township). Based upon information received from County MIS, these sites are connected by an IP microwave link. Utilizing this technology the County could implement a simulcast/ multichannel VHF system.

Currently the County is utilizing six repeater pairs for its various functions, which it shares with communities across the County. A county-wide network could operate by re-allocating pairs for police, fire, EMS, road and highway, administration, and a miscellaneous channel for use by the Emergency Operating Center. All agencies in all municipalities within the county will have direct communications for area wide communications. A set of potential frequencies for this application have been identified on the next page; however, further assessment will be required to determine the exact function and operation of current channels, potential use, and application. Further, as communities consider coming onto the regional radio system, a possible caveat may be that they prepare a letter of concurrence to allow the County to have use of frequencies while they are on the County system.

The attached coverage plot indicates the effective talk-out and talk-back coverage. The attached map of the county illustrates the IP microwave connectivity and the following chart highlights the VHF frequencies which may be used in a VHF channel plan.

TX	RX	License #		Name	Description of Current Use	Proposed Use
154.78500	155.79000	WQBS528	RM	CapeCo SO 1	Sheriff Dispatch	Law Enforcement Dispatch
155.19000	155.85000	WNQF854	RM	CapeCo COM	Countywide Information	Law Enforcement Dispatch
155.41500	159.03000	KXD237	RM	CapeCo PO V	County Prosecutor's Office (VHF) - Shared from Atlantic County	All Services/All Call
154.38500	153.83000	WPKQ437	BM	CapeCo FD 3	Regional Fire Operations (Stone Harbor and Avalon)	Fire/EMS Dispatch
151.01000	159.04500	WNXQ587	RM	CapeCo TEBD	Traffic, Electrical and Bridges	Public Works/DPW
158.82000	153.80000	WPKQ501	BM	CapeCo DPW	Public Works, Mosquito Control, and Facilities	Public Works/DPW
155.74500		KNJX314	BM	CapeCo OEM 2	Office of Emergency Management	Fire/EMS Dispatch

Table 6-1: Cape May County Sample Channel Plan

6.4 Data Infrastructure Connectivity

The County has an active, existing IP microwave network linking over twenty-five sites throughout the county. The major hubs, located at the Records Recovery Center (Dennis Township), Cape May Airport Water Tank (Lower Township), and the Cape May County Library (Middle Township) provide 11 GHz IP microwave backhaul connectivity throughout the county. This network can provide county-wide connectivity for VHF radio transmission in addition to existing county functions and future data/image communications. The current configuration of three primary hub sites is based upon a star topology where any single site may be vulnerable to outage, potentially impacting transmission to other sites.

To increase the survivability of the network for critical radio communications, we recommend creating a ring topology using five sites instead of relying exclusively on the three hub locations. This can be achieved by linking two additional sites to the VHF network for microwave network only service. The two additional sites that can provide this extra redundancy are located at Site 4.2 on the County Microwave Map in Lower Township, approximately 1.2 miles from the Water Tower site, and Site 2.1 in Dennis Township, approximately 3 miles from the Records Recovery Site. These sites offer an additional measure of survivability for the sustainability of mission critical communications.

6.4.1 Microwave Tower Locations and Coverage Maps

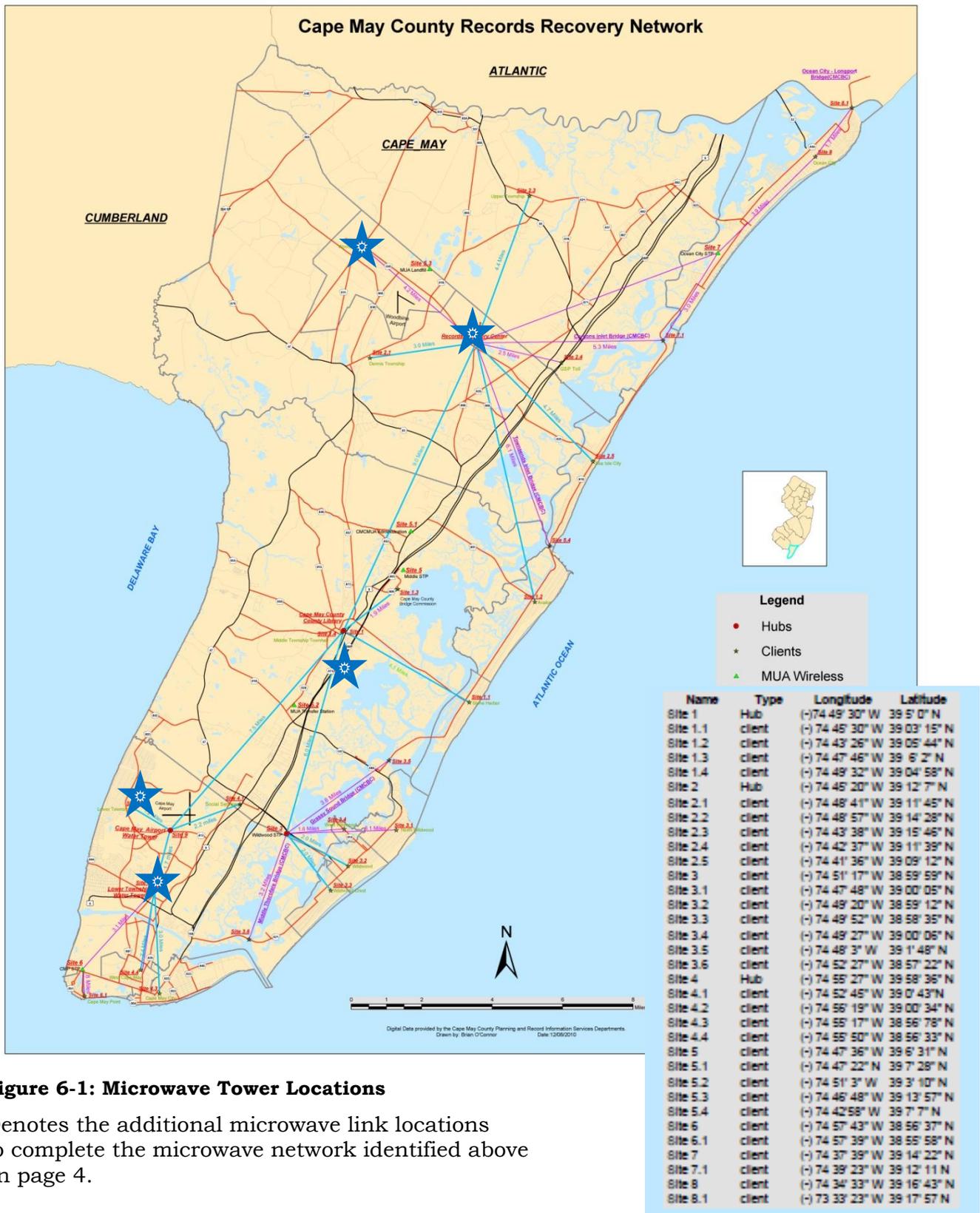


Figure 6-1: Microwave Tower Locations

★ Denotes the additional microwave link locations to complete the microwave network identified above on page 4.

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RAPTR Version 22.3.165

Friday, June 14, 2013 13:49:42

Project: Cape May

MBP: 1234

Figure: VHF Cape May County

Design: Bounded Area

Service: Portable, Talkback, Indoors, No SMA, NB P25 Conventional

Engineer: UHRJ

Map type - 1:313,641

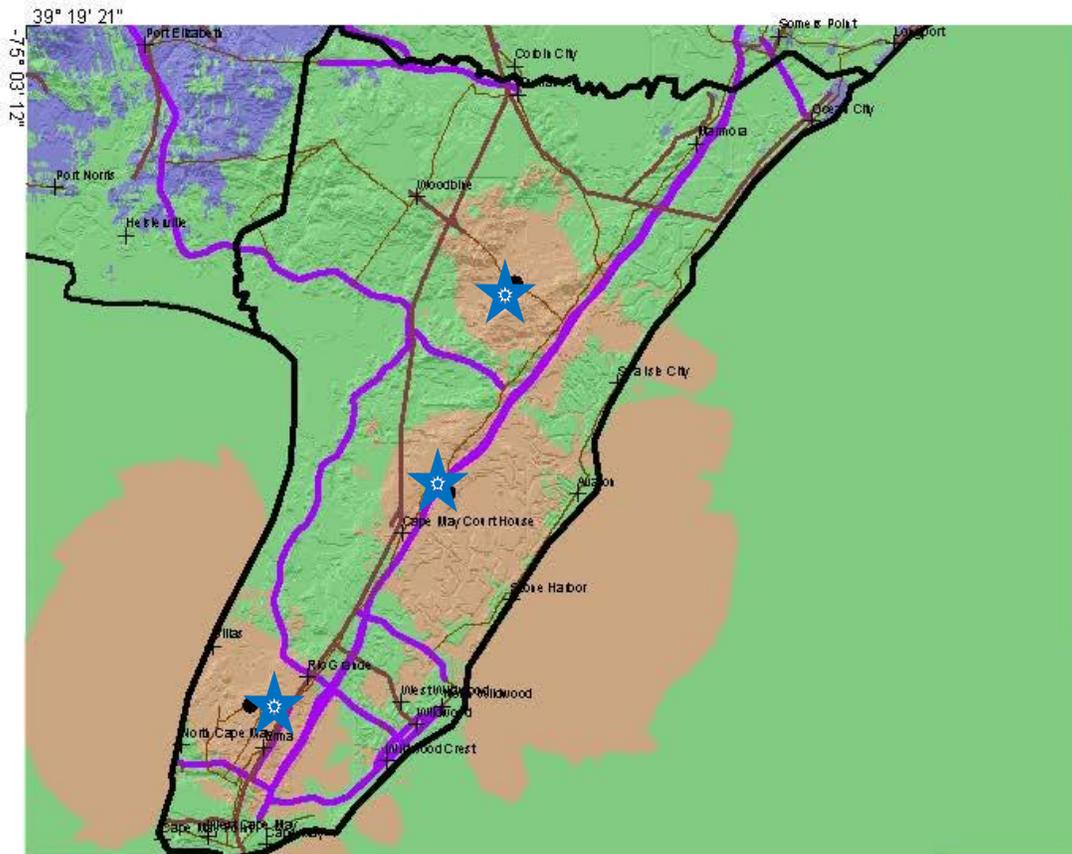
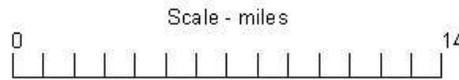
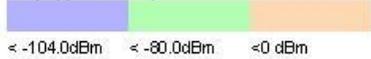


Figure 6-2: Talk-Back Coverage from Portables

★ Talk back coverage from portable and mobile units throughout the County using three (3) antenna sites located at the Records Recovery Center (Dennis Township), Cape May Airport Water Tank (Lower Township), and the Cape May County Library (Middle Township).

- Best Coverage (<0dBm)
- Good Coverage (<-80dBm)
- Less than adequate coverage (<-104dBm)

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January 20, 2014

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Friday, June 14, 2013 12:52:13

Project: Cape May

MBP: 1234

Figure: VHF Cape May County

Design: Bounded Area

Service: Portable, Talkout, Indoors, No SMA, NB P25 Conventional

Engineer: UHRJ

Map type - 1:313,641

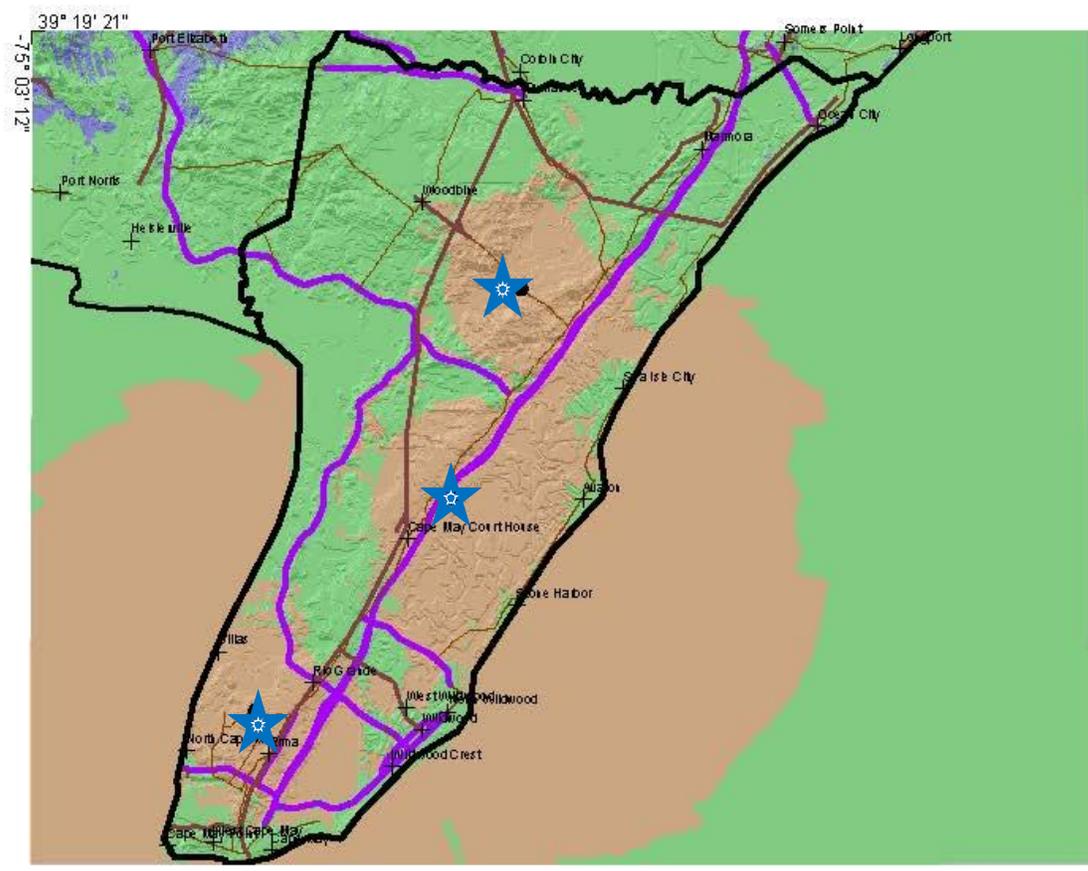
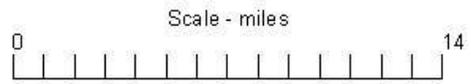


Figure 6-3: Talk-Out Coverage

 Talk out coverage from portable and mobile units throughout the County using three (3) antenna sites located at the Records Recovery Center (Dennis Township), Cape May Airport Water Tank (Lower Township), and the Cape May County Library (Middle Township).

-  Best Coverage (<math>< 0\text{dBm}</math>)
-  Good Coverage (<math>< -80\text{dBm}</math>)
-  Less than adequate coverage (<math>< -104\text{dBm}</math>)

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6.5 Technology Proposed Budget based upon Partial Consolidation

Description	QTY	Unit Cost	Total	Comments
Furniture*	6	\$18,000	\$108,000	
P 25 Repeaters	18	\$30,000	\$540,000	
Antenna Systems	6	\$1,500	\$9,000	one antenna for Rx one for TX per tower
VHF Multi Couplers 8 Channel	3	\$5,500	\$16,500	
VHF Tx Combiners 8 Channel	3	\$12,500	\$37,500	
7/8 Coax Cable	2500	\$10	\$25,000	
Time/ GPS UNIT	1	\$500	\$1,500	
Time /GPS server- 2 /network	2	\$500	\$3,000	
Radio Console Electronics	6	\$30,000	\$180,000	
NG 911 console *	4	\$25,000	\$100,000	
Network Interface	6	\$2,500	\$15,000	1 per tower and one per dispatch location
Network Contoller	2	\$15,000	\$30,000	
Logging Recorder System*	1	\$75,000	\$75,000	
UPS Backup Power	6	\$3,500	\$21,000	
GPS transponder	6	\$500	\$3,000	
Subsriber VHF Radios	0	\$1,800	\$0	
<i>Installation Labor</i>			<i>\$116,450</i>	
Total Estimated Radio System Expense				\$1,280,950
Estimated Microwave Expense				\$20,000
Estimated Back up Center Expense				\$465,500
Estimated CAD/RMS Integration				\$500,000
Subsequent Years Ongoing Maintenance (Radio, Microwave, Back-Up Site, CAD Integration)				\$301,770

Table 6-2: Estimated Technology Budget

6.6 Computer Aided Dispatch (CAD), Records Management (RMS) and Mapping

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of data interoperability. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system or integrating disparate agency applications into a platform that can provide interoperable access as a solution.

Six of the twelve PSAPs operate on differing versions of the ENFORSYS CAD/RMS system. At least one fire department operates on Firehouse, a fire CAD system that can integrate with several different CAD systems. Several PSAPs utilize their town GIS as the basis for their mapping systems; eight of the twelve PSAPs do not have an integrated mapping component that provides integration with CAD, vehicles, fire resources, and the caller. This last element is critical as it forms the major part of the foundation of the CAD subsystem and supports many elements of the RMS subsystem.

Going forward, these systems would be required to address local data information needs as well as integration requirements with the Federal Bureau of Investigation's National Incident Based Reporting System (NIBRS) and the U.S. Fire Administration's National Fire Incident Reporting System (NFIRS).

The table below provides an outline of both required and probable data and software systems that will ultimately need to be considered in an integrated and consolidated dispatch environment to support reporting, local and remote access, web incident reporting, and an ever growing need for systems integration as NG-911 applications evolve.

CAD	RMS	Support Functions	
Police CAD	RMS	Human Resources	Traffic
GIS	Integration with CAD	Scheduling	Warrants
AVL	Police Incident Reporting	Training	Motor Vehicles
RMS	Fire Incident Reporting	Facility Management	
Mobile Access	EMS Incident Reporting	Court Processing	
E911 Mapping and Integration	Mapping	Missing Persons	
NCIC		Arrests and Booking	

Table 6-3: Data and Software Applications

6.7 Operational Improvements

Within a county-wide center there are likely to be operational improvements that come with the ability for resources to be shared within the same facility, using consistent procedures and the same technology. Other improvements to the operational effectiveness of 911 communications and dispatch include:

- **Coordination of emergency service resources**

This may be the most important change impacting first responders and includes the procedural consistency of having call takers and dispatchers trained and capable of delivering information when and how first responders need it. A significant tool that will enable the information flow is a CAD/RMS system designed to provide detailed information at an agency and discipline level of detail. Part of this initiative will require updated mapping systems and automatic vehicle location systems tied into logical GIS mapping. Implementing this type of system will require full support of each participating agency and community to facilitate and coordinate the information necessary for a multi-jurisdictional system to operate transparently.

- **Increased information flow**

An outgrowth of maintaining an information database that contains multi-jurisdictional, cross-disciplined data is the availability of that data to first responders across jurisdictions. Geo-based information as well as historical information regarding property or assets can be a real-time asset.

- **Ability to accommodate peak traffic, seasonality and high volume periods**

A consolidated dispatch environment will likely have capacity and capability to accommodate the peaks and valleys of call volume. The call volume analysis and associated staffing estimates anticipate a higher than documented volume of activity with all call activity that is now processed by the individual towns handled within the Center by dedicated call takers and dedicated dispatch staff. The consolidated center would be able to handle a surge in demand for emergency communications better than any individual agency by itself.

- **The proposed center will support the full range of non-emergency and emergency calls**

Our analysis of practice and procedure within the local PSAP as well as the high volume of administrative calls provided direction for our recommended complement of traffic and staffing to be supported in a consolidated center. Given the fact that administrative calls are estimated to be 78% of the total PSAP activity today, the new center must be able to handle this volume from day one. Our staffing analysis assumes that call takers will process calls within the two minute requirement established by NFPA 1221 and transfer that call to a dispatcher or specific town/agency. Dedicated and cross-trained staff will streamline this process as personnel become accustomed to the newly defined procedures and system.

6.8 Facility Options

A successful transition will require a facility that can support the high technology and network security requirements of a mission critical communications center. None of the existing dispatch centers has the capability of expanding to support a fully survivable consolidated PSAP operation for Cape May County as there is insufficient building area to accommodate the projected staffing, support, or technology requirements.

Site selection for a mission critical facility requires an extensive review of existing municipal and county facilities in an effort to minimize the cost of transitioning. The County has identified potential building and construction projects that may lend themselves toward the addition of a 6,000 square foot or even larger facility. While these plans are in the preliminary stage of discussion, this is the most opportune time for the County to address the space requirements of a consolidated dispatch center.

To that point, we have identified the following list of sample criteria to explore feasible sites. We have attributed sample importance weights to each criterion as a measure of the relative importance of that item:

Description of Criteria	Importance
Access to telecommunications	10
Building hardening against natural disasters	9
Building hardening against man-made disasters	9
Accessibility to employment for existing dispatch staff and others	8
Ability to secure site from vandalism, terrorism and other unauthorized access	8
Land area suitable to accommodate building needs, security and parking	9
Adequate building envelope space	8
Cost of site use	7
Existing Public Infrastructure	8
Expansion Capability	8
Centralized Location	7

Table 6-4: Sample Criteria for Evaluating Dispatch Facility Location

6.8.1 Back-up Facilities

Throughout the interview and data collection phase of the project several sites were brought to our attention and for various reasons not considered as viable alternatives. Sites such as the airport in Lower Township, the Cape May Courthouse building in Cape May Courthouse, and the Belleplaine Emergency Dispatch Center were discussed. Factors such as lack of infrastructure, expandability, survivability, and age of facilities were all mentioned as factors that precluded serious consideration of some of the sites.

The Belleplaine facility has emerged as a realistic alternative based upon its current operation as a privately contracted emergency communications and dispatch center for Dennis Township, the Borough of Woodbine, and the Southern Section of Maurice River Township (Cumberland County) that includes the towns of Dorchester, Leesburg, Heislerville and Delmont.

Belleplaine's three-position center functions as a 'call hub' for E-911 and dispatch, answering all incoming calls. The Belleplaine Emergency Corps Dispatch Center performs specific tasks focused mainly on emergency call answering, dispatching for fire, EMS, and OEM agencies, and public safety support services such as scheduling non-emergency ambulance runs and dispatching wheelchair/livery prescheduled runs. Dispatchers monitor nine BLS and four fire units on a single radio position during a normal day.

The Belleplaine PSAP is staffed 24 hours a day, seven days a week, by a full-time receptionist and call answerers/EMD dispatchers. The dispatchers are responsible for answering two E911 trunks with "9-1-1, where is your emergency?" and four administrative phone lines, as well as managing two fax lines and one modem. When receiving a call, caller information (name, address, phone, type of emergency, and age and patient update) is entered into the Medical Dispatch CAD system. Calls are then dispatched to fire and EMS first responders on up to six radio frequencies, including monitoring of fire ground channels during an event.

E911 calls are given first priority followed by administrative lines. With three dispatchers on duty at all times, even if multiple calls come in simultaneously, each incident can be processed as its own regardless of the number of incidents in progress. As with other dispatchers in Cape May County, Belleplaine dispatchers instruct callers on emergency pre-arrival instructions until emergency response units arrive. Dispatchers receive and respond to telephone requests for emergency services, provide First Aid or CPR instructions until the arrival of medical assistance, utilize radio, telephone, or other electronic equipment to dispatch to four fire departments and two emergency medical units, transfer law enforcement calls for service to New Jersey State Police, and refer non-emergency situations to the appropriate public or private agencies or personnel.

Calls requesting police assistance have a one-button transfer to NJ State Police. State Police monitor the Belleplaine dispatch channel and respond as needed to all fire and other calls that require police assistance. Calls requesting fire assistance are dispatched to the appropriate fire company, calls requesting basic life support EMS assistance are dispatched to the closest BLS unit, and calls requesting advanced life support services are transferred via landline directly to

Medcomm. Dispatchers are trained to maintain accountability for the Fire and EMS crews and to monitor fire/ground during an incident, including performing six-minute safety checks.

Typically, the back-up PSAP should have the same space characteristics as the primary site but also be available on a hot standby basis so that consoles, radio dispatch, and associated CAD/RMS systems are available 24x7 with dispatchers able to step in and work immediately. With a relatively straightforward set of changes, the Belleplain facility offers an immediate back-up function and is currently being vetted by the County so that they have a more formalized role in County operations.

Future data and systems would mirror the primary site on a real time basis. The alternative is to develop a back-up facility that is on warm standby where critical data is mirrored to a secondary server at regular intervals, which means that there are times when both servers do not contain the exact same data.

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6.8.2 Space Utilization Criteria

Using the staffing plan and program as a guide combined with our experience in designing state-of-the-art dispatch communications centers, we have developed the following guidelines to benchmark facility size and program spaces. The figure below provides a conceptual view of the spaces outlined in approximately 6,000 square feet of space.

Room	Square FT	Comments
Admin/Clerical	153	Administrative and Clerical Support
Rest Rooms/Locker Area	108; 51	For use by dispatchers in enclosed space. Separate facilities for support staff. Three spaces in total
Kitchen	141	Included in self-contained dispatch space
Dispatch Center	1524	To support a complement of 9 dispatch positions and associated ergonomic furniture, file cabinets and walk-around space
Equipment Room	385	To house network, dispatch, radio and 911 equipment and all other technology equipment for Dispatch Center
Director Emergency Comm Ctr	226	Director's office to support file cabinets, closet space etc.
Empty Office	145	
Conference Room	337	
Empty Office/Storage	107	
Secure files and office supplies	143	
Empty Office	166	
Empty Office	253	
Dispatch Supervisor Offices	239	One office for day and one for night supervisor
Facility Engineer	118	
Training Room	174	
Total Room Space	4,270	
Shared Circulation	1,730	
Total Space	6,000 sq ft	Est cost/sq ft (\$350): \$2,100,000 Budget includes a 4,000 square foot area which was anticipated to support the initial transition of 8 communities. We have provided an expanded facility layout for conceptual purposes only.

Table 6-5: Preliminary Space Planning for County Dispatch Center

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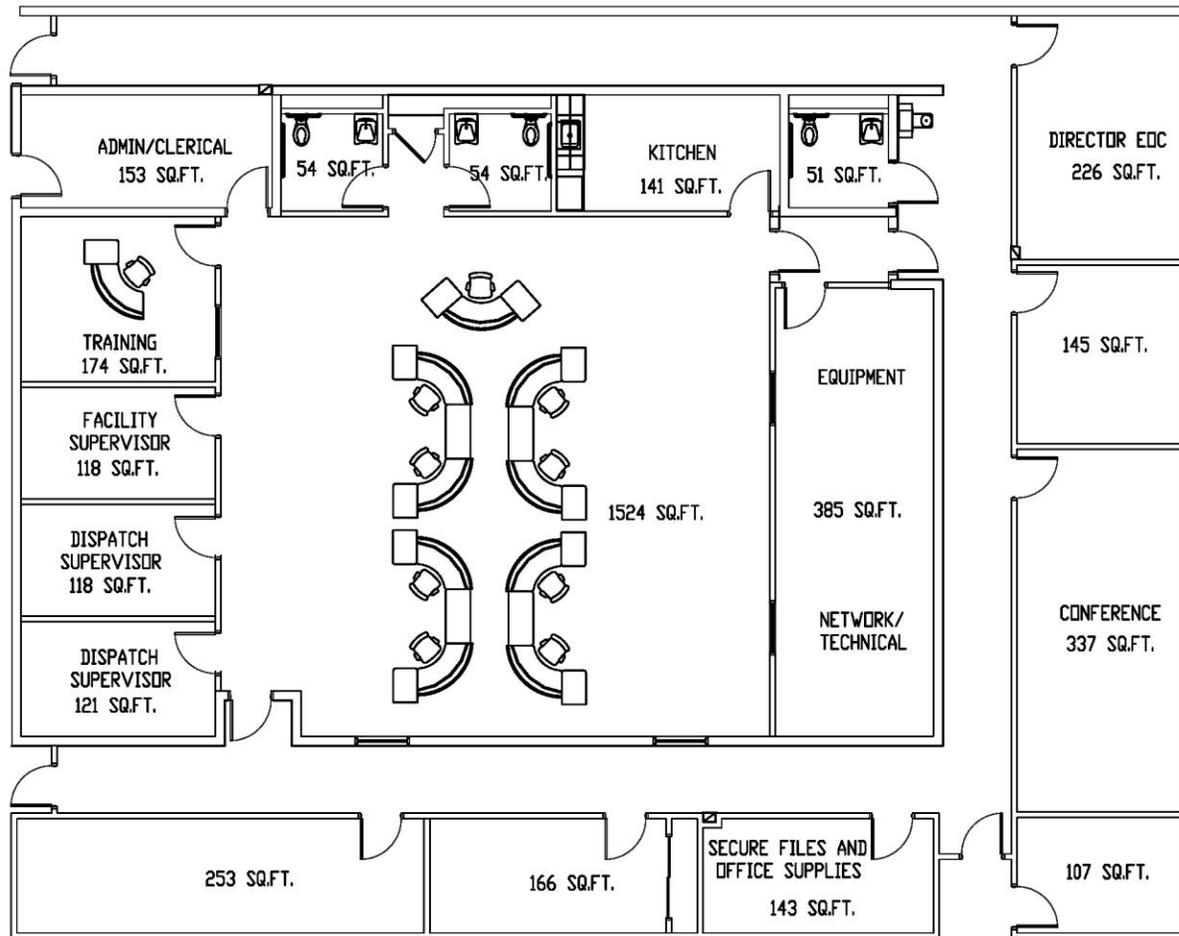


Figure 6-4: Conceptual Regional Dispatch Center

Appendix A: Detailed Staffing Analysis

Appendix A: Detailed Analysis of Staffing Models

A.1 Staffing Model: One County Communications Center

A fully consolidated regional communications center in Cape May County would be responsible for answering calls and dispatching for the estimated call volume below.

	E911 Calls	Police CAD	Fire CAD	Medical CAD	Total Estimated CAD (CFS Incidents)	Total Call Volume (CAD Increased 1.3 for Admin.)
Cape May County ECC	1,261	0	0	0	0	1,261
Avalon	2,781	29,776	252	733	30,761	39,989
Belleplain	3,638	1,000	304	3,575	4,879	6,343
Cape May City	3,545	23,917	323*	1,149*	25,389	33,006
Lower Township	10,120	36,872	591	2,178	39,641	51,533
Middle Township	12,901	38,309	728	3,326	42,363	55,072
Ocean City	15,627	44,454	1,132*	4,017*	49,603	64,484
North Wildwood+	5,078	23,917	323	1,149	25,389	33,006
Sea Isle City+	2,875	20,354			20,354	26,460
Stone Harbor	957	12,809	109	201	13,119	17,055
Wildwood	12,472	48,927	411*	1,458*	50,796	66,035
Wildwood Crest	3,720	25,326	217	779	25,326	32,924
Total	74,975	305,661	4,390	18,565	327,620	427,167

Table A-1: County Call Volumes 2012 (Wildwood Crest data from 2011, Sea Isle City from 2009)

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As described in Volume III, "Staffing", the model below shows the number of full-time call takers and dispatchers that would be needed for this call volume.

Line	Element/Description	Call Taker 2 Minute Average		Winter Model Dispatcher 4 Minute Average		Summer Model Dispatcher 4 Minute Average	
		Total Call Volume		Dispatch 911		Dispatch Police CAD Volume	
	Workload	Total Call Volume		Dispatch 911		Dispatch Police CAD Volume	
A	Total Call Volume per Year	427,167		74,975		305,661	
B	Minutes per Call	2		4		4	
C	Calls per Hour (60/B)	30		15		15	
D	Workload in Hours (A/C)	14,239		4,998		20,377	
	Employee Availability						
E	Net Available Work Hours	1573		1573		1573	
	Agent Occupancy Rate (Assumes available working time/half hour)	0.75	0.90	0.75	0.9	0.75	0.9
F	True Available hours per Person (E*F)	1180	1416	1180	1416	1179.7	1415.7
G	Staff Needed						
H	FTE Base Estimate (D/G)	12.07	10.06	4.2	3.5	17.3	14.4
I	Turnover Rate (assumed to be 10%)	0.9	0.9	0.9	0.9	0.9	0.9
J	FTE's Required H* (1+(1-I))	13.28	11.06	4.66	3.88	19.00	15.83

Table A-2: Workload and Staffing Model

A.1.1 Proposed Staffing

Using these assumptions, we derived the following staffing ranges using 427,167 calls as the baseline for call taker work activity. We model two different assumptions for dispatcher activity: 74,975 E911 calls and 305,661 total Police CAD events. The result is a range of 11-13 call takers on staff and a range of 4-7 dispatchers in the winter season assumption based on E911 calls and 16-19 dispatchers in the summer season assumption based on all Police CAD events.

This leads to 21 to 34 total staff of call takers and dispatchers, based on season. Thus, we propose a model with 21 full-time dispatchers/call takers, 4 full-time dispatch supervisors, and 9 part-time staff during the summer season to cover 8 working positions.

Actual shift scheduling and assignments will require a more detailed assessment by the authorized Advisory Board to better evaluate the busy hour conditions of incoming call volume, emergency call volumes and discipline specific events, shift hours, squad/tour assignments and other factors as well as adhere to standards of best practices as outlined in NFPA 1221, APCO Project RETAINS (Project 40) and other critical industry guidelines.

Based on monthly E911 data and averages, we modeled the following scenarios as an example for determining positions in a County-wide Regional Communications Center. This model is based on the following call volume summary:

- Total call volume answered by call takers: 427,167 calls
- Total E911 calls received: 74,975 (estimate for winter staffing)
- Total Police Dispatch events: 305,661
- Total Dispatched events (Police, Fire, First Aid): 327,620

911 Busy Hour Data - 12 PSAPs:			
Average:	High '11 (Jun-Aug)	Mid '12 (May, Sept)	Low '12 (Oct-Apr)
Calls/Month	11,891	7,721	3,358
Calls/Day	396	257	112
Calls/Hour	17	11	5

Total Staffing Assumptions			
Summer Season Total Staff		Winter Season Total Staff	
Working Positions	8	Working Positions	5
Total Call Takers	14	Call Takers	13
Total Dispatchers	<u>20</u>	Dispatchers	<u>8</u>
Total	34	Total	21

Base Shift Position Staffing			
	Summer Season Shift	Mid-Season Shift	Winter Season Shift
	3 call takers	3 call takers	2 call taker
	3 LE dispatchers	2 LE dispatcher	1 LE dispatcher
	1 fire dispatcher	1 fire dispatcher	1 fire dispatcher
	1 working supervisor	1 working supervisor	1 working supervisor
	Total: 8 positions staffed	Total: 7 positions staffed	Total: 5 positions staffed

Table A-3: Staffing and Position Analysis for Full County Model

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For conceptual planning purposes, we developed the following proposal to adequately staff a proposed regional emergency communications center for Cape May County. Average salary data was used to calculate salary and a 33% benefit cost was used to estimate benefits at a regional center. The table is based on summer season total staff.

Staffing Titles	Quantity	Avg. Salary	Benefits	Extended Total
Management: Director Emergency Communications	1	\$129,000	\$42,570	\$171,570
Dispatch Supervisors	4	\$61,960	\$20,447	\$329,625
Administrative/ Clerical Support Supv	1	\$45,900	\$15,147	\$61,047
Admin/Clerical Support	2	\$37,900	\$12,507	\$100,814
Network and Technology	2	\$60,000	\$19,800	\$159,600
Facility Support	1	\$58,000	\$19,140	\$77,140
Quality Assurance and Training	1	\$46,300	\$15,279	\$61,579
Dispatchers/ Call takers	21	\$41,844	\$13,809	\$1,168,703
Part-Time Summer Staff	9	\$13,080		\$117,720
Total Center Staff	42			\$2,247,797

Table A-4: Proposed Staffing and Salary Guide – Based on Summer Call Volume

* **Existing Salary/Benefit Expense - Total Cape May County: \$4,756,902**

*NOTE: North Wildwood, Sea Isle City, Cape May City did not provide salary data. For analysis, IA estimated total budget for these towns and assumed 70% of total budget for personnel expense.

The above positions include 42 total staff in a County-Wide Regional Communications Center. Of this total, 30 Communications Officers are organized as call takers, Law Enforcement dispatchers, and Fire/EMS dispatchers and 4 are working supervisors.

This model assumes the County Regional Center is staffed year-round with the number of full-time employees required to meet the estimated mid-season demand and supplemented with professional part-time staff to handle the three months of summer call volume (June-August). Once operational, the County can choose the optimum mix of full-time versus part-time staff to handle the requirements of 34 call takers/dispatchers during the “resort” season.

Currently, excluding Belleplains’ 23 dispatchers, the 11 PSAPs across Cape May County are staffed with 59 full-time and 40 part-time call takers/dispatchers, for a total dispatch staff of 99, compared to the 42 recommended in a fully staffed full-time consolidated regional center. Depending on the model implemented (all full-time versus mix of full-time and part-time), the County could realize personnel savings ranging from \$2.1 to \$2.5 million annually.

A.2 Staffing Model: Barrier Island/Mid County Center (7 PSAPs)

We also considered an alternative model, in which only certain PSAPs participate in a regionalized center. This model assumes that the following communities join a regional Communications Center serving Cape May County: Cape May County, Cape May City, West Cape May, Lower Township, Middle Township, Wildwood, West Wildwood, Avalon, and Stone Harbor.

	E911 Calls	Police CAD	Fire CAD	Medical CAD	Total Estimated CAD (CFS Incidents)	Total Call Volume (CAD Increased 1.3 for Admin.)
Cape May County ECC	1,261	0	0	0	0	1,261
Avalon	2,781	29,776	252	733	30,761	39,989
Cape May City	3,545	23,917	323	1,149	25,389	33,006
Lower Township	10,120	36,872	591	2,178	39,641	51,533
Middle Township	12,901	38,309	728	3,326	42,363	55,072
Stone Harbor	957	12809	109	201	13,119	17,055
Wildwood	12,472	48,927	411	1,458	50,796	66,035
Total	44,037	190,610	2,414	9,045	202,069	263,951

Table A-5: Modified Call Volumes 2012 – Participating Communities

As described in the Staffing and Budget Deliverable, the model below shows the number of full-time call takers and dispatchers that would be needed for this call volume.

Line	Element/Description	Call Taker 2 Minute Average		Winter-Season Model Dispatcher 4 Minute Average		Summer-Season Model Dispatcher 4 Minute Average	
	Workload	Total Call Volume		Dispatch 911		Dispatch Police CAD Volume	
A	Total Call Volume per Year	263,951		44,037		190,610	
B	Minutes per Call	2		4		4	
C	Calls per Hour (60/B)	30		15		15	
D	Workload in Hours (A/C)	8,798		2,936		12,707	
	Employee Availability						
E	Net Available Work Hours	1573		1573		1573	
F	Agent Occupancy Rate (Assumes working time/half hour)	0.75	0.90	0.75	0.9	0.75	0.9
G	True Available hours per Person (E*F)	1180	1416	1180	1416	1180	1416
	Staff Needed						
H	FTE Base Estimate (D/G)	7.46	6.21	2.5	2.1	10.8	9.0
I	Turnover Rate (assumed to be 10%)	0.9	0.9	0.9	0.9	0.9	0.9
J	FTE's Required H* (1+(1-I))	8.20	6.84	2.74	2.28	11.85	9.87

Table A-6: Workload and Staffing Model

A.2.1 Proposed Staffing

Using these assumptions, we derived the following staffing ranges using 263,951 calls as the baseline for call taker work activity. We model two different assumptions for dispatcher activity: 44,037 E911 calls and 190,610 total Police CAD events. The result is a range of 7-9 call takers on staff and a range of 2-4 dispatchers in the winter season assumption based on E911 calls and 10-12 dispatchers in the summer season assumption based on all Police CAD events. This leads to anywhere from 17 to 21 total staff of call takers and dispatchers, based on season. Thus, we propose a model based on 13 full-time dispatchers/call takers, 4 full-time dispatch supervisors, and 8 part-time staff during the summer season to cover six working positions.

Actual shift scheduling and assignments will require a more detailed assessment by the authorized Advisory Board to better evaluate the busy hour conditions of incoming call volume, emergency call volumes and discipline specific events, shift hours, squad/tour assignments and other factors as well as adhere to standards of best practices as outlined in NFPA 1221, APCO Project RETAINS (Project 40) and other critical industry guidelines.

Based on monthly E911 data and averages, we modeled the following scenarios as an example for determining positions in a County-wide Regional Communications Center. This model is based on the following call volume summary:

- Total call volume answered by call takers: 263,951 calls
- Total E911 calls received: 44,037 (estimate for winter staffing)
- Total Police Dispatch events: 190,610
- Total Dispatched events (Police, Fire, First Aid): 202,069

911 Busy Hour Data – 12 PSAPs:			
Average:	High (Jun-Aug)	Mid (May, Sept)	Low (Oct-Apr)
Calls/Month	6,622	4,539	2,108
Calls/Day	221	151	70
Calls/Hour	9	6	3

Total Staffing Assumptions			
Summer Season Total Staff		Winter Season Total Staff	
Working Positions	6	Working Positions	4
Total Call Takers	9	Call Takers	9
Total Dispatchers	12	Dispatchers	7
Total	21	Total	16

Base Shift Position Staffing		
Summer Season Shift	Mid-Season Shift	Winter Season Shift
2 call takers	2 call takers	2 call taker
2 LE dispatchers	1 LE dispatcher	1 LE dispatcher
1 fire dispatcher	1 fire dispatcher	1 Working Supv./fire dispatcher
1 working supervisor	1 working supervisor	
Total: 6 positions staffed	Total: 5 positions staffed	Total: 4 positions staffed

Table A-7: Staffing and Position Analysis for Barrier Island/Mid-County Mode

For conceptual planning purposes, we have developed the following proposal to adequately staff an emergency communications center for Cape May County serving seven of the current PSAPs. Average salary data was used to calculate salary and a 33% benefit cost was used to estimate benefits at a regional center. The table is based on summer season total staff.

Staffing Titles	Quantity	Avg. Salary	Benefits	Extended Total
Management: Director Emergency Communications	1	\$129,000	\$42,570	\$171,570
Dispatch Supervisors	4	\$61,960	\$20,447	\$329,625
Administrative/ Clerical Support Supv	1	\$45,900	\$15,147	\$61,047
Admin/Clerical Support	1	\$37,900	\$12,507	\$50,407
Network and Technology	1	\$60,000	\$19,800	\$79,800
Facility Support	1	\$58,000	\$19,140	\$77,140
Quality Assurance and Training	1	\$46,300	\$15,279	\$61,579
Dispatchers/ Call takers	13	\$41,844	\$13,809	\$723,483
Part-Time Summer Staff	8	\$13,080		\$104,640
Total Center Staff	31			\$1,659,290

Table A-8: Proposed Staffing and Salary Guide – Based on Summer Call Volume

* Existing Salary/Benefit Expense – 7 PSAPs in Cape May County: **\$3,114,991**

Data based on: Cape May County ECC, Avalon, Lower Township, Middle Township, Stone Harbor, Wildwood, and estimated personnel expense for Cape May City.

The above complement of staff positions includes 31 total staff in a Partial-County Regional Communications Center. Of this total, 21 Communications Officers are organized as call takers, Law Enforcement dispatchers, and Fire/EMS dispatchers and supported by 4 working supervisors.

This model assumes the Barrier Island/Mid-County Center is staffed year-round with the number of full-time employees required to meet the estimated mid-season demand and supplemented with professional part-time staff to handle the three months of summer call volume (June-August). Once operational, the County can choose the optimum mix of full-time versus part-time staff to handle the requirements of 21 call takers/dispatchers during the “resort” season.

Currently, these 7 Cape May County PSAPs are staffed with 38 full-time and 24 part-time call takers/dispatchers, for a total dispatch staff of 62, compared to the 31 recommended in a fully staffed full-time consolidated regional center. Depending on the model (all full-time versus mix of full-time and part-time), the County could realize personnel savings ranging between \$1.1 and \$1.5 million annually.

A.3 Staffing Model: Fire/EMS Communications Center (Belleplain)

We also considered a Regional Fire/EMS Communications Center model, in which the 911 call answering remains with the local PSAPs and any Fire/EMS calls are transferred to the Regional Fire/EMS Communications Center for dispatching. Call volume in this model is assumed equal to the actual Fire and Medical incidents reported in CAD by each of the PSAPs. Data is provided by each PSAP; the (*) indicate estimated breakouts for Fire versus medical based on a total number provided by the agency.

	Fire CAD	Medical CAD	Total Estimated Fire/Medical CAD (CFS Incidents)
Cape May County ECC	0	0	0
Avalon	252	733	985
Belleplain	304	3,575	3,879
Cape May City	323*	1,149*	1,472
Lower Township	591	2,178	2,769
Middle Township	728	3,326	4,054
Ocean City	1,132*	4,017*	5,149
North Wildwood+	323	1,149	1,472
Sea Isle City+	N/A	N/A	N/A
Stone Harbor	109	201	310
Wildwood	411*	1,458*	1,869
Wildwood Crest	217	779	996
Total	4,390	18,565	22,955

Table A-9: Modified Call Volumes 2012 – Regional Fire/EMS Dispatch

As described in the Staffing and Budget Deliverable, the model below shows number of full-time dispatchers needed for this call volume. We do not show call takers since we assume in this model the call-taking occurs in each PSAP. The dispatch staffing is in addition to the call-taker/dispatch that currently supports each Police Department and would continue in that position for 911/administrative call taking and law enforcement dispatch.

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Line	Element/Description	Shorter-Duration Dispatch		Longer-Duration Dispatch	
		8-minutes		12-minutes	
	Workload				
A	Total Call Volume per Year	22,955		22,955	
B	Minutes per Call	8		12	
C	Calls per Hour (60/B)	7.5		5	
D	Workload in Hours (A/C)	3,061		4,591	
	Employee Availability				
E	Net Available Work Hours	1573		1573	
F	Occupancy Rate (Working time/half hour)	0.75	0.9	0.75	0.9
G	True Available hours per Person (E*F)	1180	1416	1180	1416
	Staff Needed				
H	FTE Base Estimate (D/G)	2.6	2.16	3.9	3.24
I	Turnover Rate (assumed to be 10%)	0.9	0.9	0.9	0.9
J	FTE's Required H* (1+(1-I))	2.85	2.38	4.28	3.57

Table A-10: Workload and Staffing Model**A.3.1 Proposed Staffing**

Using these assumptions, we derived the following staffing ranges using 23,000 calls as the baseline for dispatcher work activity. We model two different assumptions for dispatcher activity, based on duration of involvement in the call: 8-minutes and 12-minutes. *The result is a range of 2-4 total dispatch staff based on the empirical model derived from actual Fire and EMS CAD events.*

We realize this empirical result cannot be sustained in reality, and we have assumed eight dispatchers in addition to Belleplains' existing staff.

Actual shift scheduling and assignments will require a more detailed assessment by the authorized Advisory Board to better evaluate the busy hour conditions of incoming call volume, emergency call volumes and discipline specific events, shift hours, squad/tour assignments and other factors as well as adhere to standards of best practices as outlined in NFPA 1221, APCO Project RETAINS (Project 40) and other critical industry guidelines.

We modeled the following scenarios as an example for determining positions in a County-wide Regional Communications Center.

Total Staffing Assumptions			
Summer Season Total Staff		Winter Season Total Staff	
Additional Working Positions	2	Working Positions	2
Total Call Takers	At Local PSAP	Call Takers	At Local PSAP
Total Dispatchers	8	Dispatchers	8

Table A-11: Staffing and Position Analysis for Regional Fire Dispatch

For conceptual planning purposes, we have developed the following proposal to adequately increase the Belleplains staff to become a regional Fire/EMS Dispatch Center for Cape May County. Average salary data was used to calculate salary and a 33% benefit cost was used to

estimate benefits at a regional center. The table assumes management and facility support staff is already available at Belleplain with no increase in these functions.

Staffing Titles	Quantity	Avg. Salary	Benefits	Extended Total
Management: Director	Existing staff			
Dispatch Supervisors	Existing staff			
Admin/Clerical	Existing staff			
Network and Technology	Existing staff			
Facility Support	Existing staff			
Quality Assurance and Training	Existing staff			
Dispatchers/ Call takers	8	\$41,844	\$13,809	\$445,224
Total Additional Center Staff	8			\$445,224

Table A-12: Proposed Staffing and Salary Guide – Increase Dispatchers at Belleplain

This model assumes the Regional Fire/EMS Communications Center is staffed year-round with the number of full-time employees required to meet summer season call volume.

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A.4 Staffing Model: Small Two-PSAP Consolidation

We also considered a model of a small, multiple-PSAP consolidation. Avalon and Stone Harbor expressed interest in consolidating their communication center into the Avalon PSAP to share existing costs and create a pool of dispatchers who can work together. We evaluated this scenario using our empirical model.

	E911 Calls	Police CAD	Fire CAD	Medical CAD	Total Estimated CAD (CFS Incidents)	Total Call Volume (CAD Increased 1.3 for Admin.)
Avalon	2,781	29,776	252	733	30,761	39,989
Stone Harbor	957	12,809	109	201	13,119	17,055
Total	3,738	42,585	361	934	43,880	57,044

Table A-13: Modified Call Volumes 2012 – Participating Agencies

As described in the Staffing and Budget Deliverable, the model below shows the number of full-time call takers and dispatchers that would be needed for this call volume.

Line	Element/Description	Call Taker 2 Minute Average		Winter- Season Model Dispatcher 4 Minute Average		Summer- Season Model Dispatcher 4 Minute Average	
		Workload		Dispatch 911		Dispatch Police CAD Volume	
		Total Call Volume		Dispatch 911		Dispatch Police CAD Volume	
A	Total Call Volume per Year	57,044		3,738		42,585	
B	Minutes per Call	2		4		4	
C	Calls per Hour (60/B)	30		15		15	
D	Workload in Hours (A/C)	1,901		249		2,839	
	Employee Availability						
E	Net Available Work Hours	1573		1573		1573	
F	Agent Occupancy Rate (Assumes working time/half hour)	0.75	0.90	0.75	0.9	0.75	0.9
G	True Available hours per Person (E*F)	1180	1416	1180	1416	1180	1416
	Staff Needed						
H	FTE Base Estimate (D/G)	1.61	1.34	0.2	0.2	2.4	2.0
I	Turnover Rate (assumed to be 10%)	0.9	0.9	0.9	0.9	0.9	0.9
J	FTE's Required H* (1+(1-I))	1.77	1.48	0.23	0.19	2.65	2.21

Table A-14: Workload and Staffing Model

A.4.1 Proposed Staffing

Using these assumptions, we derived the following staffing ranges using 57,044 incoming calls to be answered and 42,585 calls as the baseline for dispatcher work activity. Based on data from the two PSAPs, they received only 3,738 E911 calls in total. The call volume is too low to justify a separation of call takers from dispatchers. The empirical model results in a range of 3-5 total staff.

We realize this empirical result cannot be sustained in reality, and we have assumed eight full-time staff, working as call takers/dispatchers, with two Communications Officers scheduled per shift.

Based on monthly E911 data and averages, we modeled the following scenarios as an example for determining positions in a consolidated center between Avalon and Stone Harbor. This model is based on the following call volume summary:

- Total incoming call volume to be answered by Communications Officers: 57,044 calls
- Total E911 calls received: 3,738 (estimate for winter staffing)
- Total Police Dispatch events: 42,585
- Total Dispatched events (Police, Fire, First Aid): 43,880

Actual shift scheduling and assignments will require a more detailed assessment to better evaluate the busy hour conditions of incoming call volume, emergency call volumes and specific events, shift hours, squad/tour assignments and other factors as well as adhere to standards of best practices as outlined in NFPA 1221, APCO Project RETAINS (Project 40) and other critical industry guidelines.

We modeled the following scenarios as an example for determining positions in a County-wide Regional Communications Center.

Total Staffing Assumptions			
Summer Season Total Staff		Winter Season Total Staff	
Working Positions	2	Working Positions	2
Total Staff (Call-Takers/Dispatchers)	8	Total Staff (Call-Takers/Dispatchers)	6
Total	8	Total	6

Table A-15: Staffing and Position Analysis for Two-Center Consolidation

For conceptual planning purposes, we have developed the following proposal to staff an emergency communications center serving these two existing PSAPs. Average salary data was used to calculate salary and a 33% benefit cost was used to estimate benefits at a regional center. The table is based on summer season total staff.

Since this PSAP will be within the management structure of the Avalon Police Department, we assume there will not be a dedicated center director, administrative, or facility and technological support staff, as these functions are provided within the organizational structure of the Police Department.

Staffing Titles	Quantity	Avg. Salary	Benefits	Extended Total
Management: Director Emergency Communications	0	129,000	\$42,570	0
Dispatch Supervisors	2	61,960	\$20,447	164,812
Administrative/ Clerical Support Supv	0	45,900	\$15,147	0
Admin/Clerical Support	0	37,900	\$12,507	0
Network and Technology	0	60,000	\$19,800	0
Facility Support	0	58,000	\$19,140	0
Quality Assurance and Training	0	46,300	\$15,279	0
Dispatchers/ Call takers	6	41,844	\$13,809	333,915
Part-Time Summer Fille	0	13,080	0	0
Total Center Staff	8			498,727

Table A-16: Proposed Staffing and Salary Guide

* Existing Salary/Benefit Expense – Avalon and Stone Harbor

\$721,408

The above complement of staff positions includes eight total staff in a center serving both Avalon and Stone Harbor. This model assumes the Center is staffed year-round with the number of full-time employees required to meet summer season call volume.

Currently, these two PSAPs are staffed with 6 full-time and 8 part-time call takers/dispatchers, for a total dispatch staff of 14. Based on the empirical model, the incremental increase in call volume from combining the two centers does not justify a significant change in staff. We are proposing a model based on 8 full-time staff, year-round. If necessary, the joint PSAP could add 3-4 part-time staff during the summer, although the empirical data does not support the need for this additional staff.

Depending on the model implemented (all full-time versus a mix of full-time and part-time), these two short towns could realize personnel savings of slightly over \$200,000; this does not include the cost of equipment upgrades and changes that would be required for the initial set-up of a consolidated center.

A.5 Proposed Executive, Administrative, and Support Staffing

In each of the PSAPs currently operating in Cape May County, the reporting structure is fairly flat with a limited span of authority relative to the dispatch function. Generally, dispatchers fall into two categories – either Communications Officers/Dispatchers or Senior Communications Officers/Supervisors - with direct reporting into a Shift Sergeant and through the organizational command of law enforcement. Similarly for the County ECC's organization, dispatchers report into the County Emergency Management command position with a civilian dispatch supervisor providing direct supervision and support to the county dispatch team.

All other support functions for clerical, administrative and technical services are provided by dispatchers, the municipal government or directly through the Police Department. Operationally, staffing is sparse with the expectation that dispatchers will be the catch-all for the greater proportion of support services they require.

The proposed staffing configuration alleviates the burden for dispatchers to provide their own support services and includes the appropriate functions to support a self-sustaining organization without the need to rely upon outside departments for human resource support, training, technical, administrative, and clerical or facility support. Further, a dedicated executive function has been identified that enables participating agencies to collaborate and set the tone and direction of the Center.

The anticipated reporting relationships will be directly tied to the agreed upon governance which will ultimately be determined by the participating agencies.

As part of this discussion we have identified the following staffing functions and salary ranges:

- **Director of Dispatch Communications Center:**

Management position responsible for establishing and maintaining an E911 regional fire, police, and medical central dispatch center which will serve police and fire agencies in the region. The Director will work under the general supervision of an Advisory Board and will work with the Advisory Board to develop policies and procedures, annual budget and other related duties for the effective and efficient operation of the Center. The successful candidate should possess proven management skills, prior experience in managing a multi-disciplined dispatch communications center and a strong technical background in radio communications and relevant computer systems and software.

Average Compensation: Ranges from \$ 85,000 - \$129,000 based upon experience annually

- **Dispatch Center Shift Supervisor**

The Dispatch Center Shift Supervisor will oversee the inbound and outbound public safety, fire and medical communications, radio and data communications including routine and emergency phone calls, alarm monitoring, video security, radio, and connections to state, regional and federal computer systems and radio networks. When necessary, the Dispatch Center Shift Supervisor supplements scheduled staff in call answering or dispatching. Reporting to the Director of the Communications Center, each Shift Supervisor oversees the personnel and technology of the Communications Center, and communications systems used department-wide. The most important function of the Supervisor is the implementation of standards and the continual monitoring of performance, reinforcing and recommending initial and ongoing training programs needed to ensure the excellence of the communication function.

Average Compensation: Ranges from \$29,168 - \$72,744; Model assumes average loaded salary of \$61,960.

- **Telecommunications Officer/ Dispatcher**

Receiving and dispatching emergency information messages over a combined public safety 911 communication systems to police and fire resources. Call takers answer incoming 911 calls and administrative/10-digit calls, entering call information into a computer system, transferring emergency calls to dispatchers, transferring administrative calls to the appropriate department, and answering informational requests. Dispatcher will make decisions in response to emergency calls involving police assistance, fire assistance, medical emergencies, and ambulance service calls. Dispatchers receive radio calls from emergency responders and provide information to assist with the response. Dispatchers provide emergency medical dispatch for calls involving critical illness or injury, dispatch these calls via radio, or computer aided dispatch system to the proper responding personnel, and log all information received and dispatched. Dispatchers obtain pertinent information such as the nature of incident, location, units needed, complainant's information, etc. Must have an Emergency Telecommunicator Certification. Career path levels typically progress from trainee to Communications Officer/Telecommunicator to Senior Public Safety Officer.

Average Compensation: Ranges from \$11,748 - \$59,248; Model assumes average loaded salary of \$41,844 annually

- **Radio/Data/IT Technical Support**

- Perform site integration support duties by validating and testing RF distribution, controllers, repeaters, and internal LAN connectivity hardware.
- Complete programming support functions and network equipment programming duties.
- Perform radio frequency spectrum management needs and complete interference analysis to identify sources of interference and intermodulation and then recommend corrective actions.
- Knowledge of radio systems to provide in house and technical field support.

- Assist with ongoing IT projects; Coordinate with vendor and client on server and network related problems
- Provide first level troubleshooting support
- Install operating systems and required software for employees
- Complete test technician functions for regular operations as needed.

Position requires technical background of at least 2 + years of experience as an engineering technician with previous RF site equipment training or knowledge of RF products lines.

Average compensation: Average loaded salary is estimated to be \$60,000

- **Administrative Support**

The Administrative Services Coordinator performs a variety of administrative functions and provides administrative support to the entire staff. The Administrative Services Coordinator reports to the Center Director. During the start-up phase of the Center, this function will provide record keeping support and coordination for training, staffing and other administrative support requirements as deemed necessary by Center Director.

Average Compensation: Based upon salary of \$35,000 - \$50,000 annually

- **Building Service Technician**

Technician performs troubleshooting, replacement, repair and preventative maintenance of HVAC, electrical, plumbing and life safety systems. Operates HVAC and energy management systems, perform water treatment testing. Perform Log/Tour/Watches. Assist with administrative, training and management functions. Complies with all OSHA regulations and any applicable laws regarding health, safety, or environment. Orders maintenance supplies. Installs new appliances as necessary. Consults with Emergency Communications Director on major repairs, replacements and/or contracts.

Average Compensation: Based upon salary of \$40,000 - \$60,000 annually

- **Emergency Communications and Quality Assurance Coordinator**

The Emergency Communications and Quality Assurance Coordinator provides operational support by supervising and monitoring the performance of employees for call taking, emergency medical dispatch protocols and dispatching skill set for the purpose of maintaining a high level of service to the community and emergency responders. This work involves developing and implementing effective standard operating procedures, reviewing and analyzing center operations, supervising and evaluating staff, and preparing recommendations for technical training, procedural changes and improvements. The work is performed under the general supervision of the Emergency Communications Director

Average Salary Range: Model assumes average loaded salary of \$46,300 annually

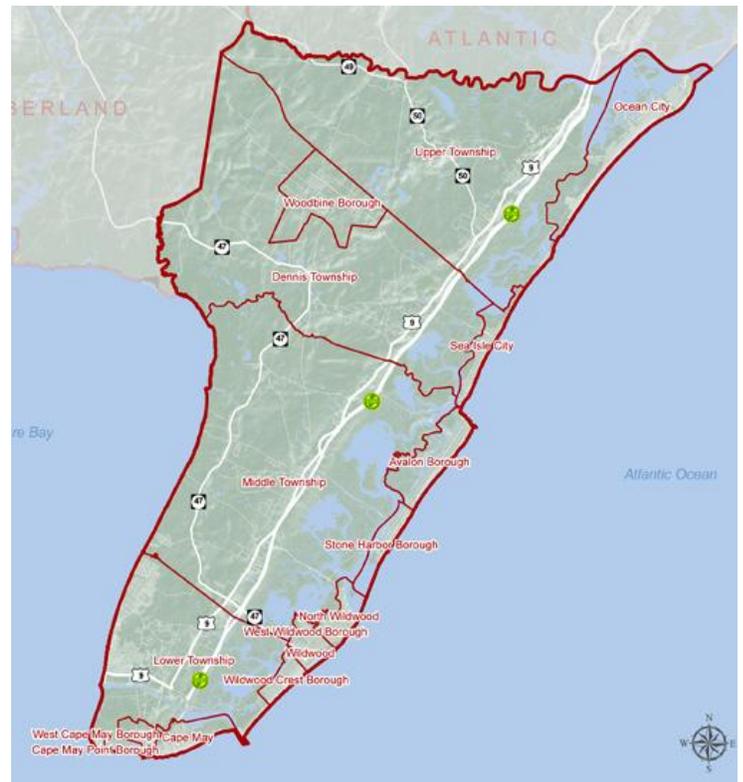
Appendix B: Existing Condition Reports for Each PSAP

Appendix B: Existing Condition Reports for Each PSAP

This Appendix of the report includes a detailed summary of each PSAP in Cape May County, addressing each PSAP's current operational and functional environment and provides details of existing procedural, technical, operational, functional and management conditions, as well as highlights of comments from interviews with staff at each PSAP.

This Appendix is organized in the following order, starting with the County's EOC then proceeding clockwise from the northeast corner of the County:

1. Cape May County EOC
2. Ocean City/Upper Township
3. Sea Isle City
4. Avalon Borough
5. Stone Harbor Borough
6. North Wildwood
7. Wildwood City/West Wildwood
8. Wildwood Crest Borough
9. Cape May City/West Cape May
10. Lower Township
11. Middle Township
12. Belleplaine



Cape May County, New Jersey Existing Conditions Assessment

App-B: 1.0 Cape May County PSAP

1.0 Cape May County Communications Center

1.1 Cape May County PSAP Overview

The Cape May County Emergency Management Communications Center serves as the back-up system for the eleven local PSAP's that operate within Cape May County. Created in 1992, the PSAP provides call answering and call back services to each of the PSAP's in overflow conditions or in the event that local PSAP's require emergency support services. The Garden State Parkway is the major artery through the County which is heavily travelled during summer months. Generally, the Cape May Emergency Management Center is not impacted by the fluctuations in tourist population that occur elsewhere within the county although there is an increase in call volume and overall County activity as may be expected during the peak tourist season.

As of the 2010 United States Census, there were 97,265 people within the County, slightly down from the 2000 Census of approximately 102,326 people which is down from the last census taken in 2000. The county is approximately 640 square miles and consists of 16 towns and 11 PSAP's providing emergency communications support to both the summer tourist population as well as full time residents. By comparison, Monmouth County a similarly sized county of 665 square miles has nine total PSAP's two of which are regional providing emergency communications dispatch services to a population in excess of 631,000.

PSAP	SERVING
Avalon Police Department	Avalon
Belleplain Emergency Corps	Dennis Township, Woodbine
Cape May City Police Department	Cape May City, Cape May Point, West Cape May
Lower Township Police Department	Lower Township
Middle Township Police Department	Middle Township
North Wildwood Police Department	North Wildwood
Ocean City Police Department	Ocean City, Upper Township, Strathmere
Sea Isle City Police Department	Sea Isle City
Stone Harbor Police Department	Stone Harbor
Wildwood Police Department	Wildwood, West Wildwood
Wildwood Crest Police Department	Wildwood Crest

Table 1-1: Cape May County Municipal PSAPs

Cape May County has commissioned several other regional dispatch studies in recent years which have not resulted in any significant movement towards this approach. This may have been in part due to the political environment of County stakeholders as well as a more pressing financial need that has become increasingly important than in previous

years. Generally, the current County management team is open to the concept of shared services where appropriately supported.

1.2 PSAP Call Processing

Cape May County Emergency Communications Center provides dispatch communications for County agencies including HAZMAT and dive teams as well as major incident support for State Police on the Garden State Parkway. Dispatchers provide response and are involved in ‘strike team’ communications for Fire and EMS services as well. Dispatchers can receive overflow 911 calls from any one of the eleven PSAP’s in operation within the County. Dispatchers will resolve the call, provide triage support or release the call. The call cannot be ‘patched’ back to the originating PSAP nor is the incident ‘dispatched’ from the County. County dispatchers must transfer emergency calls back to the originating PSAP for medical and fire call outs using administrative telephone lines as there is no ‘dedicated’ line to alert local dispatchers.

In addition to emergency communications calls, Center supports calls for the Sheriff’s department and all County agencies as well as supporting the Emergency Operations Center when it is activated for the County.

Cape May County	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2011	37	86	27	42	73	94	107	138	78	72	36	58	848
2012	19	23	70	53	101	125	104	153	160	156	246	51	1,261

Table 1-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

There is no local CAD data to draw data from however using the State 911 data the County Center experienced an increase in call volume during the peak summer months of June-August in 2011 and had considerable spikes in call volume throughout September through November 2012. The late October-Early November spike can be attributed to Hurricane Sandy which hit the New Jersey coast October 29, 2012 with unprecedented damage to the region.

On average, dispatchers monitor 12-plus radio units including the County Fire Marshall and fire tone out channels 6-10 UHF and VHF frequencies during a normal shift. Additionally, as there is few automation tools available, dispatchers must complete manual 911 Caller Information forms which is later filed in addition to County forms for HAZMAT and other manual record keeping tools. Dispatchers reported that there as many as twenty different forms that need to be completed based upon the initiating agency involved in the dispatch.

1.3 Dispatch Operations

The Cape May County Emergency Management Communications Center performs specific tasks in support of County services, Sheriff Officers, fire and E911 emergency

communications services which includes various data lookups for NCIC and license plate checks; mutual aid support and a small number of non-emergency tasks such as non-emergency call center.

Cape May County's dispatchers do not necessarily work as greeters as they are removed from public view.

Dispatchers are responsible for answering all overflow calls coming in on E911 trunks and 8 administrative phone lines in addition to monitoring and responding to County Sheriff personnel on up to six radio frequencies and monitor fire ground channels at fire events.

These and other activities dispatchers participate include:

- Communications support for the Cape May County Sheriff's Office. The Sheriff's Office consists of various teams as well as the Correction Center. Communications between various officers consists of Warrants Team serving warrants, Transport Team moving prisoners, K9 Unit, Park & Zoo officers and the ID Unit. Maintaining the daily shift records for the officers, provide NCIC ICJIS support such as driver's license look ups, wanted person's information, and answering/sending messages to other agencies.

Teams such as the K9 Unit respond to municipalities and other counties.

Dispatchers prepare call out which are WORD generated forms and when clear, keep track of their times and locations, and forward to the Sergeant when clear the scene. The Juvenile Transport team also is requested through the PSAP. On-call officers are contacted; reports are prepared and forwarded to the appropriate staff.

- Cape May County Health Department is requested after hours through the PSAP. There is a schedule of on call personnel that is updated monthly. On call person is contacted, report is prepared, and emailed to the appropriate people. The CBRNE Team (Chemical, Biological, Radio, Nuclear and Explosives) is also requested through the PSAP 24 hours, 7 days a week. On-call person contacted, DEP notifications, report prepared and emailed to the appropriate people.
- Cape May County Communications Van: Requesting agency, responder's times and location information are documented and filed within the PSAP. There is a nightly pager test that is performed also.
- CMC EMS Strike Team: The County has an EMS Strike Team that is available during large scale incidents. Agencies will contact CMC EMCC requesting a response. Operator. Dispatcher will then begin the notification process for the particular Team. Reports are prepared and filed within the PSAP. Operators are to notify the County EMS Coordinator, Emergency Management Director, Deputy Director and Emergency Management Communications Supervisor that a Strike Team is requested.
- Cape May County Fire Marshal is dispatched via radio and a telephone calling system. Reports are prepared with requesting agency, location, responder's time, and weather information. The reports are filed within the PSAP.

- CMC Fire Strike Team: Fire Strike Teams are requested during large scale incidents. A requesting agency will contact CMC EMCC. Operators notify the various municipalities of Strike Team request. A report is prepared and filed within the PSAP and with County Fire Coordinator. Operators are to notify the Fire Coordinator and other senior administrators that a Strike Team is requested.
- New Jersey Forest Fire is also requested by CMC EMCC. Notifications are made and proper reports are filed within the PSAP.
- Southern Regional Medical Examiner requests are made through CMC EMCC. A monthly on call schedule of investigators is available from which the dispatcher makes contact. The investigator is notified; report is prepared and filed within the PSAP.
- CMC MUA after hour's contact numbers are on file in the PSAP. On call personnel are notified of any alarms that CMC Prosecutors after hours contact numbers are on file in the PSAP. We are provided a weekly investigator and monthly attorney schedules. Operators contact the on call person, prepare report, and file within the PSAP. These requests are usually received after business hours, weekends, and holidays.
- CMC SART & SANE is a division of the Prosecutors Office. This is a Sexual Assault Response Team. Requests are made by municipal police departments or the local hospital for a SART Team response. We are provided a monthly schedule and will contact the on call person. A report is prepared and faxed to the SART Director.
- Rapid Response Team is available through the Prosecutors Office. Requests are made to the PSAP for the Rapid Response Team to be engaged when a large amount of police are needed for an incident. The PSAP will broadcast to all county police departments the information and location for staging. This information is updated every 20 minutes and until the team is cancelled. A report is prepared and a copy is sent to the requesting Chief of Police and the Prosecutors Office.
- Search Plan is a program of the Prosecutors Office. Requests are made to the PSAP for the Search Plan for officers to man a specific pre-determined location. Search Plan is usually requested during a bank robbery. A report is prepared and a copy is sent to the requesting Chief of Police and the Prosecutors Office.
- CMC Public Works on call contact numbers are on file in the PSAP. Requests are made to the PSAP after business hours, weekends, and holidays. Public Works includes the road department, traffic light, and bridge commission. Reports are prepared and filed within the PSAP.

Dispatcher Services and Tasks	Please check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering and transfer to PSAP	<u>X</u>
Provide EMD	<u>X</u>
Transfer to EMD Provider (Local PSAP)	<u>X</u>
County Sheriff Dispatch	<u>X</u>
Fire Strike Team Dispatch (tone or radio)	<u>X</u>
Medical Dispatch	
EMS Strike Team	<u>X</u>
Routine Public Safety Tasks	
Request assistance of Highway/DPW (after hours)	<u>X</u>
Request mutual aid/special services	<u>X</u>
Request wrecker assistance for Sheriff Officers	<u>X</u>
Request wildlife removal of County/State	<u>X</u>
Walk-in Requests for Medical Assistance	<u>X</u>
Monitor prisoners in holding cells and booking area	<u>X</u>
Assist in prisoner evacuation in case of emergency	
Process fingerprinting/fees	
NCIC lookups/Background checks	<u>X</u>
Enter warrants/restraining orders	
File Protective Orders	
Activate Knox Box keys for Fire Dept	
Non-Emergency Dispatch Tasks	
Town or County Non-Emergency Call Center	<u>X</u>
After hours pick-up/drop off for money and possessions	
Walk-in Requests for OEM related information	<u>X</u>
Walk-ins with lost/stray dogs	
Safe Haven	
Provide keys for elevator and building access	<u>X</u>
Maintain Parks and Recreation Permits	
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	
Assign officers to work vacancies	
Assignment of crossing guard posts	
Dispatcher Services and Tasks	
Please check all that apply	
Provide paychecks to crossing guards	
Collect time cards	
Coordinate functions during special events	<u>X</u>
POC for probation officers and meetings	
Electronically open/close sally port doors and prison cells	
Monitor/Receive incoming residential/commercial alarms	

Table 1-3: Listing of Dispatch Service

1.4 Staffing

The Cape May County Emergency Communications PSAP is authorized for 7 full time civilian call taker/dispatch staff working 8 hour shifts of midnight-8; 8AM-4PM; 4PM-Midnight. The day shift (8AM-4PM) is comprised mostly of two dispatchers as is the 4-midnight shift. There is a Communications Center supervisor that also provides support for Emergency Management. Although there is no dedicated position for training and quality assurance review of incidents, the Center Supervisor is tasked with this function. As a working supervisory function, though, it has been commented that it is difficult to manage and 'do' creating an additional challenge to this job.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	0
Operations Manager	0
Information Technology Coordinator	0
Training/Quality Assurance	Center Supervisor provides
Administrative Assistant	0
Shift Supervisor	1
Call Taker/Dispatcher (FT)	7
Call Taker/Dispatcher (Seasonal PT)	0
Shift Schedule:	8 hour shifts 8A-4P; 4P-midnight; midnight-8A
Total	8 FT

Table 1-4: FTE Equivalents and Authorized Staff

Cape May County Titles and Salary Ranges include the following titles and salary ranges:

- Public Safety Telecommunicator: \$26,930.79- \$50,592.88
- Senior Public Safety Telecommunicator: \$26,930.79- \$50,592.88
- Public Safety Telecommunicator Supervisor: \$29,168.00- \$55,535.36
- Chief of Telecommunicators: \$35,304 and maximum \$72,744

All dispatchers and supervisors are AFSCME Union members whose contract provides for overtime as well as health insurance benefits (medical, prescription, and optical). Plans vary according to needs and include single as well as family plans.

1.5 PSAP Capabilities

The Cape May County Communications Center has 2 working positions both of which are functional. The total 20x20 foot dispatch room includes a bathroom and requires rehabilitation and expansion to support anything more than the two active positions. Actual working space is more likely a 10x10 area that is cramped and is difficult to picture having more than two telecommunicators working in that space. At times the already cramped facilities are used during extreme emergencies to support as many as five call takers. The current console positions are five year old PlantCML that is not covered by Verizon's maintenance or repair.

Capabilities	County System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	CAD: Manual paper system RMS: none
Mapping	None
E-911 Consoles and Equipment	PlantCML
Radio Control Consoles and Equipment	Zetron

Table 1-5: Equipment Capabilities

1.6 Radio Systems and Frequencies

There are several options that can be developed or evolved into a wide area radio communications environment for Cape May County however there are no immediate viable systems that can be upgraded or expanded to achieve a county-wide service. The following are the current projects and systems in operation:

1.6.1 UHF Trunked System – Prosecutor's Office Pilot

There is a Cape May County Pilot Project that has is being run out of the Cape May County Prosecutor's Office. This P-25 trunked UHF non-T-band system P25 radio system is intended to serve as a pilot network for the purpose of demonstrating and assessing the systems technology in a real-world environment. This, in turn, would allow the County to evaluate its effectiveness and suitability in order to consider its likelihood for further implementation on a larger scale. The County is licensed for 10 channels but is only using 6 of the 10 channels on three tower sites.

They system is mostly used for data transmission by the MIS department of the Prosecutors office however; the system can be used as a county-wide radio system as the channels are licensed to the County.

The system is scheduled to be dismantled in April 2013 because the equipment from Power trunk was on a test program. Power trunk is receptive to having the County continue use of the system however, the system use as a wide area county communications tool was never implemented based upon decisions made within the Prosecutors office.

Regardless of whether the County chooses to continue with Power Trunk or not, the County should consider maintaining these frequencies as they are a highly valuable resource and provide superior coverage based upon the preliminary modeling performed by the IA Project Team.

As a wide area radio solution, this option has significant upside but a financial downside to consider as only Ocean City and Wildwood have UHF channels and subscriber units. The County Freeholder Board will be part of the decision process on how to re-use/re-allocate frequencies in a consolidated model.

Estimated cost of subscriber units is \$1,500-\$1,800 per unit as well as the on-going cost of system maintenance.

1.6.2 State Police 700/800 Radio System:

The County has identified the State Police 700/800 system as an option for developing a county-wide radio solution as the State has identified several tower locations that would enhance their coverage that are located within the County.

One option is for the County to become subscribers on the State Trunked system which would allow the County to develop their own talk groups in effect replicating their own 700/800 system. The primary challenge is the expense of subscriber equipment and the need for dual band radios in order to communicate with VHF users in the Fire Service. However, these costs may be offset by less expensive maintenance as support would come from the State Police for system troubleshooting, maintenance and upgrades.

Estimated cost of 700/800 subscriber units is \$3,000 per unit. Dual band radio's that may be required by select Fire Chief's for interoperability with other mutual aid fire agencies is \$6,000 per unit.

1.6.3 VHF Radio

The third option is to expand and re-design a wide area county VHF system as most of the county is already on VHF. This alternative may provide least expense in purchasing subscriber units as all but two towns operate on this band however, overall system maintenance and support would be required. Operating on this frequency band also allows for intra-county communications on a single band as all fire departments utilize VHF service.

Challenges to the current system include:

- Sporadic coverage as there are major dead spots throughout the county
- There is an in-car repeater system that works some days and doesn't work others, under the exact same conditions. It's a worry for operators and dispatchers due to the inconsistent service capabilities.
- Wildwood Convention Center does not carry the VHF signal although it will carry UHF
- Sheriff's department has two cars with on-board repeaters. This has created an obstacle to communicating requiring coordination to turn the repeaters on and off.
- Sheriff can talk to some towns, can't talk to others. The department has been told it's a programming issue.
- Sheriff's department has been told to transmit on VHF/receive on UHF. "Cross patch" through dispatch. This creates confusion as there are too many steps to use the system they've already have when all the dispatcher should have to do is key to the microphone

Cape May County operates on VHF frequencies using an island-wide channel and a county-wide channel for interoperability.

The following channels are in operation in Cape May County:

Frequency	License	Type	Tone	Alpha Tag	Description	Mode	Tag
154.085	KWQ678	RM	85.4 PL	OEM		FMN	Law Dispatch
153.935	KNJJ259	M		Wldwd PD 2		FMN	Law Tac
158.790	KNCD839	BM	118.8 PL	Wldwd FD/EMS		FM	Fire Dispatch
155.7900	KNCD839	RM	118.8 PL	Islnd Fire 3		FM	Fire-Tac
154.0250	KNCD839	BM	118.8 PL	Wldwd FD 4		FM	Fire-Tac
	KNJX314	BM	118.8 PL	Wldwd BP		FM	Public Works

Table 1-6: Radio Frequency Listing

1.7 Voice and Data Interoperability

There is no regional voice and data interoperability between Cape May County first responders and other disciplines within the County although the county does use a county-wide channel to communicate on dispatch to dispatch and dispatch to car. Voice interoperability could exist more than it does as most towns are UHF with the exception of Middle Township and some fire agencies.

An interoperability exercise was conducted last April 2012 which highlighted the areas of vulnerability for municipal and county dispatchers as well as service gaps. Two known weak spots were identified which include Woodbine and Lower Township.

1.8 Data Communications

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system, or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

The UHF test system that is due to be removed in April, now being used as a backhaul transmission network can provide the voice and data infrastructure needed to support a wide area data communications environment.

Although there is no county-wide CAD/RMS standard, most Cape May County towns operate on Enforsys CAD which would enable most legacy records to become available as on a historical basis. Going forward, the development of network and application standards will need to be identified and pursued in order to achieve a regional dispatch environment.

Wireless 911 mapping is available through Verizon on existing consoles however there is no county-wide GIS capability. This too will be required configured as part of the KML console however, going forward establishing an integrated CAD/RMS and mapping data tool for inter-jurisdictional and inter-discipline records management and resource mapping will require a regional needs assessment by agency and discipline to best establish the feature functionality and level of service to support each discipline in a regional setting.

1.9 Training

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the course of the year. Telecommunicators are required to recertify every other year. The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED) - Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch course are also offered. Dispatchers in Stone Harbor are all New Jersey State Certified Telecommunicators and are EMD trained.

Every year or two telcommunicators must be recertified which includes Emergency Medical Direction. EMD flip cards and protocols are issued under the State Department of Health. In Stone Harbor, due to its size, fire department units who monitor the radio frequencies are able to accelerate their response enabling them to arrive on scene shortly after a medical call is initiated. This typically limits the amount of EMD a dispatcher needs to become involved in. Some of the larger communities may require a greater degree of continuous medical direction to callers due to the time it takes to travel.

Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

1.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with the Cape May County staff discussing each of the aspects of the dispatch, staffing and technology. Through these various interactions specific areas of regionalization and its impact on local operations and residents was discussed. Benefits of regionalizing dispatch services were considered to be:

- Standardized training
- Cross training of multiple dispatchers
- Improved service levels
- Cost savings
- Better use of resources
- Development of standard operating procedures
- Shared maintenance of dispatch equipment
- Development of common records management systems and information systems
- Development of a state of the art facility

The corresponding drawbacks were noted as:

- Concern that residents won't want changes to the status quo
- Lack of dispatcher familiarity with 'our' town.
- Control of communications will not be in local hands
- Perception that there is no interest from local officials

During the on-site interviews, regionalized services were candidly discussed to try to ascertain the type of regional setting that could be envisioned for Cape May County. Based upon our on-site discussion it was believed that joining a regional model that offered two or three towns the opportunity to participate would be preferable initially however, the longer term thinking believed that a single consolidated environment can be a more effective means of providing dispatch communications – especially for the Fire Service. A common theme was for there to ultimately be a single site with a common management structure where perhaps an advisory board comprised of police and fire representatives would have the flexibility to address the issues and challenges of regional dispatch for Cape May.

To a large extent it is believed that the political environment within Cape May County has been the underlying reason why regionalizing has not gained sufficient traction in the region. As recent as three years ago, there was unanimous consent to develop a regional dispatch function.

Our general observation of the Cape May County PSAP is that it provides an important role as backup center however, that role is significantly limited by procedure as well as

technology tools so that dispatchers are not able to provide the full spectrum of services that they are no doubt capable of. This perception of being less capable is magnified by the procedural limitations imposed on County dispatchers when in fact they could become full partners in overflow conditions to provide essential EMD and medical dispatch as well as fire rescue support.

Despite the back seat function County dispatchers have played with local PSAP operations, dispatcher services are clearly needed in support of other County functions in particular Sheriff support services and county-strike teams. Depending upon the direction regionalization takes for Cape May communities, the current dispatch facility size and technological functionality will need to be re-examined with an eye towards greater efficiency and use of space. It is impractical for any more than two dispatchers to occupy and function with efficiency within the current Center due to space limitations. The cramped, outdated space poses distractions to the dispatchers who need to maintain communication control over events in extreme emergency conditions as well as under 'normal' emergency conditions.

While local residents may not think regionalization is achievable due to the 'unique-ness' of Cape May and the diversity between shore and mainland communities, the function of dispatching over large areas and demographics has been time tested across the country. A new freeholder board has expressed interest in hearing how the County can participate in some type of regional environment.

Governance and sustainability discussions with Cape May County and others involved in the study yielded an overall understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions. Much as the County led the way in developing a regional SWAT team, it may need to take a leadership position in developing the resources necessary for a successful regional dispatch center as well.

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1.11 Photographic Journal



Figure 1-1: View of Dispatch Center Positions

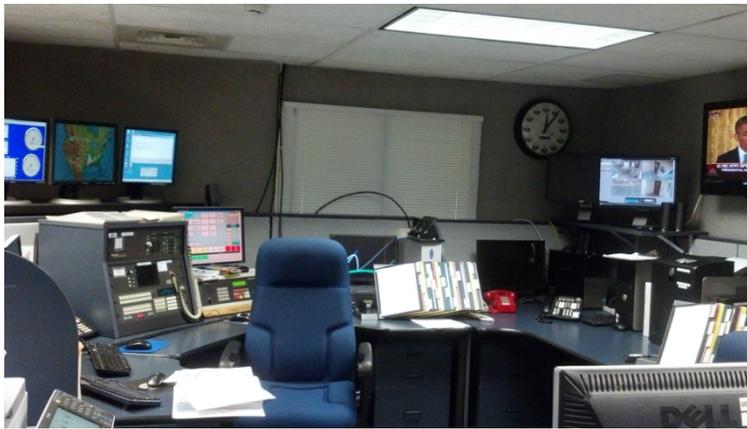


Figure 1-2: View of County Dispatch Room

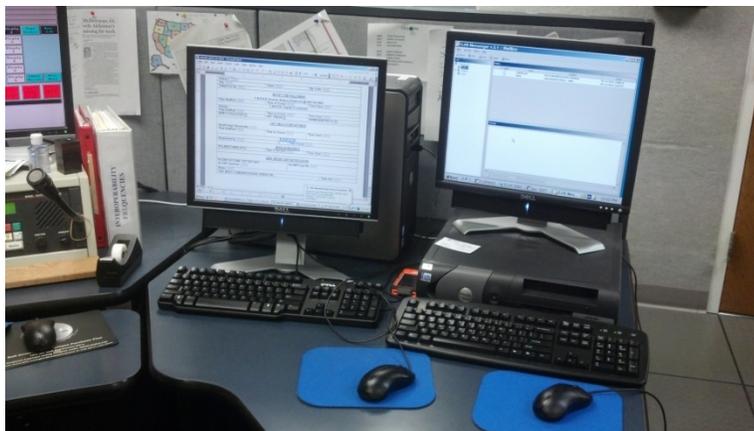


Figure 1-3: NCIC and local computers

Cape May County, New Jersey Existing Conditions Assessment

App-B: 2.0 Ocean City PSAP

2.0 Ocean City PSAP

2.1 Ocean City PSAP Overview

The Ocean City PSAP and Communications Center provides call answering and first responder emergency dispatch services to the Ocean City, Strathmere and Upper Township. Ocean City is Cape May County's largest city by area and is geographically located at the most northern tip of Cape May County. Ocean City is geographically cut off from its closest Cape May neighbors by the bay on the west side and Atlantic Ocean to the east and north requiring first responders to travel multiple bridges to gain access to the city. To a large extent, the geography has fueled the City's independence and need to be self-reliant from its Cape May neighbors for mutual aid and support as external conditions have shaped their actions. This circumstance has isolated Ocean City from Cape May and aligns the City more with its Atlantic County neighbors in many aspects of City operation. It has been said that Ocean City is 99% operationally part of Atlantic County and as such has been considered a standard for Atlantic County PSAPs. Given the bifurcated alignment, Ocean City is supportive of a regionalized dispatch environment in either of the Counties but believes that it would be best suited as a 'spoke' on the consolidation wheel as the City and Atlantic County have had active and on-going dialogue regarding shared services, regionalization of services, and other methods to reduce costs over the years.

Although Ocean City is considered to be a shore town, over the years it has evolved into a year round community with businesses and visitors using facilities throughout the fall and winter months. Its 2010 population based upon Census data is 11,701 although the summer population sky rockets to over 150,000.

Ocean City has a history of establishing shared service relationships among Cape May and Atlantic County communities and has made concerted efforts to identify potential venues for expanding its relationship where it is beneficial and relevant to all parties. Recent examples include:

- A merger of Sea Isle City 5-8th grade students into the Ocean City schools has been implemented. High School students from Sea Isle City already attend Ocean City Schools. Upper Township is a sending district to Ocean City Schools.
- Ocean City currently provides call answering and dispatch services for Upper Township's emergency communications. These emergency 9-1-1 services also includes Corbin City, Estelle Manor and Strathmere include police, fire and EMS call answering and dispatch

This is the fourth report in recent years that has been prepared to identify possible venues for shared service scenarios for emergency communications, which are being evaluated much the same way as other municipal services. Since the last report prepared and submitted in 2009, several components of the City's dispatch operation have evolved.

These include:

- Reassignment of Supervisory duties more consistent with a Communications Center
- Development of a Communications Supervisor title to provide career path and promotion opportunities
- Creation of career path for telecommunicator promotions

Ocean City's interest in determining the feasibility of developing a shared communications center is ultimately to enhance current service levels to all participants while reducing costs to themselves and participating communities.

2.2 PSAP Call Processing

Ocean City Police Department is organizationally responsible for housing the PSAP and providing call answering and emergency dispatch support for police, fire and medical assistance. Like the other Cape May county communities, Ocean City utilizes the County OEM Center as their back up PSAP which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center. .

Calls for Service	2011	2012	Percentage Change
Total 9-1-1 calls Received	14,120*	15,627*	9.6% change
Fire/Medical CAD Events	5,087**	5,149**	1 % change
Total Police dispatched incidents (CFS)**	43,428**	44,454**	2% change

Table 2-2: Calls for Service and Call Volume

*State 911 data based upon the number of ALI dips

**Ocean City local CAD data;

Total call volume ranges from 74,493 in 2011 and 80,293 in 2010 to 93,487 in 2012. The tremendous increase in calls is partially the result of Hurricane Sandy that hit the New Jersey coast over the Halloween weekend of 2012. Call volume for the ten day period from October 26 through November 5 for the storm alone generated approximately 532 calls daily and over 5,300 calls for the ten day period.

Based upon local 2012 CAD data, there were a total of 49,603 CAD events of which 44,454 were police related (90%): 5% each for fire and 5% medical. The preceding four years from 2008-2010 have resulted in similar statistics with approximately 48,515-52,238 calls for service. Police calls are about 90% of the calls for service; fire and medical are consistently around 5% of the volume of responses. Although not specifically counted, administrative call volume is estimated at 20 times that of emergency call volume especially during peak season.

On average, dispatchers may monitor up to 15 police units in the winter and as many as 35 police units in the summer. This is in addition to Fire/EMS and beach patrol and units. Ocean City operates with 2-3 dispatcher at all times and 3-4 during peak busy periods over the hectic summer months and special events.

Peak season comes early and stays late for Ocean City. Using 911 call volume it appears that Ocean City dispatchers will see increased activity from April through December, reinforcing the point that Ocean City is less of a summer-only vacation spot and more of a year round destination.

Ocean City	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2011	642	635	725	883	1219	1615	2351	2117	1151	1013	854	915	14120
2012	840	700	791	969	1315	2165	2099	2087	1651	1107	1024	879	15627

Table 2-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by the OETS, Ocean City has received 85% of its annual call volume during the same 'peak' months in 2011 and 2012. The 'season' for Ocean City is a bit different from other shore communities as it starts in April and runs through December. The Center's average busy day in 2012 was Saturday and busiest hours are 9PM with an average of 15-25 calls per hour during the busy shift. Average time to answer during normal conditions is 3 seconds and during busy hour it is 5 seconds. The average time to process a call from call answer to dispatch is 20 seconds according to information provided by Ocean City Police. Due to the rapid response of first responders, dispatchers do not have the opportunity to provide EMD as often to Ocean City residents as they do for Upper Township calls as it takes that much longer for Upper Township Fire/EMS units to reach the incident.

2.3 Dispatch Operations

The Ocean City Communications Center performs a diverse set of tasks in support of Law Enforcement, Fire and E911 emergency communications services for Ocean City, Upper Township including Strathmere and Corbin City. Dispatchers provide call answering and dispatch for Ocean City with call transfers of police calls to State Police for Corbin City and Upper Township for local dispatch. In addition to call answering and dispatch for adjoining communities, dispatchers support five fire departments, one police department, two EMS departments and animal control for Ocean City.

Ocean City Police have organizational control of dispatch however the center does not have an 'agency-specific' bias. As other dispatchers in Cape May County, Ocean City dispatchers instruct callers on emergency pre-arrival instructions until emergency response units arrive. This has included CPR, clearing obstructed airway, bleeding control, burns, seizures, childbirth and diabetic emergencies. Information is obtained and emergency responses are prioritized by dispatchers who are skilled enough to evaluate and act upon the most critical emergencies first. Telecommunicators are trained to handle difficult situations including hysterical callers, suicidal callers, children and hostage situations.

While all other high volume shore communities pride themselves on providing personalized services to their residents, Ocean City is able to provide that without having to use dispatchers. Desk officers are assigned to perform most look-ups for police including NCIC and vehicle look-ups and are often the first point of contact for walk-in's to the police department. As a result, few non-public safety tasks are assigned to dispatchers to support to provide substantial time to. A short list of these non-emergency tasks includes:

- Calls to utilities for lines down
- Senior call-out program
- 911 education in schools
- Dog license look-up

All calls for service are entered into a CAD system. Every responding unit is linked to the call entered and all times for the units are documented by dispatchers. The CAD system provides officers with case numbers, for reports and which are also used to perform searches for previous contacts of names and/or addresses provide special instructions to responder or advise them of any alerts on individuals or locations.

Ocean City's four-position center functions as a 'call hub' and administrative support center which processes every call coming into each of the three communities it supports. Dispatchers are responsible for answering four E911 trunks and ten administrative phone lines in addition to monitoring and responding to first responders on over twenty radios, page out's for fire or EMS calls. The telecommunicator has the ability to simulcast over multiple radios and also patch radios together for multi-jurisdictional interoperability.

Ocean City is a user on Atlantic County's 800 MHz radio system which offers users the ability to identify any radio user who declares an emergency. Telecommunicators can switch frequency bands to VHF subscribers through the console for dispatch to subscriber communication to the five Fire Departments, one Police Department, two EMS Departments, and animal control for Ocean City. They also actively monitor and respond/dispatch the following radios:

- Ocean City Police 800 channels
- Ocean City Fire/EMS radio
- Ocean City Fire Channel 2
- Ocean City Unicom (City Emergency Channel)
- Ocean City Beach Patrol
- Ocean City Public Works
- Cape Atlantic APB channel
- State Police Emergency Network 1
- All Upper Township radios
- Strathmere Fire radio

During the summer season dispatchers also dispatch Beach Patrol and can simulcast over four radio channels after paging the Fire/EMS Departments. These calls include water rescue events that involve notifications to Police, Fire, EMS, Beach Patrol, and Seasonal Law Enforcement Officers assigned to the boardwalk.

Additional dispatcher activity is required for the communities supported by the Ocean City Communications Center. Each community has specialized dispatch, paging, and event protocol supported through the Center.

2.4 Supervisor Tasks

The Ocean City Police Department has developed a full time position for a separate Dispatch Supervisor. This position is fully responsible for the management, scheduling, training, and staffing of the OCCC. The Supervisor also performs all duties of a Telecommunicator and often fills in as one of the seats for shifts where part-time support is not available.

The Supervisor's duties include a myriad of management functions to support daily events within the Center. These include:

- Police Department liaison to Upper Township Fire, EMS and Strathmere Fire, as well as other City departments
- Interviewing, hiring and processing all Communications employees
- Administering payroll for part-time dispatchers
- Handling all disciplinary matters involving Communications employees
- Training and/or coordinating training for new employees
- Maintaining State required documentation for the Center
- Preparing, authoring, and/or modifying policies and procedures for Communications employees
- Scheduling Communications employees to ensure minimum staffing requirements 24/7
- Approving/denying time off requests for Communications employees

The Center Supervisor reports to a Police Captain and ultimately the Police Chief. Under this arrangement, the Dispatch Supervisor is often involved in establishing procedural and operational nuances that each agency requires that the Center supports. For Ocean City, it requires a separate discussion with the Ocean City Fire Chief that at times conflicts with the chain of command that dispatch falls under. The Dispatch Supervisor supports many non-dispatch related duties. Many if not all of these functions are required in support of a Communications Center; however most could be reassigned to personnel with dedicated time to support these functions. These tasks include but are not limited to:

- Serving as Assistant System Administrator of Computer System for Police Department CAD/Records Management System
- Providing On-Call 24/7 resolution for any Communications Center issues – staffing, equipment problems, etc. as well as any Police Department radio/telephone/computer issue
- Ensuring proper operation and maintenance of all telecommunications systems in the Center (9-1-1, radio consoles, computers, telephones, recorder, etc.)
- Handling all issuing, repair requests, and programming for Police Department portable and mobile radios
- Assisting officers with ATS/ACS login and program access
- Training Police employees with CODY Computer

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- Training Police employees with radio operations
- Assisting System Administrator with computer hardware problems/acquisition for the entire Police Department
- Preparing statistical reports for the Chief of Police, Captain of Police or any other Police employee when requested
- Preparing reports for the Fire/EMS Chief
- Serving as point of contact for all vendors regarding radios, telephone, and other Communications technology
- Serving as Evidence Custodian for recordings made in the Communications Center
- Testifying in court relating to Communications and/or recordings
- Ensuring adherence to all policies and procedures
- Maintaining digital cameras for the Police Department and linking evidentiary photographs with their respective incident reports
- Assisting records and/or Chief's office personnel as needed

Ocean City officials believe that regionalization may offer operational benefits to the City's first responders and is open to hearing alternatives. However, given the year round nature of the City and in recent years an increase in off-peak tourism, along with the well-established procedures within the center there would need to be a significant advantage to Ocean City to justify transitioning to a regional center.

Organizationally, there could be morale improvement and increase in operational effectiveness if the chain of command for dispatch services were 'agency agnostic'. Current operation appears seamless even under extreme emergency conditions as dispatchers are well schooled on how to handle house fires, medical conditions and other emergency responses as second nature.

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The following is a chart of activities performed by Ocean City dispatchers:

Dispatcher Services and Tasks	Check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering	<u>X</u>
Provide EMD	<u>X</u>
Transfer to EMD Provider	
Police Dispatch	<u>X</u>
Fire Dispatch (tone or radio)	<u>X</u>
Medical Dispatch	<u>X</u>
Ambulance Call Out to surrounding Towns	<u>X</u>
Routine Public Safety Tasks	
Request assistance of Highway/DPW	<u>X</u>
Request mutual aid/special services	<u>X</u>
Request wrecker assistance	<u>X</u>
Request wildlife removal	<u>X</u>
Walk-in Requests for Medical Assistance	<u>X</u>
Monitor prisoners in holding cells and booking area	<u>X</u>
Assist in prisoner evacuation in case of emergency	
Process fingerprinting/fees	
NCIC lookups/Background checks	
Enter warrants/restraining orders	
File Protective Orders	
Activate Knox Box keys for Fire Dept	
Non Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	<u>X</u>
After hours pick-up/drop off for money and possessions	
Walk-in Requests for advice/information/complaints/directions/town functions	
Walk-ins with lost/stray dogs	
Safe Haven	
Provide keys for elevator and building access	<u>X</u>
Maintain Parks and Recreation Permits	
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	
Assign officers to work vacancies	
Assignment of crossing guard posts	<u>X</u>
Dispatcher Services and Tasks	
Provide paychecks to crossing guards	
Collect time cards	
Coordinate functions during special events	
POC for probation officers and meetings	
Electronically open/close sallyport doors and prison cells	
Monitor/Receive incoming residential/commercial alarms	<u>X</u>
Calls to utilities for lines down	<u>X</u>
Senior call-out program	<u>X</u>
911 education in schools	<u>X</u>
Dog license look-up	<u>X</u>

Table 2-3: Listing of Dispatch Services

2.5 Staffing

Ocean City Communications Center is comprised of one (1) full time supervisor, nine (9) full time Public Safety Telecommunicators, and seven (7) active part time Public Safety dispatchers with two in training. Organizationally, the chain of command for the Ocean City Communications Center is to a Police Captain and ultimately to the Chief of Police. The Department is run by a civilian dispatch supervisor with over 17 years of experience supervising nine full time employees and as many as 10 part time employees.

When fully staffed, 24 dispatch staff members are available to support the two (2) twelve hour shifts, aligned by police squads A and B. This is done to increase familiarity between police and dispatch staff and improve mutual understanding of operations and individual shift requirements.

The 24-person staff includes a full time supervisor whose responsibilities include training, quality control, and radio support (without additional support staff). Technology support of the Center is provided by an independent employee with back up support provided by the Dispatch Center Supervisor.

The Center is staffed 24 hours a day, seven days a week with a minimum staffing of two dispatchers. During the summer season, the Center has a minimum staff of three dispatchers and at times there are four dispatchers in extreme conditions and peak busy hours.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	0
Operations Manager	0
Information Technology Coordinator	1-Independent Employee
Training/Quality Assurance	1 – Dispatch Supervisor
Administrative Assistant	0
Shift Supervisor	0
Call Taker/Dispatcher (FT)	10
Call Taker/Dispatcher (PT)	7
Shift Schedule:	12 hour shifts 7A-7P; 7P-7A; 2P- Midnight
Total	12 FT; 7 PT staff

Table 2-4: FTE Equivalents and Authorized Staff

The 2012-2014 contract is approved but not signed includes a pay scale for the Communications Officer trainee begins at \$ 33,850 per contract for one year. After one year the State Civil Service contract allows for a promotion and salary increase to \$40,954. This base salary is given to experienced dispatchers that don't have the trainee title. Full time employees hired after 2009 do not receive longevity bonus. Part-time dispatchers are paid on an average hourly basis as \$ 15 per hour Full time benefits are calculated at about % of salary and are based upon contract guidelines.

Ocean City dispatchers participate in the Communications Workers of America Local 1078. This union also supports the Ocean City clerical, public works and non-emergency provider or manager.

2.6 PSAP Capabilities

The Ocean City Communications Center is located on the second floor of the Police Building in a separate area not immediately accessible to the general public. The dispatch space is configured with appropriate task lighting that enhances the clarity on each of the 21-inch monitors on the four dispatch positions with newly upgraded furniture and console systems making the environment ergonomically compatible.

The 911 System has been recently upgraded to NG-911. The Cassidian Sentinel Patriot system is capable of fully integrating with the CODY CAD and THINK GIS Mapping. Each of the four positions is set up with the same equipment including:

- Three computer workstations
- Four computer monitors
- NG-911 telephone answering with ANI/ALI screen
- Radio microphones
- Four radio speakers
- Zetron radio paging console
- CODY CAD/RMS

Each console has a radio that is on a separate computer and monitor. IT actively monitors 20 radios and is utilized to page out fire and EMS calls. The dispatcher has the ability to simulcast over multiple radios and can patch radios together to provide interoperability to all agencies.

2.6.1 Radio System

Ocean City operates a five channel, citywide 800 MHz Trunked Enhanced Digital Access Communications System (EDACS) manufactured by MA-COM. The system antennae is located on the roof of the Port-O-Call Hotel between 15th and 16th Streets and connects to the Ocean City Communications Center via a leased T-1 that connects the Port-O-Call radio site to Atlantic County's radio controller in Egg Harbor Township.

The Ocean City radio system is an independent node on the Atlantic County system and acts as a 'communications bridge' from Cape May County, allowing seamless

interoperable communications between first responders and dispatchers. By virtue of this functionality, Ocean City channels can be accessed from Atlantic County Dispatch without any change in the communications protocols. There are no narrowbanding limitations at this time.

The City has a radio contingency plan for its 800 MHz system. If the system at Port-O-Call were to fail, the mobiles and portables are designed to scan for the Atlantic County control channel and then automatically switch to it. This would maintain radio communications on Ocean City's radio frequencies. These back-up measures provide Ocean City with a reliable and interoperable strategy for long-term, regional communications on the 800 MHz trunked communication system.

Ocean City's Fire, Beach Patrol and EMS services operate on VHF radio channels. The Fire Radio is made up of two VHF channels; one designated as F1 which is the main repeater channel located at Fire HQ and a satellite receiver at Fire Station #3 (46th and West). The second Fire Channel, also VHF, is the tactical channel or Fire Ground, a simplex frequency with receivers at Fire HQ, the High School, the Intermediate School and Fire Station #3. The Beach Patrol operates on a VHF repeater system off the top of a building at 3rd Street and Boardwalk. The Cape May County EMS System is on a simplex VHF channel. The Fire Command has access to the City's UHF Radio System. All of these channels are connected to the Police Dispatch Center.

According to Ocean City technology staff, the UHF and VHF frequencies for Ocean City Fire/EMS, as well as for each of the other communities they support, are programmed into Mobile Command Center facilities from Cape May and Atlantic Counties, providing multi-tiered operational backup.

2.6.2 ZETRON 4000 Radio Control System

The Zetron 4000 Radio Control system provides the control of multiple radio channels installed within the Communications Center. It supports trunked, conventional, analog, and digital radio communications and can operate remotely utilizing a microwave radio, T-1 link as well as a wireless LAN configuration. It supports Kenwood, Motorola, MA-COM, and other major radio providers making it a universal command and radio control system.

2.6.3 E9-1-1 Communications Systems

Ocean City utilizes the newest 911 equipment within the County having recently upgraded their PLANT equipment to a NG-911 product, Sentinel Patriot. Sentinel Patriot system equipment is provided by Verizon and was installed as recently as 4 months ago. The system is capable of all current W/E9-1-1 services and supports an integrated mapping system however Ocean City uses the City's GIS system THINK mapping software.

2.6.4 Computer Aided Dispatch (CAD) and Mapping System

Ocean City uses the CODY CAD/RMS package that supports the activities and events for the four-position dispatch environment. There is sufficient system support for the communities now being served by the Ocean City Communications Center and it is anticipated that the CODY system would most likely be capable of supporting the additional load of several other small communities. The plans for each of the schools, hydrant data and web interfaces are available through the THINK GIS system. Any additional City infrastructure can be added but it may require manual updating.

Ocean City does not have user issues with the CODY CAD system; however, there are interface and inter-agency concerns that have created user and operational inefficiencies:

- 911 Calls can populate the CODY CAD however the dispatcher has the ability to make the choice. Wireless call data is typically not pulled however land line data is pulled into the CODY system.
- The THINK GIS system is regularly updated
- According to Upper Township, dispatchers don't provide cross street information on 911 calls. Ocean City dispatch supervisor has incorporated the cross street and other pertinent data on the secondary dispatch or if asked. This request to provide cross street information is manual and not a performance or procedural issue as not everyone needs it and the first call results in lost information if provided. Although requests have been made by Upper Township Fire Department to distribute the procedural guide for the fire service, Ocean City Dispatch Manager has not distributed it to telecommunicators as the guide has not been formally approved by Upper Township.
- Mapping data from the 911 call does not always provide the nearest cross street as not all carriers have implemented the Phase 2 service with GPS service. This is further complicated when calls hit towers that are not in the town where the caller is calling from. While this is not the norm, the condition adds to the complexities of dispatching for fire services who typically require detailed information for each call and often believe they do not get the full picture.

THINK GIS mapping system is integrated with the CODY CAD system and Sentinel Patriot system enabling telecommunicators to locate 911 callers with latitude/longitude when provided by wireless carriers. This data also provides a visual where all Ocean City Police cars are located as well as hydrant locations in Ocean City, Upper Township and Strathmere for the fire services.

CAD/Firehouse CAD interface: Ocean City Fire

The Ocean City Fire Department does a manual update of related fire events to store in their Fire CAD. Their CAD does not interface with Firehouse. MDT's will be placed in fire apparatus so that GIS mapping, records and reporting can be accessible to fire. This will be included in CODY Mobile 7 which is in addition to what Ocean City Fire already has. The EMS reporting will be the first portion of the system to be updated. The estimated

date is June 2013. Fire Captain will become responsible for tracking units, calls and status of events through the mobile interface on the MDT's. It is hoped to have the mobile fire data available by Summer 2013.

CAD/Firehouse CAD interface: Upper Township Fire/EMS

Upper Township EMS Chief did have CODY CAD/RMS interface through the remote server for Upper Township. Due to local technology issues in Upper Township this remote access is not functional at this time.

The Ocean City Communications Center has a four position console with a minimum of two dispatchers per shift. Ocean City has battery backup and a building generator for external power. The County OEM Center is the back-up center for 911 Ocean City as well as all other Cape May communities, however there is a fully equipped back-up center for Ocean City non-911 calls and radios/paging located in Upper Township.

Capabilities	County System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	CODY- CAD/RMS
Mapping	THINK GIS linked to Sentinel system
E-911 Consoles and Equipment	Sentinel Patriot system
Radio Control Consoles and Equipment	Zetron Radio Console

Table 2-5: Equipment Capabilities

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2.7 Radio Systems and Frequencies

Ocean City dispatch operates predominantly off the Atlantic County 800 MHz radio system using the following frequencies:

Call Sign	Site Location	Tx Freq.	Rx Freq.	PL	Licensee	Original User	Current User	Status	Ch. #
KK7147	PD Vehicles	10525.0000	10525.0000		Ocean City	OC Police	OC Police	Active	Radar
WPCI513	Fire HQ	453.3750	458.3750	173.8	Ocean City	OC Public Works	Out-of-Service	Active	6
KEE540	Fire HQ	154.4450	153.8900	141.3	Ocean City	OC Fire	OC Fire, EMS	Active	FD 1
		154.3100	154.3100	Atlantic County Fire 1		OC Fire Mutual A	A Co F1		
		151.1150	159.0900	OC Beach Patrol		OC Beach Patrol	OCBP		
		151.1150	151.1150	OC Beach Patrol		OC Beach Patrol			
KEA639	Port-O-Call Rptr. Talk-around	460.3500	465.3500	173.8	Ocean City	OC Police	OC OEM Sirens	Active	PD 1
		460.3500	460.3500	173.8			OC Police		PD 2
WPZS426	Port-O-Call Hotel Fire HQ	453.9500	458.9500	173.8	Ocean City	OC Beach Patrol	Out-of-Service	Active	4
		153.8450	153.8450	OC DPW, Code Enf.		OC Fire Ground			
WQAR941	Aquatics & Fitness Rptr. Talk-around	453.7000	458.7000	173.8		OC Parking Authority	Assorted Users	Active	3
		453.7000	453.7000	173.8			Assorted Users		
KNCX767	Police HQ	154.6800	154.6800		Ocean City	OC Police	OC Police/SPEN	Active	SPEN 1
		155.4750	155.4750				OC Police/SPEN		SPEN 2
WYX303	Police HQ	156.2100	156.2100		Ocean City	OC Police	County PD APB	Active	APB
WQBR712		4940.0000 - 4990.0000			Ocean City	Citywide WiFi		Active	
WPZV984	Port-O-Call Hotel	806.8500	851.8500		Ocean City	Citywide 800 MHz	All Departments	Active	TC1
		807.1750	852.1750						TC2
		807.9000	852.9000						TC3

Call	Site	Tx Freq.	Rx Freq.	PL	Lice	Original User	Current User	Sta	Ch.
		808.475	853.475						TC4
		808.800	853.800						TC5
		867.012	822.012			Interoperability	800 MHz Mutual Aid		ITA
		866.012	821.012						ICA
		866.512	821.512						ITAC
		867.512	822.512						ITA
		868.012	823.012						ITA

Table 2-6: Radio Frequency Listing

2.8 Voice and Data Interoperability

As there is no formalized methodology to achieve County wide interoperability, it has been left to each municipality to establish its own procedures and interfaces to other agencies. Ocean City is no exception as the City is the only agency in Cape May that is on an 800 MHz frequency band. The system itself is part of the Atlantic County service. Ocean City has developed several patches and interfaces to VHF and UHF systems so that dispatchers can communicate during emergency conditions to fire/EMS/ Beach Patrol and other Cape May communities. While this strategy does not represent a perfect solution, it works for Ocean City with what appears to be little operational impact.

Going forward, a county-wide strategy and philosophy will need to be created in order to achieve any level of inter-agency communications between and amongst towns along the Barrier Island and Mainland regardless of whether a regional dispatch communications center becomes a reality or not.

2.9 Data Communications

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system, or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Ocean City PSAP operates on the CODY CAD which is not used in any other PSAP within the County. The Fire department utilizes Fire House Records Management System which incorporates 'dumped' data from CODY. The CAD system dumps a skeleton into the RMS system which then becomes available as part of a larger report in the RMS system. Individual events are recorded separately for police, fire and medical. Dispatcher generates a separate incident for each call for service.

2.10 Training

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the course of the year. Telecommunicators are required to take an initial training protocol of 40 hours that certifies them for life. Emergency Medical Dispatch is a 32 hour course that requires recertification every other year. .

EMD flip cards and protocols are issued under the State Department of Health.

The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED) - Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch course are also offered. Dispatchers in Ocean City are all New Jersey State Certified Telecommunicators and are EMD trained. Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website; the City's Senior Dispatcher provides training to the other dispatchers and functions as provides dispatch quality assurance.

In addition to formal training, each dispatcher has access to the internet which is considered a valuable tool to obtain contact information for agencies, information for callers, on-going refresher training and perform information searches for emergency responders.

2.11 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with the Ocean City managers, police chief and senior police administration after which we observed operations within the PSAP. Through these various interactions specific thoughts regarding regionalization and its impact on local operations and residents was discussed. It was generally agreed that a regionalized dispatch function could be beneficial however, Ocean City had achieved such a high level of functionality within their own facility that it would require significant financial or operational improvements over current operations for Ocean City to migrate its current operation. In fact, the few major gaps in Ocean City's operation are:

- The facility cannot expand
- The operation is on the barrier island which imposes a certain degree of risk as seen during Hurricane Sandy.
- The Center is managed and operated under a Police chain of command which lends itself to bias and potential conflict between agencies and even between dispatchers and their police counterparts.

Generally, Ocean City Police Chief believed there were two options for the City to consider. The first would be to become part of the Atlantic County regional dispatch if that were ever to move forward. The second would be to have the dispatch operation become a 'spoke' off of a Cape May regional dispatch solution.

Police officials considered benefits to regionalizing dispatch to be:

- Standardized training
- Cross training of multiple dispatchers to handle calls
- Better coordination of resources
- Development of standard operating procedures
- An improved level of service through dedicated fire/medical dispatchers trained to address discipline related requirements
- Development of standard operating procedures
- Common records management systems for better inter-agency sharing of information

Police management believed the drawbacks to be:

- Residents are fearful of change
- Control of communications will not be in 'local hands'
- Lack of dispatcher familiarity with 'our' town.

Fire officials considered benefits to regionalizing dispatch to be:

- Standardized training
- Cross training of multiple dispatchers to handle calls
- An improved level of service through dedicated fire/medical dispatchers trained to address discipline related requirements
- Better coordination of resources
- Development of standard operating procedures
- Common records management systems for better inter-agency sharing of information

Fire Officials believed the objections would focus on:

- There is no interest from local officials
- Perception that control of communications would not be in local hands
- Belief that residents don't want to change the status quo

Our team had the opportunity to speak with various officials who voiced optimism regarding a regional dispatch effort citing that while previous studies had failed due to lack of interest it is time to move ahead. Examples of inefficient staffing is crystalized when viewed through the resource deployment on a typical midnight shift: There may be as many as 13 dispatchers on duty during the shift that typically receives little traffic.

Based upon the questionnaire responses it was believed that the most advantageous configuration for Police and Fire believed to be an existing town-based regional center with two or three town's maximum perhaps beginning as a partial consolidation. This would allow agencies that offer similar operations and have similar political, fiscal and demographic conditions to align themselves. The advantage would be to group dispatchers with local familiarity into similar functions to improve services and cross training. While Police management are open to all configuration options as long as there are cost savings, the Fire services of Mamora believe that a full consolidation within a single center with common management using cross-trained but specialized dispatchers would be preferred.

Our general observation of the Ocean City PSAP is that the dispatch staff very confidently handles the complexities of their job and can be a model regarding operation, staffing and procedure regarding police dispatch, technology and overall first responder support. User agencies have supported the high standards and dispatch management.

However, feedback from both Upper Township Fire and Ocean City Fire offer insight regarding service delivery. From their perspective, it would be a significant benefit to employees as well as first responders if the Center were managed as an 'independent' department rather than under the command control of police. Both fire agencies voiced similar perceptions that the dispatch organization would provide greater benefit to the fire service if senior management had greater input and understanding of fire service needs.

As a result, the perception is that the dispatch organization does not 'fit' in with police or fire and long term employees are reluctant to incorporate changes. These comments should be addressed as part of a quality assurance review outside of the police organization however the personnel to provide this review do not officially exist. Our observation is that in order to offer unbiased and constructive guidance and on-going support to all users of the dispatch center, Ocean City Dispatch Center would be better served if the perception of partiality was eliminated by considering an independent unaffiliated department to provide management control and direction.

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2.12 Photographic Journal



Figure 2-2: View of Dispatch Center



Figure 2-3: Alternate View of Dispatch Center

Cape May County, New Jersey Existing Conditions Assessment

App-B: 3.0 Sea Isle City PSAP

3.0 Sea Isle City PSAP

3.1 Sea Isle City PSAP Overview

The Sea Isle City PSAP and Communications Center provides call answering and first responder emergency dispatch services to all of Sea Isle City for police, fire and medical assistance. Based on the 2010 census data the City has a population of approximately 2,114 full time residents, which is a 721 decline (-25%) from the last census taken in 2000. According to Internet data, its summer population increases to approximately 40,000 during the peak summer season from Memorial Day to Labor Day.

Sea Isle City is located on Ludlam Island, which also contains part of Dennis Township. Sea Isle City borders Upper Township, Dennis Township, Middle Township, Avalon Borough, and the Atlantic Ocean. Sea Isle City is governed under the Faulkner Act (Mayor-Council) form of government by a mayor and a five-member City Council.

According to our interview with Police Administration, Sea Isle City is not open to the concept of dispatch regionalization, including police, fire, city administration, and residents. Sea Isle City has participated in previous shared services studies, including one in 2009 with Ocean City. Although Sea Isle City participated in a January 2013 meeting to discuss dispatch consolidation with Avalon and Stone Harbor, the Police Captain stated that Sea Isle City is not interested in moving forward with that plan.

In other areas, the City is open to the concept of shared services, when properly implemented. Starting with the 2010-11 school year, students from Sea Isle City attended the Ocean City schools beginning in fifth grade. As of June 30, 2012, the Sea Isle City School District is no longer open, and all students pre-Kindergarten through twelfth grade attend Ocean City Public Schools.

The Sea Isle Police Department and PSAP were damaged during 2012's Hurricane Sandy and are currently operating out of construction trailers located at the closed Elementary School. During interviews conducted in the course of this study, several other PSAPs referred to Sea Isle City as the "poster child" for why a regional dispatch center should be established centrally in Cape May County, and not be located on the barrier island. According to web research, many hurricanes and large storms have hit Sea Isle City through the years, including the Nor'easter of 1962 in which almost every beach front home or property was destroyed or damaged and rescuers had to use helicopters to evacuate the rest of the City.

According to interviews with the Sea Isle Police Captain, they do not share this opinion, and she states that neither the Police nor the Town officials are interested in dispatch regionalization. They are building a new Police/Fire/Municipal Center with dispatch center planned to be located on the second floor. They believe the new building, due to its elevation and design, will withstand future storms. Police would consider expanding dispatch communications to serve other towns.

Sea Isle Police did not return the study's data surveys as requested during the study. This assessment is based on interviews with the Police Captain, data provided by the State of New Jersey, data from prior studies with Sea Isle City, and web research.

3.2 PSAP Call Processing

Sea Isle City Police Department is the town's primary PSAP providing call answering and emergency dispatch support for police, fire, and medical assistance to its full time and summer residents. The Police Department and PSAP is temporarily located at 4501 Park Road in trailers at the back of the former Elementary School. Plans are underway to build a new Police Headquarters/PSAP in Sea Isle City.

According to the Sea Isle Police online table of organization (as of August 2012), the Sea Isle City Police Department consisted of 26 sworn law enforcement officers, Class II Special Law Enforcement Officers (up to 25 in the summer, according to interviews with Police), 4 full time and 1 part time relief dispatcher, 2 records clerks, and 1 secretary.

Dispatchers provide services to one Police Department, the Sea Isle City Volunteer Fire Department (two stations), and the Sea Isle Ambulance Corp. Other supported agencies are Beach Patrol, Animal Control and Public Works.

Like the other Cape May County communities, Sea Isle City utilizes the County OEM Center as its back-up PSAP, which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center. Immediately following the evacuation from the PSAP after Hurricane Sandy, the Sea Isle PSAP operated out of the County's OEM mobile command center for several days until communications were re-established from the temporary Police Headquarters at the former Elementary School.

In addition to emergency communications calls, the communications center supports town-based calls, administrative calls and a variety of police department support services.

Sea Isle Police did not provide any CAD data as requested during the study.

Call volume was estimated in a 2009 report as 20,354 Calls for Service annually.

Calls for Service	2011	2012	Percentage Change
Total 9-1-1 calls Received	** 2,933 State	** 2,875 State	-2% (-58)
Fire Calls (CAD Events)	N/A	N/A	N/A
Medical Calls (CAD Events)	N/A	N/A	N/A
Total Police dispatched incidents (CFS)	N/A	N/A	N/A

Table 3-3: Calls for Service and Call Volume

**State 911 data based upon the number of ALI dips

Administrative call volume and 'radio chatter' data were not available for this report.

For the most part, Sea Isle City operates with one dispatcher at all times, although two dispatchers are scheduled during summer Saturday nights and special events/holidays.

Peak season, which runs from Memorial Day through Labor Day (and even through September), are the busiest months for Sea Isle City as reflected in the number of ANI dips recorded by the State of New Jersey's Office of Emergency Telecommunications.

Sea Isle	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec		Total
2011	74	83	56	123	241	402	795	634	242	114	92	77		2933
2012	96	94	74	86	248	430	563	613	246	135	102	188		2875

Table 3-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by OETS, 64% (2012) and 71% (2011) of Sea Isle City's 911 call volume occurs during the four month (May-August) peak seasonal period as compared to the average ANI dips throughout the other eight months of the year. The average monthly call volume during the four summer months is 464, versus an off-season average of 128 per month, a 262% increase in call volume. Based on a 2009 report, total call volume ranges from 41 calls per day during the off season to approximately 102 daily calls during the season.

3.3 Dispatch Operations

The Sea Isle City Communications Center performs a diverse set of tasks in support of Law Enforcement, Fire/EMS, and E911 emergency communications services in addition to a host of public service and public safety support tasks, most of which focus on information and reception type functions.

The primary role of dispatchers is to provide police, fire and ambulance agencies with emergency call answering and dispatch within the City. Depending on the request of the caller, the dispatchers provide call receipt and confirm location information, caller's name, address, phone number, and nature of the call as well as other pertinent information. CAD and mapping systems are used to provide coordinated event support, radio dispatch and regularly updated information during the course of events in progress. When necessary, callers are instructed on emergency medical pre-arrival instructions until emergency response units have arrived. The dispatchers also perform NCIC/SCIC lookups as a regular part of their jobs. The Police Captain indicated that the Fire Department is satisfied with the service they receive and that dispatchers page Fire Stations, monitor fire/ground, and back-up the firefighters on the scene, although she acknowledged the majority of incident communications is between the firefighter and the on-scene commander. The Fire Chief has not provided input into this report.

Based on a 2009 report, dispatchers are responsible for answering two E911 trunks and four incoming phone lines in addition to monitoring and responding to first responders on five radio frequencies. E911 calls are given first priority followed by administrative lines. Radio traffic is monitored and acknowledged during calls. If multiple calls come in simultaneously, the dispatcher will place non-emergency phone calls on hold, prioritize the calls and deal with the highest priority call first.

Sea Isle City's communications center with one dispatcher on duty most times functions as a 'call hub' and administrative support center. Dispatchers provide a number of routine public safety and non-emergency support services within the dispatch center. In the old PSAP (destroyed by Hurricane Sandy), dispatchers were the first contact to the community. According to plans for the new building, the two-position dispatch center will be located on the second floor. Someone (not a dispatcher) will be located on the first floor as greeter from 9:00-5:00, and after business hours, visitors will be greeted over a telephone by a dispatcher.

Sea Isle City, like many of the Cape May County communities, uses its dispatchers for a variety of administrative and police-related functions that would not be defined as emergency communications, including greeting visitors and monitoring video camera surveillance from cameras located around the City. In the old Police building, dispatchers were responsible for at times monitoring prisoners and providing occasional visual checks; information was not provided as where detainees are being held while police operate out of the temporary trailers at the elementary school.

Mutual aid and assistance calls are considered like any other call for service. Sea Isle City provides mutual aid to Dennis Township and Woodbine Borough, and other nearby municipalities when requested. The response is initiated upon request from the jurisdiction either by phone or radio. Officers do not communicate radio-to-radio with Dennis or Woodbine State Police Officers, but are patched in through dispatch.

Sea Isle City Police did not complete the Dispatch Services and Tasks table, so more detailed information is not available.

3.4 Staffing

The Sea Isle City PSAP is currently staffed with four full time dispatchers, with one assigned to each of the patrol squads. All full-time staff are trained EMD dispatchers. The department does not employ any permanent part-time staff, but utilizes one relief dispatcher and a Class 2 Special Officer. Several Police Department members are trained to fill in as needed, which happens only occasionally (estimated as less than 10% of a sworn officer's time).

Normally, one dispatcher is on duty, both off-season and during the summer; however, during summer Saturday nights and busy holiday week-ends/special events they will schedule two dispatchers.

Dispatchers are assigned to a squad, with the squad sergeant serving as their immediate supervisor. The Police Lieutenant Operations Commander is responsible for the administrative function of scheduling, human resources, etc. There is no dedicated position for training and quality assurance review of incidents.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	0
Operations Manager	0
Information Technology Coordinator	0
Training/Quality Assurance	0
Administrative Assistant	0
Shift Supervisor	0
Call Taker/Dispatcher (FT)	4
Call Taker/Dispatcher (PT)	1 Relief
Shift Schedule:	12 hour shifts 7A-7P; 7P-7A
Total	4 FT; 1 Relief

Table 3-3: FTE Equivalents and Authorized Staff

Salary range data was not provided. Salaries were detailed in a 2009 report as \$31,279 (estimated) - \$59,663.

3.5 PSAP Capabilities

As stated previously, the Sea Isle Police Department and PSAP were damaged during 2012's Hurricane Sandy and they are currently operating a two-position console with a single dispatcher on per shift in a cramped space out of construction trailers located at the closed Elementary School. The dispatcher is the first person seen when the public enters the trailer for Police business.

The City plans on building a new Police/Fire/Municipal Center with the PSAP to be located on the second floor. The Police Administration believes the new building will withstand future storms, due to its elevation and design. According to Sea Isle City Police, even before the Hurricane they had plans to move into a new building in 2016, as there were numerous issues with the old building. Following the storm damage, the City decided to expedite its plans for the new building and to begin design and construction immediately, with hopes of moving into the building within the next two to three years.

Immediately following the Hurricane, the PSAP operated for a few days out of the County's Mobile Command Vehicle. During our interview, the Sea Isle City Police Captain said that when it became apparent dispatchers would have to evacuate the building, she contacted Avalon Police about physically locating Sea Isle City dispatchers in their PSAP, but was told it would take one-to-two weeks to get a console position set-up to support Sea Isle City. The County OEM's Mobile Command Vehicle was in place in Sea Isle City and functional within two hours.

Sea Isle City moved its 911 equipment, phones and radios to the second floor of the old Police building to protect the equipment from immediate storm damage and, following the

hurricane, did the work in-house to relocate and reconfigure the dispatch center from the damaged building to the construction trailers at the school. We were told that, as of our interview on February 11, 2013, the temporary dispatch center was fully functional in the elementary school trailers. We were not told whether there is battery backup or building generator for external power.

The County OEM Center continues to serve as the back-up center for Sea Isle City.

Procedurally, dispatchers enter calls in the Enforsys CAD system. Standard reports such as Calls for Service for Police, Fire and EMS along with a breakdown of the type of call for service total calls, busy hour by shift, and other requested call volume data were not provided at the time of this report. The Police Captain indicated that dispatchers were using an old Zetron console, but they had plans to get new consoles days after our interview. The Department plans on “stretching” the equipment they are using in the temporary dispatch center until the new building and new PSAP is ready.

Capabilities	Sea Isle City System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	CAD: Enforsys RMS: Enforsys
Mapping	Unknown
E-911 Consoles and Equipment	KML (not known if it is Phase II compliant)
Radio Control Consoles and Equipment	Zetron 4000 (was being updated at time of interview)
Recording System	Logging Recorder/Instant Playback equipment

Table 3-4: Equipment Capabilities

3.6 Radio Systems and Frequencies

According to the 2009 report, the Sea Isle radio system operates a 7 frequency VHF system for Police and Volunteer Fire/EMS agencies, with a single antenna site at Kennedy Boulevard and a back-up repeater at the Cape May Courthouse. Based on this prior report, the Police have a relatively new Motorola system while all other municipal services including Fire and EMS have Kenwood equipment. Information was not provided whether or not the VHF frequencies have been narrowbanded, any additional transmitter or receiver sites, or quantities of portables and mobile units.

The following channels are in operation in Sea Isle City, according to RadioReference.com:

Frequency	Input	License	Type	Tone	Alpha Tag	Description	Mode	Tag
155.5650	154.6500	WNBZ382	RM 025	DPL	SIC Police	Police Dispatch/ Operations	FMN	Law Dispatch
154.1300		WYD390	BM		SIC Fire	Fire Dispatch/ Operations	FM	Fire Dispatch
155.3550	150.7900	WPLQ657	RM 141.3	PL	SIC EMS	EMS Operations	FM	EMS- Talk
154.7850		WQBS528	BM 125	DPL	SIC Beach	Beach Patrol Operations	FMN	Public Works
154.0400		KDG829	BM 118.8	PL	SIC DPW	Public Works Operations	FMN	Public Works

Table 3-5: Radio Frequency Listing

3.7 Voice and Data Interoperability

There is no regional voice and data interoperability between Sea Isle City first responders and other disciplines within the County although the county does use a county-wide channel to communicate on dispatch-to-dispatch and dispatch-to-car. During mutual aid support, there is no radio-to-radio interoperability, but voice communication is accomplished by patches through dispatch.

During interviews, the Police Captain indicated that Sea Isle Police provide mutual aid and have close working relationships with the NJ State Police serving Dennis Township and Woodbine Borough. However, she stated that most of their communication is cell phone to cell phone, rather than via radios. She was not interested at the local level in a County radio system and didn't feel that voice would be utilized.

3.8 Data Communications

All police officers have MDTs installed in their cars and dedicated radio laptops. They have data capability and inter-jurisdictional sharing via their MDTs.

Sea Isle City has also been installing License Plate Readers in their cars, which they are finding very effective to flag suspect license plates even before an officer calls it in for a check. Each night, data from the car LPR is downloaded to the Police network.

3.9 Training

All of Sea Isle City's Public Safety Telecommunication Operators are required to receive and maintain EMD certification by the Office of Emergency Telecommunications Services in the Department of Law and Public Safety.

Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

3.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with Sea Isle City Police Captain Rosemary Milano. At the time of the interview, Chief Thomas D'Intino was attending an FBI Academy program and unavailable. During this brief interview, specific thoughts were discussed regarding regionalization and its impact on local operations and residents.

Police Administration did not recognize any benefits of regionalizing dispatch services, and clearly stated throughout the interview that they do not support the concept of consolidated or regionalized dispatch and that “No one in Sea Isle City is interested in the study or interested in participating in a county-wide regionalization model.”

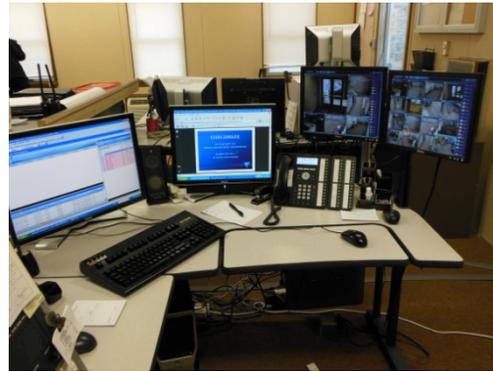
Police administration believed there to be significant drawbacks noted as:

- Lack of dispatcher familiarity with ‘our’ town and ‘our people.’
 - A specific example cited was the City’s use of 25 Class 2 Special Law Enforcement Officers during the summer, and dispatchers knowledge of “trouble spot addresses” to which they would not dispatch a Class 2 SLEO to certain locations or people.
- Belief that residents and elected officials don’t want to change the status quo
- Concerns that dispatchers perform many critical tasks besides emergency communications that still need to be provided (greeting visitors, monitoring Public Works frequencies, answering the business phone, providing information to people attending meetings in the building, assisting people regarding court services and general information).
 - Observation: In the plans for the new Police Building, dispatchers will be located on the second floor and will not be the “face to the public” during business hours and will greet the public after hours via telephone interface.

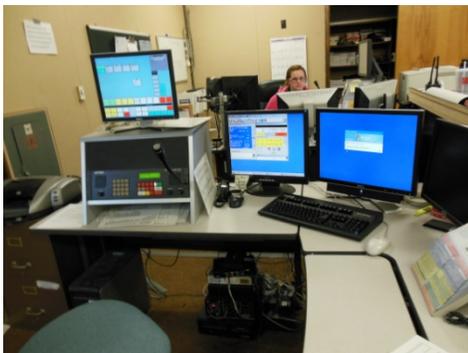
3.11 Photographic Journal



**Figure 3-1:
Police Temporary Location in
Trailers at Elementary School**



**Figure 3-3:
Dispatch Position 1 in Temporary Location**



**Figure 3-2:
Dispatch Positions in Temporary Location**

Cape May County, New Jersey Existing Conditions Assessment

App-B: 4.0 Borough of Avalon PSAP

4.0 Borough of Avalon PSAP

4.1 Borough of Avalon Overview

The Avalon PSAP and Communications Center provides call answering and first responder emergency dispatch services to the Borough of Avalon for police, fire and medical.

Based on the 2010 census data the Borough has a winter population of approximately 1,334 full time residents which is down from the last census taken in 2000. The summer population exceeds 35,000. Avalon borders Sea Isle City, Stone Harbor Borough, Middle Township, and the Atlantic Ocean. The city is approximately 4.9 square miles.

Over the years, Avalon and Stone Harbor have pursued opportunities to share costs. The most recent examples is an agreement with the Avalon School District for K-4 students of both communities to attend school in Avalon while all 5-8 students attend school in Avalon.

More recently, Boro of Avalon officials have met with Stone Harbor officials to discuss the concept of regionalized dispatch services between the two towns. The premise of these discussions has been that Stone Harbor would transition their dispatch operations to Avalon as Avalon's newer building and facilities would be better able to provide the emergency dispatch operations. Retaining dispatch in Avalon has been considered a given as Council wishes to preserve the personal touch of having a 'meet and greet' function for residents and visitors however, the Avalon Borough Mayor is open to all options.

4.2 PSAP Call Processing

Avalon Police Department is the town's primary PSAP providing call answering and emergency dispatch support for police, fire and medical assistance. Like the other Cape May county communities, Avalon utilizes the County OEM Center as their back up PSAP which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center. In addition to emergency communications calls, the communications center supports town-based calls, administrative calls and a variety of town-support services and functions including a Senior Call-In service.

Calls for Service	2011	2012	Percentage Change
Total 9-1-1 calls Received	3081*	2781	Less than 1% change
Fire/Medical CAD Events		252/733	
Total Police dispatched incidents (CFS)**	26,891	29,776	9.6% change

Table 4-6: Calls for Service and Call Volume

*State 911 data based upon the number of ALI dips

**Avalon's estimates from local CAD data;

Based upon local CAD data, 97% of the calls for service in 2011 and 2012 were responded to by Police. The remaining 3% of calls for service in 2012 are split between fire and

medical response with less than 1% (252) requiring fire dispatched response and approximately 2.3% (217) requiring a medical response. The preceding four years from 2008-2010 have resulted in similar statistics for police calls for service which resulted in 97% of the calls; fire responses being no more than .08% of the total calls for service and medical responses resulting in about 1.7% of the total response. Administrative call volume and 'radio chatter' data were not available for this report.

On average, dispatchers may monitor from 4 police units in the winter and 10 in the summer. This is in addition to Fire/EMS and animal control units. At times there may be one dispatcher in the center handling all elements.

Peak season which runs from Memorial Day through Labor Day are the busiest months for Avalon as reflected in the number of ANI dips recorded by the State of New Jersey's Office of Emergency Telecommunications.

Avalon	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec		Total
2011	129	120	145	163	293	345	633	469	314	182	146	142		3081
2012	116	120	162	140	289	370	376	485	260	195	151	117		2781

Table 4-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by the OETS Avalon experienced almost four times the emergency 911 call volume during the peak seasonal period as compared to the average ANI dips throughout the other seven months of the year in 2011 and almost two times the emergency 911 call volume in 2012. The Center's busiest days are Friday and Saturday and busiest hours are 1:30-3pm. Average time to process a call from call answer to dispatch is one minute according to information provided by Avalon Police.

4.3 Dispatch Operations

The Avalon Communications Center performs a diverse set of tasks in support of Law Enforcement, Fire and E911 emergency communications services in addition to a host of public service and public safety support tasks most of which focus on information and reception type functions.

The primary role of City telecommunicators is to provide police, fire and ambulance agencies with emergency call answering and dispatch within the city limits of Avalon. Depending on the request of the caller, the dispatchers retrieve the address, name, phone number and details relating to the call to dispatch to field units. During the fact finding and call interrogation the dispatcher is entering the information into the CAD system and then dispatches appropriate field units. Dispatchers are trained to provide EMD although there is concern that the single dispatcher on duty is insufficient to devote sufficient time to the function in addition to supporting the extensive list of other services required for a fire and medical response.

Mutual aid and assistance calls are considered like any other call for service. Avalon provides mutual aid to Middle Township and Avalon. The PSAP provides support to other

town agencies as well including Animal Control, Department of Public Works and Beach Patrol.

Dispatchers are responsible for answering 2-E911 trunks and four administrative phone lines in addition to monitoring and responding to first responders on three radio frequencies and monitoring fire ground channels at fire events. E911 calls are given first priority followed by administrative lines. Radio traffic is monitored and acknowledged during calls also. If multiple calls come in simultaneously, the dispatcher will place non-emergency phone calls on hold, prioritize the calls and deal with the highest priority call first. There are four administrative fire department lines which are answered at the fire station.

Avalon's two-position center functions as a 'call hub' and administrative support center which is believed to detract from the fire/medical emergency services and responsiveness of dispatchers. The Avalon Fire Chief believes this is due more to a lack of consistent experience in dispatching for fire services as it represents such a low percentage of total calls for service. However, when a fire incident is in progress, first responders expect to have the dispatcher familiar with handling the multiple service requirements associated with a given event. Most often the concern is over the processing of individual service requests to utilities (electric, gas and other), understanding of which apparatus to call out and monitoring of incident command/fire ground channels which has a significant impact on the confidence of the firefighting team as they are unsure of the level of service they will receive once they are dispatched.

Dispatchers also provide a number of routine public safety and non-emergency support services as well as public, town-based services within the dispatch center. These activities include but are not limited to providing directions, addressing detainees 'rights', custody questions, municipal and police 'switchboard' for call transfers, animal control calls, lobby walk-in traffic services and vehicle towing to name a few.

Prisoner monitoring is another activity dispatchers participate in. This includes monitoring of municipal detention activities via the internal camera system. Seasonal activities that impact dispatcher time and span of attention include monitoring and dispatching responses to the beach patrol, special events and many other circumstances that come up during the summer months.

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These and other activities dispatchers participate in can be found in the following Table:

Dispatcher Services and Tasks	Please check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering	<input checked="" type="checkbox"/>
Provide EMD	<input checked="" type="checkbox"/>
Transfer to EMD Provider	
Police Dispatch	<input checked="" type="checkbox"/>
Fire Dispatch (tone or radio)	<input checked="" type="checkbox"/>
Medical Dispatch	<input checked="" type="checkbox"/>
Ambulance Call Out to surrounding Towns	<input checked="" type="checkbox"/>
Routine Public Safety Tasks	
Request assistance of Highway/DPW	<input checked="" type="checkbox"/>
Request mutual aid/special services	<input checked="" type="checkbox"/>
Request wrecker assistance	<input checked="" type="checkbox"/>
Request wildlife removal	<input checked="" type="checkbox"/>
Walk-in Requests for Medical Assistance	<input checked="" type="checkbox"/>
Monitor prisoners in holding cells and booking area	<input checked="" type="checkbox"/>
Assist in prisoner evacuation in case of emergency	<input checked="" type="checkbox"/>
Process fingerprinting/fees	
NCIC lookups/Background checks	<input checked="" type="checkbox"/>
Enter warrants/restraining orders	<input checked="" type="checkbox"/>
File Protective Orders	
Activate Knox Box keys for Fire Dept	
Non Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	<input checked="" type="checkbox"/>
After hours pick-up/drop off for money and possessions	<input checked="" type="checkbox"/>
Walk-in Requests for advice/information/complaints/directions/town functions	<input checked="" type="checkbox"/>
Walk-ins with lost/stray dogs	<input checked="" type="checkbox"/>
Safe Haven	<input checked="" type="checkbox"/>
Provide keys for elevator and building access	
Maintain Parks and Recreation Permits	
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	
Assign officers to work vacancies	
Assignment of crossing guard posts	
Dispatcher Services and Tasks	
Please check all that apply	
Provide paychecks to crossing guards	
Collect time cards	
Coordinate functions during special events	
POC for probation officers and meetings	
Electronically open/close sallyport doors and prison cells	<input checked="" type="checkbox"/>
Monitor/Receive incoming residential/commercial alarms	<input checked="" type="checkbox"/>

Table 4-3: Listing of Dispatch Service

INTERTECH ASSOCIATES TECHNOLOGY & SECURITY CONSULTANTS AND ENGINEERS

January 20, 2014

4.4 Staffing

The Avalon PSAP is authorized for 5 full time civilian call taker/dispatch staff and 5 part-time staff. Dispatchers do not have an immediate supervisor but a Police Sergeant provides training and quality assurance review of incidents. Normally, one dispatcher is on duty however during emergency and high volume/seasonal conditions, another full time dispatcher is called in for response.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	0
Operations Manager	0
Information Technology Coordinator	1-Patrol Sargent
Training/Quality Assurance	1-Captain
Administrative Assistant	0
Shift Supervisor	0
Call Taker/Dispatcher (FT)	3
Call Taker/Dispatcher (PT)	4
Shift Schedule:	12 hour shifts
Total	3 FT; 6 PT staff

Table 4-4: FTE Equivalents and Authorized Staff

The pay scale for the Communications Officer is \$25,000-\$49,652. Part-time dispatchers are paid on an hourly basis as \$15 per hour. Benefits are calculated at about 37% of salary and are based upon contract guidelines.

Avalon dispatchers participate in the United Independent Union Local #1.

4.5 PSAP Capabilities

The Avalon Communications Center has 2 working positions. Both positions operate in tandem. The 15x15 dispatch center requires is fairly new. It was designed to allow for public access to dispatchers with public-facing windows along the main building entry but it also has its own restroom. Design included thought regarding dispatcher protections as it includes a 5 foot area for a secured drop-box. Unfortunately, due to the way the drop box is constructed, full use of the corner areas of the center is limited. All furniture is newer ergonomic styled to support dispatcher needs; four console monitors are stacked providing the greatest use of space for both positions. A third position can be added with minor reconfiguration of space and furniture layouts making t Center functional and usable to support a third full time dispatcher. The room is well lit and access to the room is through an interior corridor and secured card access code.

Avalon has both UPS backup power as well as generator. The UPS provides bridging power for 30 minutes as its main function is to act as a temporary power source until the generator kicks in. The County OEM Center is the back-up center for Avalon.

Capabilities	County System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	Lawsoft Systems – CAD Filemaker Pro - RMS
Mapping	None
E-911 Consoles and Equipment	KML
Radio Control Consoles and Equipment	Avatech Radio Console

Table 7-5: Equipment Capabilities

4.6 Radio Systems and Frequencies

Avalon dispatch operates predominantly off of a VHF radio system using the following frequencies:

AVALON	WPKQ437	153.83000	2	0	FX1	PW
AVALON	KCX941	154.13000	23	0	MO	PW
AVALON	WPKQ437	154.38500	100	0	MO	PW
AVALON	KNDV949	155.47500	1	0	FB	PW
AVALON	KEC695	155.67000	1	0	FB	PW
AVALON	WNCG543	453.65000	1	0	FB2	PW
AVALON	WNCG543	453.75000	1	10	FB2	PW
AVALON	WNCG543	453.98750	30	0	MO	PW
AVALON	WNCG543	458.65000	40	0	MO	PW
AVALON	WNCG543	458.75000	40	0	MO	PW
AVALON	WNCG543	458.98750	30	0	MO	PW
AVALON	WNCW582	460.12500	1	0	FBS	PW
AVALON	WQKC805	462.28750	1	0	MO	IG
AVALON	WNCW582	465.12500	1	0	FX1S	PW
AVALON	WPKQ437	465.63750	1	0	MO	PW
AVALON	WQKC805	467.28750	1	0	MO	IG

Table 4-6: Radio Frequency Listing

Avalon utilizes a mix of VHF and UHF frequencies on a Moto TRBO product with Avatech radio consoles. MotoTRBO is a Motorola P25-litedigital product that provides the core P25 interoperability with other radio manufacturers on the same band. The primary feature offers the ability for non-IP based radio's to operate on an IP infrastructure broadening the range of spectrum, coverage and other digital features such as text messaging, GPS location tracking and dispatch.

4.7 Voice and Data Interoperability

As there is no formalized methodology to achieve County wide interoperability, each town and borough has taken it upon themselves to work within their limited budgets to develop individual interoperability solutions. Avalon has achieved a degree of this through their implementation of the MotoTRBO system which allows UHF and VHF channels to communicate through dispatch. This allows for a baseline level of interoperability between disciplines.

Going forward, a county-wide strategy and philosophy will need to be created in order to achieve any level of inter-agency communications between and amongst towns along the Barrier Island and Mainland regardless of whether a regional dispatch communications center becomes a reality or not.

4.8 Data Communications

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system, or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Avalon PSAP operates on Law Soft Systems CAD and Filemaker PRO RMS neither of which are used elsewhere in Cape May County. The Fire department utilizes the same system as well as Fire House and the data is shared for mutual aid purposes. The Dispatcher generates a separate incident for each call for service. The CAD system dumps a skeleton into the RMS system which then becomes available as part of a larger report in the RMS system. Individual events are recorded separately for police, fire and medical.

4.9 Training

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the course of the year. Telecommunicators are required to take an initial training protocol of 40 hours that certifies them for life. Emergency Medical Dispatch is a 32 hour course that requires recertification every other year. .

EMD flip cards and protocols are issued under the State Department of Health.

The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED) -

Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch course are also offered. Dispatchers in Stone Harbor are all New Jersey State Certified Telecommunicators and are EMD trained. Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

4.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with the Avalon Sargent and Avalon Fire Chief and observed the PSAP. Through these various interactions specific thoughts regarding regionalization and its impact on local operations and residents was discussed. Police management did not recognize any benefits of regionalizing dispatch services however, Fire Officials considered benefits to regionalizing dispatch to be:

- Standardized training
- Cross training of multiple dispatchers to handle calls
- Dedicated fire/medical dispatchers trained to address discipline related requirements
- Development of standard operating procedures

Police management believed there to be drawbacks noted as:

- Lack of dispatcher familiarity with 'our' town.
- Perception that control of communications would not be in local hands
- Belief that residents don't want to change the status quo

During the on-site interviews, regionalized services were candidly discussed to try to ascertain the type of regional setting that could be envisioned for Avalon. Based upon the questionnaire responses it was believed that if non-emergency and public safety support services were assigned to separate staff so that the Police Department could still function, then regionalizing dispatch might be a consideration as long as it bore out financially. The most advantageous configuration for Police was believed to be an existing town-based regional center with two or three town's maximum perhaps beginning as a partial consolidation. This would allow agencies that offer similar operations and have similar political, fiscal and demographic conditions to align themselves. At this time though, Police do not see regionalizing dispatch to have an upside for them in the current method of how business is done today.

The Fire service only saw an upside for reasons stated throughout this assessment. Fire service believed that a single center with common management would be preferable using separate police and fire dispatch staff to perform the unique functions each discipline requires.

A repeated theme with each of the communities we met with is the need for a separated

Our general observation of the Avalon PSAP is that their newly renovated space provides dispatchers with the tools, lighting and facilities to excel at their functions however, the combination of tasks that often require simultaneous service to too many audiences has and will continue to dilute the emergency communications nature of the Emergency Dispatch job. There is an overwhelming need to maintain the status quo which may be driven by a concern regarding change and the ability for change to occur gracefully. Further, a history of caution when dealing with County government may be part of the underlying reticence to participate in a county-led initiative.

Governance and sustainability discussions with Avalon and others involved in the study yielded an overall understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions.

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4.11 Photographic Journal



Figure 4-4: View of Dispatch Center



Figure 4-5: Alternate View of Dispatch Center

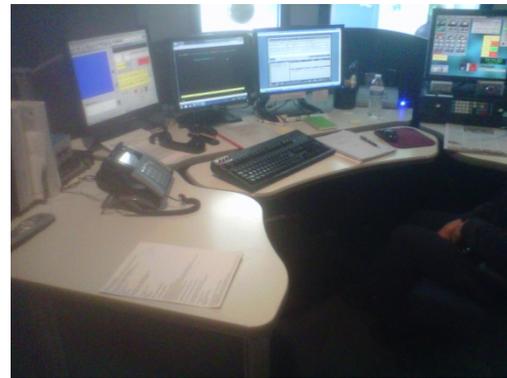


Figure 4-6: Alternate View of Dispatch

Cape May County, New Jersey Existing Conditions Assessment

App-B: 5.0 Stone Harbor PSAP

5.0 Stone Harbor PSAP

5.1 City of Stone Harbor Overview

The Stone Harbor PSAP and Communications Center provides call answering and first responder emergency dispatch services to the City of Stone Harbor for police, fire and medical. The City of Stone Harbor has a winter population of approximately 866 full time residents and a summer population in excess of 25,000 which has held constant over the past four years. The full time residential population represents a decline of 262 (-23.2%) from the 1,128 counted in the 2000 Census. The city is approximately 1.9 square miles.

Over the years, Stone Harbor has pursued opportunities to share costs with its neighbors to the north in Avalon. One of the most recent examples is an agreement with the Avalon School District for K-4 students of both communities to attend school in Stone Harbor while all 5-8 students attend school in Avalon.

Stone Harbor is facing an imminent decision regarding its PSAP that is used for emergency communications for police, fire and medical communications. The dispatch center is out of date and requires building improvements and equipment upgrades. According to Police representatives there has been money set aside for improvements but the City is considering various options one of which is to regionalize their dispatch services with Avalon pending the outcome of the Regional Feasibility Study report. Another option is to consider the larger consolidation which will include other barrier island and mainland communities.

5.2 PSAP Call Processing

Stone Harbor Police Department is the town's primary PSAP providing call answering and emergency dispatch support for police, fire and medical assistance. Like the other Cape May county communities, Stone Harbor utilizes the County OEM Center as their back up PSAP which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center. In addition to emergency communications calls, the communications center supports town-based calls, administrative calls and a variety of town-support services and functions including a Senior Call-In service.

Calls for Service	2011	2012	Percentage Change
Total 9-1-1 calls Received	*1249	*957	Less than 1% change
Total incoming call volume		12,809	
Fire/Medical CAD	113/217	109/201	
Total dispatched incidents (CFS)	**13,130	**12,809	2.5% change

Table 5-8: Calls for Service and Call Volume

*State 911 data based upon the number of ALI dips

**Stone Harbor's estimates from local CAD data;

Commercial property checks are done nightly which results in a single CAD event. This is done a bit differently in each community which may skew the Calls for Service on a month-to-month and year-to-year results.

Based upon local CAD data, 97% of the calls for service in 2011 and 2012 were responded to by Police. The remaining 7% of calls for service in 2011 are split between fire and medical response with less than 1% (113) requiring fire dispatched response and approximately 1.6% (217) requiring a medical response. The preceding four years from 2008-2010 have resulted in similar statistics for police calls for service which resulted in 97% of the calls; fire responses being no more than .08% of the total calls for service and medical responses resulting in about 1.7% of the total response. Administrative call volume and 'radio chatter' data were not available for this report.

On average, dispatchers may monitor from 2 in the winter to as many as 5 in July and August. Fire units are monitored but only on a per incident basis. At times there may be one dispatcher in the center handling all elements.

Peak season which runs from Memorial Day through Labor Day is the busiest months for Stone Harbor as reflected in the number of ANI dips recorded by the State of New Jersey's Office of Emergency Telecommunications.

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
2011	56	32	57	63	108	128	294	205	185	61	33	27
2012	32	18	31	38	88	111	181	186	97	68	73	34

Table 5-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by the OETS Stone Harbor experienced up to four times the emergency 911 call volumes during the peak seasonal period as compared to the average ANI dips throughout the other seven months of the year in 2011 and three times the emergency 911 call volumes in 2012. The Center's busiest day is Saturday and busiest hour is 7:00am. Average time to process a call from call answer to dispatch is less than one minute according to information provided by Stone Harbor Police.

5.3 Dispatch Operations

The Stone Harbor Communications Center performs a diverse set of tasks in support of Law Enforcement, Fire and E911 emergency communications services in addition to a host of public service and public safety support tasks most of which focus on information and reception type functions.

The primary role of City telecommunicators is to provide police, fire and ambulance agencies with emergency call answering and dispatch within the city limits of Stone Harbor. Depending on the request of the caller, the dispatchers retrieve the address, name, phone number and details relating to the call to dispatch to field units. During the fact finding and call interrogation the dispatcher is entering the information into the CAD system and then dispatches appropriate field units. Dispatchers are trained to provide

EMD although there is concern that the single dispatcher on duty is insufficient to devote sufficient time to the function in addition to supporting the extensive list of other services required for a fire and medical response.

Mutual aid and assistance calls are considered like any other call for service. Stone Harbor provides mutual aid to Middle Township and Avalon. The PSAP provides support to other town agencies as well including Animal Control, Department of Public Works and Beach Patrol.

Dispatchers are responsible for answering 4-E911 trunks and four administrative phone lines in addition to monitoring and responding to first responders on three police radio frequencies, dispatching 2 fire dispatch/ground channels and two EMS channels. E911 calls are given first priority followed by administrative lines. Radio traffic is monitored and acknowledged during calls as well. If multiple calls come in simultaneously, the dispatcher will place non-emergency phone calls on hold, prioritize the calls and deal with the highest priority call first. There are four administrative fire department lines which are answered at the fire station.

Stone Harbor's two-position center functions as a 'call hub' and administrative support center which is believed to detract from the fire/medical response emergency services dispatchers are intended to provide as the priority. The Stone Harbor Fire Chief believes this is due more to a lack of consistent experience in dispatching for fire services as it represents such a low percentage of total calls for service. However, when a fire incident is in progress, first responders expect to have the dispatcher familiar with handling the multiple service requirements associated with a given event. Most often the concern is over the processing of individual service requests to utilities (electric, gas and other), understanding of which apparatus to call out and monitoring of incident command/fire ground channels.

Dispatchers also provide a number of routine public safety and non-emergency support services as well as public, town-based services within the dispatch center. These activities include but are not limited to providing directions, addressing detainees 'rights', custody questions, municipal and police 'switchboard' for call transfers, animal control calls, warrant entries, validations, lobby walk-in traffic services and vehicle towing to name a few.

Prisoner monitoring is another activity dispatchers participate in. This includes monitoring of municipal jail activities via the internal camera system. While officers process prisoners, dispatchers monitor detainees live through the same camera system. Other duties include administrative support for prisoner inquiries from bondsmen, citizens and other law enforcement agencies who often inquire into the status of a given prisoner. Data is updated in the appropriate database but booking sheets are kept within the Dispatch Center for ease of reference as many calls come in for status updates.

Seasonal activities that impact dispatcher time and span of attention are beach patrol, the increased level of tourist traffic and call volume. These and other activities dispatchers participate in can be found in the following Table:

Dispatcher Services and Tasks	Check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering	<input checked="" type="checkbox"/>
Provide EMD	<input checked="" type="checkbox"/>
Transfer to EMD Provider	
Police Dispatch	<input checked="" type="checkbox"/>
Fire Dispatch (tone or radio)	<input checked="" type="checkbox"/>
Medical Dispatch	<input checked="" type="checkbox"/>
Ambulance Call Out to surrounding Towns	<input checked="" type="checkbox"/>
Routine Public Safety Tasks	
Request assistance of Highway/DPW	<input checked="" type="checkbox"/>
Request mutual aid/special services	<input checked="" type="checkbox"/>
Request wrecker assistance	<input checked="" type="checkbox"/>
Request wildlife removal	<input checked="" type="checkbox"/>
Walk-in Requests for Medical Assistance	<input checked="" type="checkbox"/>
Monitor prisoners in holding cells and booking area	<input checked="" type="checkbox"/>
Assist in prisoner evacuation in case of emergency	<input checked="" type="checkbox"/>
Process fingerprinting/fees	
NCIC lookups/Background checks	<input checked="" type="checkbox"/>
Enter warrants/restraining orders	<input checked="" type="checkbox"/>
File Protective Orders	
Activate Knox Box keys for Fire Dept	
Non Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	<input checked="" type="checkbox"/>
After hours pick-up/drop off for money and possessions	<input checked="" type="checkbox"/>
Walk-in Requests for advice/information/complaints/directions/town functions	<input checked="" type="checkbox"/>
Walk-ins with lost/stray dogs	<input checked="" type="checkbox"/>
Safe Haven	<input checked="" type="checkbox"/>
Provide keys for elevator and building access	
Maintain Parks and Recreation Permits	
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	
Assign officers to work vacancies	
Assignment of crossing guard posts	
Dispatcher Services and Tasks	
Check all that apply	
Provide paychecks to crossing guards	
Collect time cards	
Coordinate functions during special events	
POC for probation officers and meetings	
Electronically open/close sallyport doors and prison cells	<input checked="" type="checkbox"/>
Monitor/Receive incoming residential/commercial alarms	<input checked="" type="checkbox"/>

Table 5-3: Listing of Dispatch Service

5.4 Staffing

The Stone Harbor PSAP is authorized for 4 full time civilian call taker/dispatch staff and 4 reserve or part-time staff. The center is staffed with 3 full time dispatchers and 4 part timers. There is a police supervisor that provides dispatch management and support as well as a Captain who provides training and quality assurance review of incidents.

Normally, one dispatcher is on duty however during emergency conditions, two full time dispatchers and all sworn officers are called in for response.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	0
Operations Manager	0
Information Technology Coordinator	1-Patrol Sargent
Training/Quality Assurance	1-Captain
Administrative Assistant	0
Shift Supervisor	0
Call Taker/Dispatcher (FT)	3
Call Taker/Dispatcher (PT)	4
Shift Schedule:	12 hour shifts
Total	3 FT; 6 PT staff

Table 5-4: FTE Equivalents and Authorized Staff

The pay scale for the Communications Officer is \$25,000-\$55,617. Part-time dispatchers are paid on an hourly basis as \$15 per hour. Benefits are calculated at about 25% of salary and are based upon the United Auto Workers contract guidelines.

Stone Harbor along with several other communities participates in the same UAW union which has been resigned with a small increase in salary for a one year term pending available options to find a regional dispatch partnership.

5.5 PSAP Capabilities

The Stone Harbor Communications Center has 2 working positions. One of the positions acts as primary, the other is back-up and not fully functional. The 10x15 dispatch center requires rehabilitation and expansion to support anything more than the single active position. The second position functions on the same 911 consoles. Each dispatch position has four computer monitors, a 911/administrative phone, CAD/RMS, REJIS access for warrants and radios at each station. There is a primary keyboard for CAD and REJIS. The dispatch center requires rehabilitation and expansion to support anything

more than the single active position for Stone Harbor. There are bathroom facilities within the dispatch room however; coverage for bathroom breaks is required.

The UPS provides bridging power for 30 minutes as its main function is to act as a temporary power source until the generator kicks in. The County OEM Center is the back-up center for Stone Harbor.

Capabilities	PSAP System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	Enforsys Systems 5 Years Old
Mapping	none
E-911 Consoles and Equipment	Plant CML 20 year old 911 Console 4 911 Trunks
Radio Control Consoles and Equipment	Motorola Consoles 90 Portables 16 Mobiles Seasonal Staff: Lifeguards: 17 portables DPW: 30 portables

Table 5-5: Equipment Capabilities

5.6 Radio Systems and Frequencies

Stone Harbor dispatch operates predominantly off of a narrow banded VHF radio system using the following frequencies:

Frequency	License	Type	Tone	Alpha Tag	Description	Mode	Tag
155.67000	KEJ845	Receive	118.8 PL	StnHrbr PD1	Police Dispatch	FMN	Law Dispatch
155.14500	WPED881	RM		Island Fire 2	Police, Fire, EMS	TRBO	Multi-Tac
154.38500	WPAP551	RM	118.8 PL	Island Fire 1	Fire Dispatch/ Operations	FMN	Fire Dispatch
155.29500	KNCD839	BM	118.8 PL	EMS 1	County EMS Channel(Paramedic and Mutual aid Ops	FM	EMS-Talk
153.980		XMT			Fire/EMS Dispatch (County Fire Dispatch Freq)		Fire/EMS
154.130		RM	118.8		Police		Police
156.210					County		EMS
155.145	WPED881	RM	BEACH		Beach Operations	TRBO	Multi-TAC

Table 5-6: Radio Frequency Listing

5.7 Voice and Data Interoperability

There is no regional voice and data interoperability between Stone Harbor first responders and other disciplines within the County. Stone Harbor uses the Moto turbo product which offers digital VHG technology but is not P25 compatible. Cell phones are used to communicate with the Department of Public Works from the dispatch center after hours.

Stone Harbor requires interoperability for mutual aid purposes with Middle Township, North Wildwood, Avalon and Cape May Courthouse. There is limited communications to these area and known dead spots at 'South Point' and on the beach over the bridge.

5.8 Data Communications

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system, or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Stone Harbor PSAP operates on the Enforsys CAD/RMS system which is the same CAD/RMS system software program utilized by several other agencies within Cape May County. The town has three Mobile Data Terminals used in police cars. There is limited fire department record data although the current CAD/RMS platform can support it.

For the few communities that utilize the Enforsys system, inter-jurisdictional record sharing and reporting can be achieved. However, going forward establishing an integrated CAD/RMS and mapping data tool for inter-jurisdictional and inter-discipline records management and resource mapping will require a regional needs assessment by agency and discipline to best establish the feature functionality and level of service to support each discipline in a regional setting.

5.9 Training

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the course of the year. Telecommunicators are required to recertify every other year. The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED) - Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch course are also offered. Dispatchers in Stone Harbor are all New Jersey State Certified Telecommunicators and are EMD trained.

Every year or two telcommunicators must be recertified which includes Emergency Medical Direction. EMD flip cards and protocols are issued under the State Department of Health. In Stone Harbor, due to its size, fire department units who monitor the radio frequencies are able to accelerate their response enabling them to arrive on scene shortly after a medical call is initiated. This typically limits the amount of EMD a dispatcher

needs to become involved in. Some of the larger communities may require a greater degree of continuous medical direction to callers due to the time it takes to travel.

Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

5.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with the Stone Harbor Captain, Stone Harbor Fire Chief and observed the PSAP. Through these various interactions specific thoughts regarding regionalization and its impact on local operations and residents was discussed. Benefits of regionalizing dispatch services were considered to be:

- Standardized training
- Cross training of multiple dispatchers to handle calls
- Better use of resources by removing trained Police or Fire personnel off the desk and putting them on the street (when does this happen?)
- Development of standard operating procedures
- Development of a common records management system and reporting so communities can share information more readily

The corresponding drawbacks were noted as:

- Lack of dispatcher familiarity with 'our' town.
- Perception that control of communications would not be in local hands
- Dispatchers fear they may lose their current seniority position or salary and benefits may somehow be negatively impacted

During the on-site interviews, regionalized services were candidly discussed to try to ascertain the type of regional setting that could be envisioned for Stone Harbor. Based upon the questionnaire responses it was believed that a single center with common management would be preferable. Further it was expressed that the a partial consolidation where all agencies within the County may not transition to a single center but have the flexibility over time to consider its operation and benefits rather than a full-scale county wide transition at one time.

A repeated theme with each of the communities we met with is the need for a separated fire and medical dispatch function from that of police dispatch as the two functions require completely different orientation and operational understanding of first responder needs. The Stone Harbor Fire Chief, a 20 year advocate of regionalized fire dispatch, offered insight into the options that he considers viable which over time have included Ocean City's PSAP as well as his perspective that regionalizing with Avalon would yield no real service benefit to the fire service. To that end, he believes that service benefits would become apparent as long as Stone Harbor police and fire dispatch transitioned and it was not a single agency within Stone Harbor migrating to a regional environment.

To a large extent it is believed that the political environment within Cape May County has been the underlying reason why regionalizing has not gained sufficient traction in the region. As recent as three years ago, there was unanimous consent to develop a regional dispatch function.

Senior Police Management also voiced support for regionalization as long as many of the duties now assigned to the police department that are not emergency related can be staffed properly. This perspective is evidenced by the recent discussions between the Stone Harbor and Avalon Police Departments as Stone Harbor investigates immediate opportunities to transition their center to a more resilient environment.

Our general observation from our visit with Stone Harbor and follow up discussions is that this pivotal decision to participate in a regional dispatch or a more local dispatching effort has gained traction among law enforcement within Stone Harbor and has had years of support from Fire. Facing a \$100,000 plus investment in their own facilities and knowing that future technology investments will be required for NG-911 will continue to force Stone Harbor and other small communities to reconsider retaining a local dispatch function when a regional or multi-town environment, with the proper tools can ultimately provide the necessary emergency response required for a vacation tourist environment.

Governance and sustainability discussions with Stone Harbor and others involved in the study yielded an overall understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions.

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5.11 Photographic Journal



Figure 5-7: View of Dispatch Center from Lobby Walk-Up Window



Figure 5-8: Primary Dispatch Position



Figure 5-9: Secondary Dispatch Position

Cape May County, New Jersey Existing Conditions Assessment

App-B: 6.0 North Wildwood PSAP

6.0 City of North Wildwood PSAP

6.1 North Wildwood PSAP Overview

The North Wildwood PSAP and Communications Center provides call answering and first responder emergency dispatch services to all of North Wildwood for police, fire and medical assistance. Based on the 2010 census data the City has a population of approximately 4,041 full time residents, which is an 894 decline (-18%) from the last census taken in 2000. As a beach resort, its population increases to approximately 60,000 during the peak summer season from Memorial Day to Labor Day. North Wildwood was ranked the fourth-best beach in New Jersey in the 2008 Top 10 Beaches Contest sponsored by the New Jersey Marine Sciences Consortium.

North Wildwood borders Middle Township, Stone Harbor, Wildwood City, West Wildwood Borough, and the Atlantic Ocean. North Wildwood is governed under the Faulkner Act (Mayor-Council) form of government by a mayor and a six-member City Council.

During our August 1 interview with Police Chief Matthew Gallagher, newly appointed chief during this study, and Lieutenant John Stevenson, neither Police Administration nor City officials are interested in dispatch regionalization. Recently retired Chief Robert Matteucci did not return phone calls or return the study's data surveys, as requested early in the study.

This assessment is based on interviews with recently appointed Chief Gallagher, Lieutenant Stevenson, dispatchers, data provided by the State of New Jersey, and web research.

6.2 PSAP Call Processing

North Wildwood Police Department is the city's primary PSAP providing call answering and emergency dispatch support for police, fire, and medical assistance to its full time and summer residents. The Police Department and PSAP is located at 901 Atlantic Avenue.

According to the North Wildwood Police Department's website, the Department is comprised of 30 full-time officers, four full-time dispatchers, two secretaries, one records clerk, and a custodian. Each summer the Department hires approximately 45 seasonal employees, the majority of which are Class II Special Law Enforcement Officers, as well as parking enforcement officers and seasonal dispatchers. During the busy summer season, the Police Department organizes into six 7-9 person squads working 10 hour shifts, patrolling the City, the Boardwalk, and the bar corridor of the City.

According to the Department's website and confirmed in our interview with the Chief, the Police Department annually handles approximately 35,000 calls for service patrolling the 1.77 square miles of North Wildwood.

Dispatchers provide services to the Police Department, one paid Fire Department and two volunteer Fire & Rescue Departments, who provide EMS services. Other supported agencies are Beach Patrol and Public Works.

Like other Cape May County communities, North Wildwood utilizes the County OEM Center as its back-up PSAP, which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center.

In addition to emergency communications calls, the communications center supports town-based calls, administrative calls and a variety of police department support services.

North Wildwood Police did not provide CAD data as requested during the study. Call volume was estimated to be in the 35,000 range for annual Calls for Service.

Calls for Service	2011	2012	Percentage Change
Total 9-1-1 calls Received	** 4,494 State	** 5,078 State	+13% (+584)
Fire Calls (CAD Events)	N/A	N/A	N/A
Medical Calls (CAD Events)	N/A	N/A	N/A
Total Police dispatched incidents (CFS)	35,000 (est)	35,000 (est)	N/A

Table 6-9: Calls for Service and Call Volume

**State 911 data based upon the number of ALI dips

Administrative call volume and ‘radio chatter’ data were not available for this report.

North Wildwood operates with one dispatcher at all times during the off-season months. During summer months, two dispatchers are scheduled on all shifts, typically one full-time and one-part-time person. During special events/holiday week-ends, a third call-taker position may be added.

Peak season, which runs from Memorial Day through Labor Day (and even through September), are the busiest months for North Wildwood as reflected in the number of E911 ANI dips recorded by the State of New Jersey’s Office of Emergency Telecommunications.

NWW	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2011 911	173	132	125	223	534	685	954	750	446	180	137	155	4494
2012 911	153	149	136	222	552	707	842	814	597	269	401	236	5078

Table 6-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by OETS, 57% (2012) and 65% (2011) of North Wildwood’s 911 call volume occurs during the four month (May-August) peak seasonal period as compared to the average ANI dips throughout the other eight months of the year. November 2012 had high call volume immediately following Superstorm Sandy. The average monthly E911 call volume during the four summer months is 731, versus an off-season average of 196 per month.

6.3 Dispatch Operations

The North Wildwood Communications Center performs a diverse set of tasks in support of Law Enforcement, Fire/Rescue, and E911 emergency communications services in addition to a host of public service and public safety support tasks, most of which focus on information and reception type functions.

The primary role of dispatchers is to provide police, fire and rescue agencies with emergency call answering and dispatch within the City. Depending on the request of the caller, the dispatchers provide call receipt and confirm location information, caller's name, address, phone number, and nature of the call as well as other pertinent information. A CAD system is used to provide coordinated event support, radio dispatch and regularly updated information during the course of events in progress. When necessary, callers are instructed on emergency medical pre-arrival instructions until emergency response units have arrived. The dispatchers also perform NCIC/SCIC lookups as a regular part of their jobs. Non-emergency tasks include supporting patrol on traffic stops, parking and meter problems.

North Wildwood's communications center functions as a 'call hub' and administrative support center. Dispatchers provide a number of routine public safety and non-emergency support services within the dispatch center. Dispatchers are the first contact to the community.

North Wildwood, like many of the Cape May County communities, relies on its dispatchers for a variety of administrative and police-related functions that would not be defined as emergency communications, including greeting visitors, handling walk-in requests, answering incoming calls and taking messages (the Department does not use voice mail), and monitoring video camera surveillance from cameras located at the boardwalk, recreation center, and the 5th Street boat ramp. Dispatchers are also responsible for monitoring prisoners and providing occasional visual checks; at times during the off-season months, the dispatcher is the only person in the police station.

Call takers also receive calls from citizens located in Wildwood, Stone Harbor, Middle Township, and Lower Township; these calls are transferred to the appropriate PSAP for dispatch of service.

Mutual aid and assistance calls are considered like any other call for service. North Wildwood provides mutual aid to Wildwood City and Middle Township, and other nearby municipalities when requested. The response is initiated upon request from the jurisdiction either by phone or radio. Officers do not communicate radio-to-radio with other community's police officers, but are patched in through dispatch.

North Wildwood Police did not complete the Dispatch Services and Tasks table, so more detailed information is not available.

6.4 Staffing

The North Wildwood PSAP is currently staffed with four full time dispatchers. Four part-time dispatchers are added from May through September. All full-time dispatchers are trained in EMD. Sworn officers rarely work the dispatch desk.

Normally, two dispatchers are on duty during the summer season; however, during busy holiday week-ends/special events, a third person will be scheduled as a back-up call taker. Only one dispatcher is scheduled during the off-season.

Dispatchers are assigned to a squad, with the squad sergeant serving as their immediate supervisor. Since the dispatchers work hand-in-hand with the sergeant and a squad, they get to know the sworn officers and Class II seasonal officers; dispatchers often make the decision of who to call for certain types of incidents, based on their knowledge of the police officers’ experience. The Police Lieutenant is responsible for the administrative function of scheduling, human resources, etc. There is no dedicated position for training and quality assurance review of incidents.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	0
Operations Manager	0
Information Technology Coordinator	0
Training/Quality Assurance	0
Administrative Assistant	0
Shift Supervisor	0
Call Taker/Dispatcher (FT)	4
Call Taker/Dispatcher (PT)	4
Shift Schedule:	12 hour shifts 7A-7P; 7P-7A
Total	4 FT; 4 PT

Table 6-3: FTE Equivalents and Authorized Staff

Salary range data was not provided. Starting part-time salary was estimated as \$10 per hour. Pay is based on seniority. The dispatchers do not belong to a union.

6.5 PSAP Capabilities

Procedurally, dispatchers enter calls in the Archonix CAD system. Standard reports such as Calls for Service for Police, Fire and EMS along with a breakdown of the type of call for service total calls, busy hour by shift, and other requested call volume data were not provided.

Chief Gallagher was unfamiliar with the equipment in the dispatch center or the City’s frequencies. He did indicate the VHF frequencies have been narrowbanded, and he mentioned a repeater located at the 1900 Condos and on the police tower.

Capabilities	North Wildwood System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	CAD: Archonix RMS: Unknown if used
Mapping	Unknown
E-911 Consoles and Equipment	MAARS Consoles
Radio Control Consoles and Equipment	Motorola
Recording System	Logging Recorder/Instant Playback equipment

Table 6-10: Equipment Capabilities

6.6 Radio Systems and Frequencies

Information was not provided about the radio system, frequencies, or quantities of portables and mobile units. The following channels are licensed in North Wildwood, according to RadioRefernece.com:

Frequency	Input	License	Type	Tone	Alpha Tag	Description	Mode	Tag
155.64000	158.83500	WPFK476	RM	173.8 PL	N Wldwd PD	Police Dispatch / Operations	FMN	Law Dispatch
155.79000	158.79000	KNCD839	RM	118.8 PL	Islnd Fire 3	Island Fire 3 (Shared Interop for all Wildwoods)	FMN	Interop
154.25000		WNVS331	BM	118.8 PL	Islnd R.I.T.	Island R.I.T.	FMN	Fire-Tac
166.25000		WPDM642	M	118.8 PL	N Wldwd FG	Fireground Operations	FMN	Fire-Tac
151.02500	158.98500	WQCQ783	RM	118.8 PL	N Wldwd Resc	North Wildwood Rescue	FMN	EMS-Tac
154.02500		KNCD839	BM	118.8 PL	Islnd Fire 4	Island Fire 4 (Shared with Wildwood City)	FMN	Fire-Tac
155.16000		WNKS891	BM	118.8 PL	N Wldwd BP	Beach Patrol	FMN	Public Works

Table 6-11: Radio Frequency Listing

6.7 Voice and Data Interoperability

There is no regional voice and data interoperability between North Wildwood first responders and other disciplines within the County, although the county does use a county-wide channel to communicate on dispatch-to-dispatch and dispatch-to-car. During mutual aid support, there is no radio-to-radio interoperability, but voice communication is accomplished by patches through dispatch.

During interviews, the Police Chief indicated that North Wildwood Police provides mutual aid and has close working relationships with Wildwood City and Middle Township.

6.8 Training

All of North Wildwood's Public Safety Telecommunication Operators are required to receive and maintain EMD certification by the Office of Emergency Telecommunications Services in the Department of Law and Public Safety.

Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

6.9 Observations, Operational Procedures, Processes, and Study Goals

On August 1, 2013, the I/A Project team interviewed North Wildwood Police Chief Matthew Gallagher, Lieutenant John Stevenson, full-time dispatcher Carin Vey, and part-time dispatcher Conor Cormican. During our brief interview, specific thoughts were discussed regarding regionalization and its impact on local operations and residents.

Police Administration did not recognize any benefits of regionalizing dispatch services, and clearly stated throughout the interview that they do not support the concept of consolidated or regionalized dispatch. They also indicated the North Wildwood City administration is also not interested in participating in a county-wide regionalization model.

Police administration believed there to be significant drawbacks noted as:

- Lack of dispatcher familiarity with 'our' town and 'our people.'
 - A specific example cited by both Police Administration and the dispatchers was the City's use of Class II Special Law Enforcement Officers during the summer, and dispatchers' knowledge of "trouble spot addresses" to which they would not dispatch a Class II SLEO to certain locations or people.
 - Another example cited by dispatchers was their knowledge of the area, since many callers do not know where they are and refer to a hotel or other local landmark near the beach.
- Belief that residents and elected officials don't want to change the status quo.
- Concerns that dispatchers perform many critical tasks besides emergency communications that still need to be provided: greeting visitors, answering the business phone, handling walk-in requests, providing information to people, monitoring cameras, monitoring prisoners, etc.

Cape May County, New Jersey Existing Conditions Assessment

App-B: 7.0 Wildwood City PSAP

7.0 Wildwood City PSAP

7.1 Wildwood City PSAP Overview

The Wildwood PSAP and Communications Center provides call answering and first responder emergency dispatch services to the towns of Wildwood and West Wildwood for police, fire and medical assistance. Based on the 2010 census data the City has a winter population of approximately 5,325 people full time residents which is down from the last census taken in 2000; the summer population exceeds 100,000 plus. Wildwood is primarily a resort city that is surrounded by the towns of North Wildwood, West Wildwood and the Atlantic Ocean spanning an area of 1.3 square miles. Its most notable features are its beach and mile long boardwalk.

Wildwood is generally open to the concept of shared services where appropriately supported. Most recent efforts with respect to tourism have been agreed to between Wildwood, North Wildwood and Wildwood Crest. The current proposal includes "...pooling... collective efforts and assets to share various services, including, but not limited to, beach maintenance, lifeguarding, fire and police" according to Mayor Troiano. The communities "...are excited and thrilled to be collaborating with the other municipalities on this solution... working together for common goals."

Wildwood is a bit different from other tourist towns as it is considered more urban than its neighbors. This is seen in their crime rate which is higher than other communities. They also encounter more urban issues related to Section 8 housing, drugs and gang pressure. Police administration would prefer to focus on these issues than attend to the staffing and management of dispatch services.

7.2 PSAP Call Processing

Wildwood Police Department is the town's primary PSAP providing call answering and emergency dispatch support for police, fire and medical assistance to its full time and summer residents as well as those in West Wildwood. Dispatchers provide services to two law enforcement agencies, four volunteer and paid fire departments and one EMS agency. Other agencies that are supported by dispatchers are Beach Patrol and Public Works. Like the other Cape May county communities, Wildwood utilizes the County OEM Center as its back-up PSAP which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center. In addition to emergency communications calls, the communications center supports town-based calls, administrative calls and a variety of town-support services which are not as predominant as in other Cape May County towns.

Calls for Service	2011	2012	Percentage Change
Total 9-1-1 calls Received*	11,163	12,472	
Fire/Medical CAD Events	1738	1,869	
Total Police dispatched ** incidents (CFS)	37,944	48,927	

Table 7-12: Calls for Service and Call Volume

*State 911 data based upon the number of ALI dips

** Wildwood estimates from local CAD data

Based upon local CAD data, 97% of the calls for service in 2011 and 2012 were responded to by Police. The remaining 3% of calls for service in 2012 are split between fire and medical response with less than 1% (252) requiring fire dispatched response and approximately 2.3% (217) requiring a medical response. The preceding four years from 2008-2010 have resulted in similar statistics for police calls for service which resulted in 97% of the calls; fire responses being no more than .08% of the total calls for service and medical responses resulting in about 1.7% of the total response. Administrative call volume and ‘radio chatter’ data were not available for this report.

On average, dispatchers may monitor anywhere between four and twenty police units during a normal shift. During the summer months, dispatchers can be monitoring as many as 50 units. Dispatchers are also responsible for monitoring Fire/EMS units and animal control units. During winter months one dispatcher is on duty at all times however two are on duty during the summer. Notably, approximately 300 hours of officer time or 14% is needed to augment the staffing configuration.

The City of Wildwood has fairly consistent call volume throughout the year although it is clear when Peak Season comes. Calls from May Memorial Day through Labor Day and in Wildwood’s case through October are the busiest months as reflected in the number of ANI dips recorded by the State of New Jersey’s Office of Emergency Telecommunications.

Wildwood	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2011	447	402	477	558	1188	1635	2073	1610	1083	645	511	534	11,163
2012	524	546	609	651	1418	2060	1804	2049	1161	682	504	464	12,472

Table 7-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by OETS, Wildwood experienced almost a third more emergency 911 call volume during the four month peak seasonal period as compared to the average ANI dips throughout the other seven months of the year. In 2012 the four month season generated almost twice the emergency 911 call volume as was received for the seven month period. The Center’s busiest days are Friday and Saturday and busiest hours are 8-10pm and 8-10am. Average time to process a call from call answer to dispatch is estimated to be under a minute according to information provided by Wildwood Police.

7.3 Dispatch Operations

The Wildwood Communications Center performs specific tasks in support of Law Enforcement, Fire and E911 emergency communications services and a small number of on-emergency dispatch tasks. Most of dispatchers efforts are focused on emergency call answering and routine public safety support services such as call outs for mutual aid, Public Works, towing and background/NCIC lookups. Wildwood's dispatchers do not necessarily work as greeters as they are removed from public view. Their role is to provide services for non-emergency and administrative call answering and if there are residents that require assistance, they are available to provide ancillary town support services however this does not appear to be a large part of their function.

Although dispatchers do monitor prisoners remotely via camera, it is not their primary responsibility and it is believed that a Regional Dispatch Center could just as well handle that function as well as a town dispatch center. Arrests are not kept very long and are transferred very quickly to County. If there is an arrest, there is always a sworn officer in the building. DWI arrests are a consistent number year-round. They don't have a big spike in the summer.

Dispatchers are responsible for answering two E911 trunks and eight administrative phone lines in addition to monitoring and responding to first responders on up to five radio frequencies and monitoring fire ground channels at fire events. E911 calls are given first priority, then administrative lines. Radio traffic is monitored and acknowledged. If multiple calls come in simultaneously, the dispatcher will place non-emergency phone calls on hold, prioritize the calls and deal with the highest priority call first. There are four administrative fire department lines which are answered at the fire station.

Wildwood's two-position center functions as a 'call hub' for E-911 and non-emergency calls. The two position center is on the second floor of the police building away from direct public access which allows dispatchers to focus on their specific tasks. There are cameras located strategically on the boardwalk which are monitored reactively in the dispatch center as well as other higher risk locations such as housing projects and schools. There was no concern for a 'dark station' as a desk sergeant is always on duty.

Police Administration has observed that dispatchers in Wildwood tend to be using this as less of a full time career track as they are either retired or older. Managing the staffing function from a police perspective is considered to be difficult and at times. Dispatchers voiced concern over the following as it relates to a regional dispatch function:

- Need for additional training
- Operational and procedural gaps between agencies
- Familiarity with services to be offered
- Awareness of each communities 'unique-ness'

During discussion with Police Administration, it was widely held that 'island-wide' dispatching is a good concept and needs to be explored. The public perception in

Wildwood is that as long as emergency calls are answered, residents and police staff are satisfied as long as it is done properly and results do not suffer.

These and other activities dispatchers participate in can be found in the following Table:

Dispatcher Services and Tasks	Please check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering	<u>X</u>
Provide EMD	<u>X</u>
Transfer to EMD Provider	
Police Dispatch	<u>X</u>
Fire Dispatch (tone or radio)	<u>X</u>
Medical Dispatch	<u>X</u>
Ambulance Call Out to surrounding Towns	<u>X</u>
Routine Public Safety Tasks	
Request assistance of Highway/DPW	<u>X</u>
Request mutual aid/special services	<u>X</u>
Request wrecker assistance	<u>X</u>
Request wildlife removal	<u>X</u>
Walk-in Requests for Medical Assistance	<u>X</u>
Monitor prisoners in holding cells and booking area	<u>X</u>
Assist in prisoner evacuation in case of emergency	
Process fingerprinting/fees	
NCIC lookups/Background checks	<u>X</u>
Enter warrants/restraining orders	
File Protective Orders	
Activate Knox Box keys for Fire Dept	
Non Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	<u>X</u>
After hours pick-up/drop off for money and possessions	
Walk-in Requests for information/complaints/directions/town functions	<u>X</u>
Walk-ins with lost/stray dogs	<u>X</u>
Safe Haven	<u>X</u>
Provide keys for elevator and building access	
Maintain Parks and Recreation Permits	
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	
Assign officers to work vacancies	
Assignment of crossing guard posts	
Dispatcher Services and Tasks	
Provide paychecks to crossing guards	
Collect time cards	
Coordinate functions during special events	
POC for probation officers and meetings	
Electronically open/close sallyport doors and prison cells	<u>X</u>
Monitor/Receive incoming residential/commercial alarms	<u>X</u>

Table 7-3: Listing of Dispatch Service

7.4 Staffing

The Wildwood PSAP is authorized for 8 full time civilian call taker/dispatch staff and 2-3 seasonal part-time staff. The Center is currently staffed with 5 full time personnel although it is felt that 6 would be optimal. Police Department members are trained to fill in as needed which has been estimated to be 300 hours. There is a police operations captain that oversees the dispatch function although there is no direct supervision of the dispatchers. There is no dedicated position for training and quality assurance review of incidents. During off-season months, one dispatcher is on duty however during the season, two full time dispatchers are assigned to each shift.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	0
Operations Manager	0
Information Technology Coordinator	0
Training/Quality Assurance	0
Administrative Assistant	0
Shift Supervisor	0
Call Taker/Dispatcher (FT)	5
Call Taker/Dispatcher (Seasonal PT)	0
Shift Schedule:	8 hour shifts 7A-3P; 3P-11P; 11P-7A
Total	5 FT; 3 Seasonal PT staff

Table 7-4: FTE Equivalents and Authorized Staff

The pay scale for the dispatch position is \$34,000-\$59,000. Part-time dispatchers are paid on an hourly basis ranging from \$8.50-\$12.00 per hour. Benefits are calculated at about 34% of salary and are based upon the United Auto Workers contract guidelines. Dispatchers receive 12 holidays and approximately 12 days of vacation per year per contract.

Wildwoods along with several other communities participate in the UAW Union.

7.5 PSAP Capabilities

The Wildwood Communications Center has 2 working positions both of which are functional. The dispatch center includes a bathroom and requires rehabilitation and expansion to support anything more than the two active positions. The positions have one year old KML consoles with a ten year old Motorola radio system that supports 100

portables and approximately 20 mobile units. There are cameras located along beaches, in housing areas and schools. These monitors are located in the dispatch center for dispatchers to be aware of although proactive monitoring is not done.

Wildwood has a building generator. The County OEM Center is the back-up center for any overflow condition or outage.

Capabilities	County System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	CAD: Enforsys RMS: Enforsys
Mapping	None
E-911 Consoles and Equipment	KML
Radio Control Consoles and Equipment	Motorola Centracomm Console

Table 7-5: Equipment Capabilities

7.6 Radio Systems and Frequencies

Wildwood operates on UHF frequencies using an island-wide channel and a county-wide channel for interoperability.

The following channels are in operation in Wildwood:

Frequency	License	Type	Tone	Alpha Tag	Description	Mode	Tag
153.9350					Police		
154.96500	KNJJ259	RM	85.4 PL	OEM	Police Dispatch	FMN	Law Dispatch
155.53500	KNJJ259	M		Wldwd PD 2	Police Tactical	FMN	Law Tac
154.13000	KNCD839	BM	118.8 PL	Wldwd FD/EMS	Fire and EMS Dispatch	FM	Fire Dispatch
155.79000	KNCD839	RM	118.8 PL	Islnd Fire 3	Island Fire 3 (Shared Interop for all Wildwoods)	FM	Fire-Tac
154.02500	KNCD839	BM	118.8 PL	Wldwd FD 4	Fire Tactical Operations	FM	Fire-Tac
155.74500	KNJX314	BM	118.8 PL	Wldwd BP	Beach Patrol	FM	Public Works

Table 7-6: Radio Frequency Listing

7.7 Voice and Data Interoperability

There is no regional voice and data interoperability between Wildwood first responders and other disciplines within the County although the county does use a county-wide channel to communicate on dispatch to dispatch and dispatch to car. While MDT's have been installed in cars, there is not as much use of them as would be preferred. Voice interoperability could exist more than it does as most towns are UHF with the exception of Middle Township and some fire agencies.

Antennas are located in four areas around the City including:

- Sandman Tower (Wildwood Housing Authority).
- Wildwood Water Tower.
- Repeater at the North End of Town (19th and Boardwalk)
- Wildwood Crest at the Regency Motel

The communications console is configured such that the individual speakers for police communications and fire communications 'step' on each other and at times cancel out the other during incidents involving both disciplines. In these cases, fire can hear police but police cannot hear fire or dispatch.

7.8 Data Communications

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system, or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Wildwood operates on Enforsys SE, bought in 2004 which is used in most towns in the County. Although functional, it could be better and more use-able to pull reports and statistics. It is felt that there the data may not be as accurate as it should be. Police administrators believe that data will need to be qualified as there is a 'garbage in-garbage out' element to the system. If dispatchers put the wrong address in then all related elements are incorrect.

There is a wireless 911 map configured as part of the KML console however, it is not used for landline or wired 911 calls.

For the communities that utilize the Enforsys system, inter-jurisdictional record sharing and reporting can be achieved. However, going forward establishing an integrated CAD/RMS and mapping data tool for inter-jurisdictional and inter-discipline records management and resource mapping will require a regional needs assessment by agency and discipline to best establish the feature functionality and level of service to support each discipline in a regional setting.

7.9 Training

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the course of the year. Telecommunicators are required to recertify every other year. The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED) - Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch course are also offered. Dispatchers in Stone Harbor are all New Jersey State Certified Telecommunicators and are EMD trained.

Every year or two telecommunicators must be recertified which includes Emergency Medical Direction. EMD flip cards and protocols are issued under the State Department of Health. In Stone Harbor, due to its size, fire department units who monitor the radio frequencies are able to accelerate their response enabling them to arrive on scene shortly after a medical call is initiated. This typically limits the amount of EMD a dispatcher needs to become involved in. Some of the larger communities may require a greater degree of continuous medical direction to callers due to the time it takes to travel.

Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

7.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with the Wildwood Captain Ragalbuto and Wildwood Police Chief Long and observed the PSAP. Through these various interaction specific thoughts regarding regionalization and its impact on local operations and residents was discussed. Benefits of regionalizing dispatch services were considered to be:

- Cost savings
- Better use of resources by removing trained Police or Fire personnel off the desk and putting them on the street (when does this happen?)
- Shared maintenance of dispatch equipment
- Development of a state of the art facility

The corresponding drawbacks were noted as:

- Lack of dispatcher familiarity with 'our' town.
- Dispatchers fear they may lose their current seniority position or salary and benefits may somehow be negatively impacted

During the on-site interviews, regionalized services were candidly discussed to try to ascertain the type of regional setting that could be envisioned for Wildwood. Based upon the questionnaire responses it was believed that joining a regional model that offered two or three towns the opportunity to participate would be preferable. Further it was

expressed that the a single site with a common management structure where perhaps an advisory board comprised of police and fire representatives would be have the flexibility to address the issues and challenges of regional dispatch for Cape May.

To a large extent it is believed that the political environment within Cape May County has been the underlying reason why regionalizing has not gained sufficient traction in the region. As recent as three years ago, there was unanimous consent to develop a regional dispatch function.

Police Managers we spoke with believe that a single off island center located in a secured location that is not as at risk to flooding or weather conditions would be the most appropriate location to consider. This concept has been discussed for the better part of 20 years and it is felt that the more progressive Chiefs will want to have a say in its outcome.

Our general observation of the Wildwood PSAP is that in their particular case, regionalized services will have a positive impact on the process of policing within he community so that already scarce resources can be re-devoted to the task of policing what is considered the most urban community within the county. Most residents would not be impacted by the move as dispatch is already out of the public view and there would be few if any ‘dark station’ concerns as there is almost always a Desk Sergeant on duty.

Governance and sustainability discussions with Wildwood and others involved in the study yielded an overall understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions. Wildwood Police managers believed that a model to follow is the County SWAT team that is comprised of Police Chiefs that act as the Board for overseeing it. There is a complementary team for the Fire service as well.

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7.11 Photographic Journal



Figure 7-10: View of Dispatch Center Positions 1 and 2 Figure 7-11: Screen shot

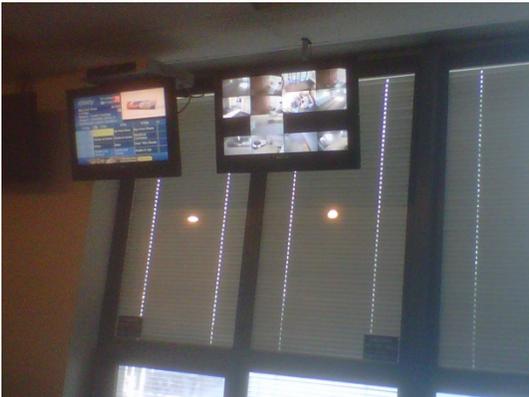


Figure 7-3: Monitors of Camera locations



Figure 7-4: EMD Card File System



Figure 7-5: PSAP Lobby

Cape May County, New Jersey Existing Conditions Assessment

App-B: 8.0 Wildwood Crest PSAP

8.0 Borough of Wildwood Crest PSAP

8.1 Borough of Wildwood Crest Overview

The Wildwood Crest PSAP and Communications Center provides call answering and first responder emergency dispatch services to the Borough of Wildwood Crest for police, fire and medical. Based on the 2010 census data the Borough has a winter population of approximately 3,270 full time residents which is down 17.8% from the last census taken in 2000. According to Police data, the summer population exceeds 60,000 and can swell to over 100,000 on summer week-ends. Wildwood Crest borders Wildwood City to the North, Diamond Beach (part of Lower Township) to the South, Lower Township to the West, and the Atlantic Ocean to the East. The borough is approximately 1.134 square miles. It was ranked the second-best beach in New Jersey in the 2008 Top 10 Beaches Contest sponsored by the New Jersey Marine Sciences Consortium. The Borough is governed by a Walsh Act three Commission Government.

According to data provided by the Police Department, they do not believe the public is interested in shared services. Recent press (February-March 2013) has reported that Wildwood, North Wildwood, and Wildwood Crest, along with the Greater Wildwoods Tourism Improvement and Development Authority, plan to form a shared services committee to formally discuss how the towns can combine services and save money. Key discussion involves sharing the island's beach patrols and beach maintenance programs, although other shared services options have also been mentioned. However, Wildwood Crest's Mayor has made it clear that no island-wide shared services would be implemented until 2014 in the next budget cycle. Wildwood Crest already shares some services with North Wildwood, specifically their use of the same construction official.

The Wildwood Crest PSAP provided dispatch services to West Wildwood for ten years until December 31, 2012, but the police indicated it was a challenge, due to differing protocols and regulations, and they are pleased to be out of the shared services agreement and are not interested in serving other communities.

8.2 PSAP Call Processing

Wildwood Crest Police Department is the borough's primary PSAP providing call answering and emergency dispatch support for police, fire and medical assistance. The Police Department and PSAP is located at 6101 Pacific Avenue in Wildwood Crest. The Police Department consists of sworn law enforcement officers, Class II and Class I Special Law Enforcement Officers, 4 full time and 5 part time dispatchers, and administrative support personnel.

Dispatchers provide services to one law enforcement agency, one volunteer fire company (Wildwood Crest Volunteer Fire Company No. 1) and one EMS agency (Wildwood Crest Volunteer Ambulance Corp).

Like the other Cape May county communities, Wildwood Crest utilizes the County OEM Center as its back up PSAP, which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center. In addition to emergency communications calls, the communications center supports town-based calls, administrative calls and a variety of police department services and functions.

Wildwood Crest Police Department did not provide call for service data for 2012. The Police Department responded to 25,326 calls for service in 2011.

Calls for Service	2010	2011	2012	Percentage Change
Total 9-1-1 calls Received		3,309*	3,720	11% change
Fire/Medical CAD Events	218/751	217/779		
Total Police dispatched incidents (CFS)**	28,650	25,326		

Table 8-13: Calls for Service and Call Volume

*State 911 data based upon the number of ALI dips

**From Wildwood Crest CAD data; includes police calls, fire, and rescue call support

Based upon local CAD data, all calls for service were responded to by Police. Of the total Calls for Services in 2011, 4% involve fire and medical response with less than 1% (218) requiring fire dispatched response and 3% (779) requiring a medical response. The preceding three years from 2008-2010 have resulted in similar statistics for police calls for service; 2009 saw the highest number of fire and EMS calls, with fire responses still being 1% (246) of the total calls for service and medical responses resulting in 4% (802) of the total response.

Administrative call volume and ‘radio chatter’ data were not available for this report.

On average, the dispatcher may monitor 2 police units in the winter and up to 4 in the summer. This is in addition to Fire/EMS and Public Works. For the most part, Wildwood Crest operates with one dispatcher at all times even during peak busy periods over the hectic summer months.

Peak season, which runs from Memorial Day through Labor Day (and even through September), are the busiest months for Wildwood Crest as reflected in the number of ANI dips recorded by the State of New Jersey’s Office of Emergency Telecommunications.

Wildwood Crest	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2011	158	142	136	151	293	391	573	659	356	194	146	110	3,309
2012	121	123	193	161	785	487	510	628	300	191	115	106	3,720

Table 8-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by the OETS, Wildwood Crest experienced almost four times the emergency 911 call volume during the five-month peak seasonal period as compared to the average ANI dips throughout the other seven months of the year in 2012 and over three times the emergency 911 call volume in 2011.

According to data provided by Wildwood Crest Police, the Center's busiest periods are Friday and Saturday nights and busiest hours are 6 pm to 2 am. Average time to answer a call, both in normal and busy hour periods, ranges between 2 to 5 seconds, and the average time to process a 911 call (from pickup to dispatch) is less than 30 seconds. Police indicate that all areas of Wildwood Crest can be reached in 90 seconds by responding patrol cars. Data was not provided for average time on incident from time of dispatch to time to clear the scene.

8.3 Dispatch Operations

The Wildwood Crest Communications Center performs a diverse set of tasks in support of Law Enforcement, Fire and E911 emergency communications services in addition to a host of public service and public safety support tasks most of which focus on information and reception type functions.

The primary role of Borough telecommunicators is to provide police, fire and ambulance agencies with emergency call answering and dispatch within the municipal limits of Wildwood Crest. Depending on the request of the caller, the dispatchers retrieve the address, name, phone number and details relating to the call to dispatch to field units. During the fact finding and call interrogation the dispatcher is entering the information into the CAD system and then dispatches appropriate field units. Dispatchers are trained to provide EMD although there is concern from the Fire Chief that the single dispatcher on duty is insufficient to devote sufficient time to the function in addition to supporting the extensive list of other services required for a fire and medical response.

Mutual aid and assistance calls are considered like any other call for service. Wildwood Crest provides mutual aid to Wildwood City, Lower Township, and other nearby municipalities when requested. The response is initiated upon request from the jurisdiction either by phone or radio. The PSAP provides support to other town agencies as well, including Department of Public Works and Beach Patrol.

Dispatchers are responsible for answering two E911 trunks and administrative phone lines in addition to monitoring and responding to first responders on five radio frequencies and monitoring fire ground channels at fire events. E911 calls are given first priority followed by administrative lines. Radio traffic is monitored and acknowledged during calls. If multiple calls come in simultaneously, the dispatcher will place non-emergency phone calls on hold, prioritize the calls and deal with the highest priority call first. There is one administrative fire department line and one administrative rescue squad line, which are answered by the police dispatcher.

Wildwood Crest's communications center with one dispatcher on duty functions as a 'call hub' and administrative support center. Police administration and the senior dispatcher indicated that the dispatchers have learned to multi-task and are never overwhelmed with multiple calls or demands on their time.

In a subsequent interview with the Wildwood Crest Fire Chief, he believes there are times when the dispatcher is too busy and cannot dedicate adequate resources to fire/medical emergency responders and their needs. The Fire Chief believes this is due more to a lack of consistent experience in dispatching for fire services as it represents such a low percentage of

total calls for service, especially when dealing with relief or less experienced dispatchers. However, when a fire incident is in progress, first responders expect to have the dispatcher familiar with handling the multiple service requirements associated with a given event. Most often the concern is over the processing of individual service requests to utilities (electric, gas and other), understanding of which apparatus to call out and monitoring of incident command/fire ground channels which has a significant impact on the confidence of the firefighting team as they are unsure of the level of service they will receive once they are dispatched.

Dispatchers provide a number of routine public safety and non-emergency support services within the dispatch center. The Police Department does not have a desk sergeant downstairs, so dispatchers are the first contact to the community. They provide what the Department views as a critical “meet and greet” function, handling lobby walk-in traffic services, taking reports, providing directions and other customer support functions to tourists visiting the resort community, and serving as the municipal and police ‘switchboard’ for call transfers.

Dispatchers monitor cameras located in schools, town buildings, and other key spots throughout the Borough. Additional cameras are being placed at the pier, walkway, and Rambo Boulevard. Seasonal activities that impact dispatcher time and span of attention include monitoring and dispatching responses to the beach patrol, special events, and many other circumstances that come up during the summer months.

Dispatchers provide a key role by monitoring an officer’s safety while a suspect is being processed, arrested, and finger printed and calling for additional police back-up if a situation warrants it. Prisoner monitoring is another activity dispatchers participate in. This includes passive monitoring of municipal detention activities via the internal camera system and occasionally visually checking on a detainee if something appears suspicious based on the camera display. Dispatchers are often the primary person in the station during nights and off-season week-ends.

Police administration indicated that they would need to bring in an additional person to provide these functions, if dispatchers were no longer located in the building.

These and other activities dispatchers participate in can be found in the Table on the next page.

Dispatcher Services and Tasks	Please check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering	<input checked="" type="checkbox"/>
Provide EMD	<input checked="" type="checkbox"/>
Transfer to EMD Provider	<input checked="" type="checkbox"/>
Police Dispatch	<input checked="" type="checkbox"/>
Fire Dispatch (tone or radio)	<input checked="" type="checkbox"/>
Medical Dispatch	<input checked="" type="checkbox"/>
Ambulance Call Out to surrounding Towns	<input checked="" type="checkbox"/>
Routine Public Safety Tasks	
Request assistance of Highway/DPW	<input checked="" type="checkbox"/>
Request mutual aid/special services	<input checked="" type="checkbox"/>
Request wrecker assistance	<input checked="" type="checkbox"/>
Request wildlife removal	<input checked="" type="checkbox"/>
Walk-in Requests for Medical Assistance	<input checked="" type="checkbox"/>
Monitor prisoners in holding cells and booking area	<input checked="" type="checkbox"/>
Assist in prisoner evacuation in case of emergency	<input checked="" type="checkbox"/>
Process fingerprinting/fees	
NCIC lookups/Background checks	<input checked="" type="checkbox"/>
Enter warrants/restraining orders	<input checked="" type="checkbox"/>
File Protective Orders	<input checked="" type="checkbox"/>
Activate Knox Box keys for Fire Dept	<input checked="" type="checkbox"/>
Non Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	<input checked="" type="checkbox"/>
After hours pick-up/drop off for money and possessions	<input checked="" type="checkbox"/>
Walk-in Requests for advice/information/complaints/directions/town functions	<input checked="" type="checkbox"/>
Walk-ins with lost/stray dogs	<input checked="" type="checkbox"/>
Safe Haven	<input checked="" type="checkbox"/>
Provide keys for elevator and building access	<input checked="" type="checkbox"/>
Maintain Parks and Recreation Permits	
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	
Assign officers to work vacancies	
Assignment of crossing guard posts	
Dispatcher Services and Tasks	
Provide paychecks to crossing guards	<input checked="" type="checkbox"/>
Collect time cards	
Coordinate functions during special events	
POC for probation officers and meetings	
Electronically open/close sallyport doors and prison cells	<input checked="" type="checkbox"/>
Monitor/Receive incoming residential/commercial alarms	<input checked="" type="checkbox"/>

Table 8-3: Listing of Dispatch Service

8.4 Staffing

The Wildwood Crest PSAP is authorized for 4 full time civilian call taker/dispatch staff and “unlimited” relief/part-time staff. The Center is currently staffed with 4 full time dispatchers, each assigned to a patrol squad on a rotating basis. This encourages the dispatchers to develop professional relationships with the first responders they interact with. All full-time staff are trained EMD dispatchers. The Department currently employs 5 part-time dispatchers for relief staffing.

Normally, one dispatcher is on duty in the dispatch center at all times. Emergency response staffing (for example, during a large storm or anticipated busy holiday event) would have two dispatchers on duty, if needed, and four Police Officers available with additional support staff. Sworn officers are not regularly assigned to the dispatch desk (0% of their time) and will do so only in an emergency. The Department uses part-time relief dispatchers to fill scheduling gaps and as needed to staff a second position on busy week-ends or special events.

Dispatchers are assigned one per police squad and they report to the respective Squad Sergeant. There is a designated Senior Dispatcher. The Police Lieutenant and the Senior Dispatcher provide training and quality assurance review of incidents, including a monthly review of protocols. The Police Captain serves as the Center Director.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	1-Captain
Operations Manager	0
Information Technology Coordinator	0 (contracted out)
Training/Quality Assurance	1-Lieutenant
Administrative Assistant	0
Shift Supervisor	Police Squad Sergeant
Call Taker/Dispatcher (FT)	4
Call Taker/Dispatcher (PT)	5
Shift Schedule:	12 hour shifts 7AM-7PM; 7PM-7AM
Total	4 FT; 5 PT staff

Table 8-4: FTE Equivalents and Authorized Staff

The pay scale for the Communications Officer averages \$25,500. Part-time dispatchers are paid on an hourly basis at \$14 per hour. Benefits are calculated at about 59% of salary and are based upon contract guidelines. During their 12-hour shift, they receive a 30-minute lunch break and two 15-minute personal breaks. They are scheduled to work 168 days/year, with 14 12-hour shifts scheduled monthly. Wildwood Crest dispatchers are contractual employees.

8.5 PSAP Capabilities

The Wildwood Crest Communications Center consists of two console positions, one primary and one backup, both of which are functional. At the time of our site visit, the Police Department was planning a renovation of the dispatch center, both physical configuration of the space to make it more comfortable and upgrading of equipment; therefore, pictures were not taken of the existing space.

The positions have 17-year old E911 consoles that are not Phase II capable, but are currently being updated and will be Phase II capable following the upgrade. The dispatch center, radio system, E911 system, CAD, and RMS systems are all in the process of being updated.

Cameras are located throughout the Township, with video displayed on screens located in the communications center for dispatchers to monitor.

Wildwood Crest has a building generator. The County OEM Center is the back-up center for any overflow condition or outage.

Capabilities	Wildwood Crest System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	8-year old Enforsys SE – CAD (Upgrading to Expanding Edition by April 2013) 8-year-old Enforsys – RMS
Mapping	None currently Upgraded CAD will have Google Maps
E-911 Consoles and Equipment	17-year old KML /Verizon (upgrading to be Phase II Capable)
Radio Control Consoles and Equipment	Avtec Scout Radio Console (new) 17-year old Motorola radio system (currently updating)
Logging Recorder and Instant Recall Recorder	NICE

Table 8-5: Equipment Capabilities

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8.6 Radio Systems and Frequencies

Wildwood Crest is currently in the process of updating its 17-year old Motorola radio system. Police and Fire operate on VHF frequencies, which have been narrowbanded, with one transmitter and a repeater at Ocean Place Condominiums, 7100 Ocean Avenue. The radio system supports 40 portables and 17 mobile units. Coverage is good throughout the municipality, with no areas of poor coverage or dead spots identified. Dispatchers also use a paging/alerting system, and fire and EMS are dispatched using both tones and radio.

The Fire Company has its own repeater on top of the Regis Motel (9201 Atlantic Avenue), Motorola portables, and a Plextron base station. They operate off the Wildwood Crest fire frequency (working channel 8).

According to Police Data, dispatchers utilize and monitor one police frequency, four fire, one EMS, one Public Works, six surrounding agencies, one County, and SPEN 1 through 4 frequencies.

The following licensed VHF channels are in operation in Wildwood Crest, according to RadioReference.com:

Frequency	Input	License	Type	Tone	Alpha Tag	Description	Mode	Tag
155.4300	154.8300	KEA750	RM	118.8 PL	Wld Crst PD1	Police	FM	Law Talk
151.1300	159.3225	WQAH765	RM	125 DPL	Wld Crst FD	Fire Ops	FMN	Fire-Talk
155.2950		KNCD839	BM	118.8 PL	Wld Crest Resc.	Rescue Ops	FM	EMS-Talk
155.2650		WPLR987	BM	141.3 PL	Wld Crest BP	Beach Patrol/ Lifeguards	FM	Public Works
155.7900		KNCD839	BM	118.8 PL	Islnd Fire 3	Island Fire 3 (Shared Interop for Wildwoods)	FM	Fire-Tac

Table 8-6: Radio Frequency Listing

8.7 Voice and Data Interoperability

As there is no formalized methodology to achieve County wide interoperability, each town and borough has taken it upon themselves to work within their limited budgets to develop individual interoperability solutions. All of the Wildwoods utilize a fire frequency for Shared Interoperability for all the Wildwoods (Fire 3), but according to the Fire Chief, it gets extremely congested and is therefore not very functional.

Going forward, a county-wide strategy and philosophy will need to be created in order to achieve any level of inter-agency communications between and among towns along the Barrier Island and Mainland regardless of whether a regional dispatch communications center becomes a reality or not.

8.8 Data Communications

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and

coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system, or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Wildwood Crest operates on Enforsys CAD/RMS, currently being upgraded to the Expanded Edition; Enforsys is used by most PSAPs in the County. Fire does not have its own CAD system but is supported through the PSAP Enforsys CAD. For the communities that utilize the Enforsys system, inter-jurisdictional record sharing and reporting could be achieved. However, going forward establishing an integrated CAD/RMS and mapping data tool for inter-jurisdictional and inter-discipline records management and resource mapping will require a regional needs assessment by agency and discipline to best establish the feature functionality and level of service to support

8.9 Training

All of Wildwood Crest’s full-time dispatchers are EMD trained and certified. They are also trained and certified in 911 call answering and CPR. Training is provided in house.

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the course of the year. Telecommunicators are required to take an initial training protocol of 40 hours that certifies them for life. Emergency Medical Dispatch is a 32 hour course that requires recertification every other year.

EMD flip cards and protocols are issued under the State Department of Health.

The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED) - Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch course are also offered. Dispatchers in Stone Harbor are all New Jersey State Certified Telecommunicators and are EMD trained. Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

8.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with Wildwood Crest Police Chief Thomas DePaul, Captain David Mayer, Lieutenant Michael Hawthorne, Chief Dispatcher Ralph DiLossi, on-duty dispatcher Special Officer Macdonald, and observed the PSAP. A subsequent telephone interview was held with Fire Chief David Thompson. Through these various interactions specific thoughts regarding regionalization and its impact on local operations and residents was discussed.

Police management did not recognize any benefits of regionalizing dispatch services, and clearly stated throughout the interview that they do not support the concept of consolidated or regionalized dispatch.

Police management believed there to be significant drawbacks noted as:

- Lack of dispatcher familiarity with ‘our’ town.
- Belief that residents and elected officials don’t want to change the status quo
- Concerns that dispatchers perform many critical tasks besides emergency communications that still need to be provided (greeter, call answering, report taker, monitoring borough cameras, officer backup, prisoner monitoring, etc.)
- Concerns that regional dispatch would lead to slower response times and confusion

Fire Officials consider benefits to regionalizing dispatch to be:

- Better, standardized training
- Cross training of multiple dispatchers to handle calls
- Dedicated fire/medical dispatchers trained to address discipline related requirements and fire procedures
- Dispatcher available to monitor fire/ground communications

The Fire Chief only saw an upside to centralized county-wide dispatch for reasons stated throughout this assessment and indicated they have wanted centralized fire dispatch for a long time. Fire service believed that a single center would be preferable but with dedicated fire dispatch staff to perform the unique functions its discipline requires. Fire does not care where a centralized center is located, as long as it is able to maintain strong, clear radio communications to the Wildwood Crest first responders.

During the on-site interviews, regionalized services were candidly discussed to try to ascertain if any type of regional setting could be envisioned for Wildwood Crest. Based upon the questionnaire responses it was believed that if non-emergency and public safety support services were assigned to separate staff so that the Police Department could still function, then regionalizing dispatch could be a consideration as long as it bore out financially, although the Police Department clearly are not in favor of this option.

The most advantageous configuration for Police would be an existing town-based regional center with two or three “like-minded resort towns” perhaps beginning as a partial consolidation. This would allow agencies that offer similar operations and have similar political, fiscal and demographic conditions to align themselves. At this time though, Police do not see regionalizing dispatch to have an upside for them in the current method of how business is done today.

Our general observation of the Wildwood Crest PSAP is that its soon-to-be renovated space will provide dispatchers with the tools, lighting and facilities to perform their functions; however, the combination of tasks that often require simultaneous service to too many audiences has and will continue to dilute the emergency communications nature of the emergency dispatch job. There is an overwhelming need to maintain the status quo which may be driven by a concern regarding change and the ability for change to occur gracefully. Further, a negative history with shared dispatch communications experienced when

Wildwood Crest was providing dispatch services to West Wildwood may lead to ongoing reticence to participate in a county-led regionalization initiative.

Governance and sustainability discussions with Wildwood Crest and others involved in the study yielded an overall understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions.

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8.11 Photographic Journal



Figure 8-1: Wildwood Crest Dispatch

Cape May County, New Jersey Existing Conditions Assessment

App-B: 9.0 Cape May City PSAP

9.0 Cape May City PSAP

9.1 Cape May City PSAP Overview

The Cape May City PSAP and Communications Center provides call answering and first responder emergency dispatch services to the Cape May City for police, fire and medical. As of the 2010 United States Census, the city had a year-round population of 3,607, reflecting a decline of 427 (-10.6%) from the 4,034 counted in the 2000 Census. In the summer, Cape May's population is expanded by as many as 40,000 to 50,000 visitors. Cape May is separated from the New Jersey mainland by Cape May Harbor and the Cape Canal, which is part of the Intracoastal Waterway. This island is shared by the City of Cape May, the Boroughs of West Cape May and Cape May Point, and a portion of Lower Township. Cape May City shares municipal borders with the Borough of West Cape May and Lower Township. The city is approximately 4.9 square miles.

As expressed in the City of Cape May's Community Visioning Statement, "...Cape May shall also continue its cooperative planning including the beach replenishment program and shared service agreements that include police, fire and rescue services. Continued regional planning including shared service agreements with neighboring communities for various services shall also be continued and promoted by the City to keep costs down for the taxpayers." These sentiments were clearly expressed during our initial meeting with the Police and Fire Chiefs, City Mayor and other Senior Managers that participated in our meetings who feel that if a regionalized dispatch service can serve the communities financial and operational well-being they would be supportive of it.

9.2 PSAP Call Processing

Cape May City Police Department is organizationally responsible for housing the PSAP and providing call answering and emergency dispatch support for police, fire and medical assistance. Like the other Cape May county communities, Cape May City utilizes the County OEM Center as their back up PSAP which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center. In addition to emergency communications calls, the communications center supports the Town of West Cape May's emergency E-911 calls, and both towns non-emergency, administrative calls and a variety of town-support services and functions including a Senior Call-In service.

Calls for Service	2011	2012	Percentage Change
Total 9-1-1 calls Received	3,459 *	3,545	Less than 1% change
Estimate Total Call Volume		***33,006	
Fire/Medical CAD Events	329/925	1,472	13% change
Police		17,206	
Total dispatched incidents (CFS)**	24,862**	25,389**	2% change

Table 9-14: Calls for Service and Call Volume

*State 911 data based upon the number of ALI dips **Cape May City local CAD data

*** Industry estimates for total call volume are 3-5 times that of total CAD events. Three times is being used for this study

Based upon local CAD data, 93% of the calls for service in 2011 and 2012 were responded to by Police. The remaining 7% of calls for service in 2012 are split between fire and medical response and ‘other’ with 4.6% requiring fire/EMS dispatched response and approximately just over 2% being undefined. The preceding four years from 2008-2010 have resulted in similar statistics for police calls for service being 93% of the calls; fire responses being no more than 1% of the total calls for service and medical responses resulting in about 3.5% of the total response. Although not specifically counted, administrative call volume is estimated at 20 times that of emergency call volume especially during peak season.

It is worth mentioning that Cape May City has installed an automated attendant system that prompts callers to specific agencies and departments based upon their questions. Callers have been known to press 0 which routes them to the dispatcher or press 1 which routes the caller to the clerk’s office. This process has significantly increased the calls the dispatcher handles that are typically not emergency related.

On average, dispatchers may monitor up to six police units in the winter and as many as 20 in the summer. This is in addition to Fire/EMS and animal control units. Cape May City operates with one dispatcher at all times even during peak busy periods over the hectic summer months.

Peak season runs from Memorial Day through Labor Day are the busiest months for Cape May City. This peak busy period can even begin as early as April or extend into October as occurred during 2011. This data is reflected in the number of ANI dips recorded by the State of New Jersey’s Office of Emergency Telecommunications.

Cape May City	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec		Total
2011	129	120	145	163	293	345	633	469	314	182	146	142		3459
2012	192	108	164	250	347	460	452	587	387	274	169	155		3545

Table 9-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by the OETS Cape May City experienced two and a half times the emergency 911 call volume during the peak seasonal period as compared to the average ANI dips throughout the other seven months of the year in 2011 and about one and a half times the emergency 911 call volume in 2012 although the peak was over a protracted period and included two additional months. The Center’s busiest days are Saturday and busiest hours are 8am with an average of 15-25 calls per hour during the busy shift. Average time to process a call from call answer to dispatch is one minute according to information provided by Cape May City Police. Current response times are within 2 minutes in Cape May; within 2-3 minutes for West Cape May and within 3-5 minutes for Cape May Point.

9.3 Dispatch Operations

The Cape May City Communications Center performs a diverse set of tasks in support of Law Enforcement, Fire and E911 emergency communications services for Cape May City, Cape May Point and West Cape May that focus primarily on town-based public service and public safety support such as information and reception type functions. Many of the calls both emergency and non-emergency are sent to Cape May City PSAP as very often tourists will not know specifically where in Cape May County they are located. The result is that Cape May City dispatchers receive a disproportionate amount of un-related calls that are then transferred to the appropriate agency or back to the County for resolution.

Depending on the caller's request, the dispatchers retrieve the address, name, phone number and details relating to the call to dispatch to field units. During the fact finding and call interrogation the dispatcher enters information into the CAD system either manually or through 911 logs. Calls are date and time stamped and all updates are input into the CAD record as first responders provide it. and then dispatches appropriate field units. Dispatchers are trained to provide EMD although there is concern that the single dispatcher on duty is insufficient to devote sufficient time to the function in addition to supporting the extensive list of other services required for a fire and medical response.

Administrative calls are handled much as emergency calls are by first identifying if and what the situation is. Non-emergency calls are transferred to the appropriate agency where possible. On a typical off-peak day four full time officers are monitored along with fire/rescue personnel and the SPEN channel. During the peak months, four full time officers, up to 20 Class 1 and 2 officers and fire/rescue personnel are monitored as well as the SPEN channel. Mutual aid and assistance calls are considered like any other call for service. Cape May City. This level of activity is most often provided by a single dispatcher who may also need to handle simultaneous incidents at separate locations. While this type of activity is the 'norm' for Cape May City, it comes with a down side during mutual aid or fire/rescue events as multiple service requirements often need to be addressed instantaneously.

Dispatchers are responsible for answering two E911 trunks and four administrative phone lines in addition to monitoring and responding to first responders on three radio frequencies and monitoring fire ground channels at fire events. E911 calls are given first priority, then administrative lines. Radio traffic is monitored and acknowledged. If multiple calls come in simultaneously, the dispatcher will place non-emergency phone calls on hold, prioritize the calls and deal with the highest priority call first. There are four administrative fire department lines which are answered at the fire station.

Cape May City's one-position center functions as a 'call hub' and administrative support center which processes every call coming into each of the three communities it supports and Lower Township for Mutual Aid calls. Additionally, dispatchers are responsible for updating and inputting data for the property check list during the off-season and taking monthly in-service training tests. Cape May City officials believe that although their dispatch operation may see benefits, the current operation functions in a seamless

manner as dispatchers are well schooled on how to handle house fires, medical conditions and other emergency responses as second nature.

The following is a chart of activities performed by Cape May City dispatchers:

Dispatcher Services and Tasks	Check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering	<u>X</u>
Provide EMD	<u>X</u>
Transfer to EMD Provider	
Police Dispatch	<u>X</u>
Fire Dispatch (tone or radio)	<u>X</u>
Medical Dispatch	<u>X</u>
Ambulance Call Out to surrounding Towns	<u>X</u>
Routine Public Safety Tasks	
Request assistance of Highway/DPW	<u>X</u>
Request mutual aid/special services	<u>X</u>
Request wrecker assistance	<u>X</u>
Request wildlife removal	<u>X</u>
Walk-in Requests for Medical Assistance	<u>X</u>
Monitor prisoners in holding cells and booking area	<u>X</u>
Assist in prisoner evacuation in case of emergency	
Process fingerprinting/fees	
NCIC lookups/Background checks	<u>X</u>
Enter warrants/restraining orders	
File Protective Orders	
Activate Knox Box keys for Fire Dept	
Non Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	<u>X</u>
After hours pick-up/drop off for money and possessions	<u>X</u>
Walk-in Requests for advice/information/complaints/directions/town functions	<u>X</u>
Walk-ins with lost/stray dogs	<u>X</u>
Safe Haven	<u>X</u>
Provide keys for elevator and building access	<u>X</u>
Maintain Parks and Recreation Permits	<u>X</u>
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	<u>X</u>
Assign officers to work vacancies	
Assignment of crossing guard posts	
Dispatcher Services and Tasks	Check all that apply
Provide paychecks to crossing guards	
Collect time cards	
Coordinate functions during special events	
POC for probation officers and meetings	
Electronically open/close sallyport doors and prison cells	<u>X</u>
Monitor/Receive incoming residential/commercial alarms	<u>X</u>

Table 9-3: Listing of Dispatch Service

9.4 Staffing

The Cape May City PSAP is authorized for 4 full time civilian call taker/dispatch staff. Dispatchers do not have an immediate supervisor but a Police Sergeant provides training and quality assurance review of incidents. Normally, one dispatcher is on duty however during emergency and high volume/seasonal conditions additional full time dispatchers are called in for response during peak volume events such as Fourth of July or major weather conditions.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	0
Operations Manager	0
Information Technology Coordinator	1-Patrol Sargent
Training/Quality Assurance	1-Captain
Administrative Assistant	0
Shift Supervisor	0
Call Taker/Dispatcher (FT)	3
Call Taker/Dispatcher (PT)	4
Shift Schedule:	12 hour shifts
Total	3 FT; 6 PT staff

Table 9-4: FTE Equivalents and Authorized Staff

The pay scale for the Communications Officer trainee begins at \$26,077 per contract. Once a dispatcher has achieved regular non-trainee status, the pay scale ranges from \$31,030 - \$34,145. Per contract, dispatchers will receive a 2%-10% longevity increase based upon years of service up to 25 years. Part-time dispatchers are paid on an hourly basis as \$15 per hour. Benefits are calculated at about % of salary and are based upon contract guidelines.

Cape May City dispatchers participate in the United Auto Workers Union Amalgamated Local 2327 AFL-CIO.

9.5 PSAP Capabilities

The Cape May City Communications Center has a two position console with a single dispatcher on per shift. The 18x12 dispatch center does not offer direct access to the public which limits the single dispatcher from being distracted. The Center is equipped with a new KML console, AT&T Merlin Key telephone and a series of monitors that provide access to NCIC lookups, warrant lookups, CAD for entry of 911 data and monitoring of

various cameras throughout Cape May City. The room is long and narrow with restroom facilities immediately behind the dispatch desk. A long handset cord is available in case it is needed in the restroom for call answering. A fire 'ring down' arrangement is in place so that dispatchers can talk through fire responses. This process though requires a double dispatch. A paging tone is also initiated when there is no one in the fire station.

Cape May dispatchers are also the primary answering and dispatch position for West Cape May callers.

Cape May City has battery backup and a building generator for external power. The County OEM Center is the back-up center for Cape May City.

Capabilities	County System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	Enforsys – CAD installed 1994
Mapping	None
E-911 Consoles and Equipment	New KML 911 Console
Radio Control Consoles and Equipment	Zetron Radio Console

Table 9-5: Equipment Capabilities

9.6 Radio Systems and Frequencies

Cape May City dispatch operates predominantly off of a VHF radio system using the following frequencies:

Description	Transmit	Receive
Cape May Police	155.7000 118.8	159.2100
Cape May Fire	155.8800 118.8	159.1050
Cape May Fire Talk Around	155.8800 118.8	155.8800
Cape May MG1-	153.8600 csq	153.8600
Cape May MG2-	153.9650 csq	153.9650
Cape May Count Fire1-	154.1300 118.8	154.1300
Cape May County Fire2-	154.1900 118.8	154.1900
Cape May County EMS-	155.2950 118.8	155.2950
US Coast Guard Fire-	171.2375 118.8	166.1875

Lower Township Fire 1	154.4000	118.8	153.770
Lower Township Police	155.4900	118.8	158.9700
Middle Township Police	154.8750	118.8	159.0150
Spennock 1-	154.6800	131.8	154.6800
Spennock 2-	155.4750	131.8	155.4750
Spennock 3-	154.7250	131.8	154.7250
Spennock 4-	153.7850	131.8	153.7850
Vicinity 10-	155.7525	156.7	155.7525
Vicinity 11-	151.1375	156.7	151.1375
Vicinity 12-	154.4525	156.7	154.4525
Vicinity 13-	158.7375	156.7	158.737
Vicinity 14-	159.4725	156.7	159.4725

Table 9-6: Radio Frequency Listing

Cape May City utilizes VHF frequencies on a Zetron radio consoles. Police and Fire frequencies have been narrowbanded. Repeaters are located at the public works water tower on Canning House Lane and a receiver is located at Marquis de Lafayette on Beach Street. The primary antenna address is at 643 Washington Street. The dispatcher has reported that there is limited to no reception at Cape May Point and at the North End.

9.7 Voice and Data Interoperability

As there is no formalized methodology to achieve County wide interoperability, each town and borough has taken it upon themselves to work within their limited budgets to develop individual interoperability solutions. Cape May City has achieved a degree of this through dispatch to dispatch communications with the other towns that they provide mutual aid to. While this provides some inter-communication, it can become overwhelming for the single dispatcher on duty to be the conduit for all communications during a multiple incident event.

Going forward, a county-wide strategy and philosophy will need to be created in order to achieve any level of inter-agency communications between and amongst towns along the Barrier Island and Mainland regardless of whether a regional dispatch communications center becomes a reality or not.

9.8 Data Communications

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system, or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Cape May City PSAP operates on Enforsys CAD which is used in almost all other PSAP's with the exception of Avalon. The Fire department utilizes the same system as well as Fire House and the data is shared for mutual aid purposes. The Dispatcher generates a separate incident for each call for service. The CAD system dumps a skeleton into the RMS system which then becomes available as part of a larger report in the RMS system. Individual events are recorded separately for police, fire and medical.

9.9 Training

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the course of the year. Telecommunicators are required to take an initial training protocol of 40 hours that certifies them for life. Emergency Medical Dispatch is a 32 hour course that requires recertification every other year. .

EMD flip cards and protocols are issued under the State Department of Health.

The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED) - Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch course are also offered. Dispatchers in Cape May City are all New Jersey State Certified Telecommunicators and are EMD trained. Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website; the City's Senior Dispatcher provides training to the other dispatchers and functions as provides dispatch quality assurance.

9.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with the Cape May City managers, police and fire chiefs and the City Mayor after which we observed operations within the PSAP. Through these various interactions specific thoughts regarding regionalization and its impact on local operations and residents was discussed. It was generally agreed that a County level dispatch function could be beneficial however, Police management did not recognize any benefits of regionalizing dispatch services however, there were concerns voiced regarding change and its impact on local residents and summer tourists.

Generally, Cape May City, Cape May Point and West Cape May operate on a mutual aid basis with one another as Cape May Point and West Cape May have more volunteer services than Cape May City. The apprehension is that as a summer resort community,

Cape May offers what they believe is a unique service delivery system that includes a significant beach and water rescue team as well as an after-hours beach patrol. These services are anticipated by dispatchers and the 'well-oiled machine' while stretched thinly operates seamlessly within the first responder community. While that may be the case, Police Chief and its Senior Managers identify management benefits to centralizing services that will ultimately and immediately free up their time to dedicate to police and first responder services.

Both Police and Fire Officials considered benefits to regionalizing dispatch to be:

- Standardized training
- Cross training of multiple dispatchers to handle calls
- An improved level of service through dedicated fire/medical dispatchers trained to address discipline related requirements
- Better coordination of resources
- Development of standard operating procedures
- Common records management systems for better inter-agency sharing of information

Police management believed the drawbacks to be:

- Lack of dispatcher familiarity with 'our' town.

Fire Officials believed the objections would focus on:

- There is no interest from local officials
- Perception that control of communications would not be in local hands
- Belief that residents don't want to change the status quo

Our team had the opportunity to meet with City Officials as well as Police and Fire Chiefs who voiced optimism regarding a regional dispatch effort citing that while previous studies had failed due to lack of interest as certain towns are not interested, this effort may be different as there appears to be a change in the political direction. Further, it may not require an 'all or nothing' approach.

Based upon the questionnaire responses it was believed that the most advantageous configuration for Police and Fire believed to be an existing town-based regional center with two or three town's maximum perhaps beginning as a partial consolidation. This would allow agencies that offer similar operations and have similar political, fiscal and demographic conditions to align themselves. The advantage would be to group dispatchers with local familiarity into similar functions to improve services and cross training While Police management are open to all configuration options as long as there are cost savings, the Fire services believes that a full consolidation within a single center with common management would be preferred.

Our general observation of the Cape May City PSAP is that the dispatch staff very confidently handles the complexities of their job however, dispatchers concerns regarding retirement and location will need to be vetted. These discussions will be required at the next level of detail once a concept that properly addresses the overall issues of centralized dispatch is prepared. Generally, dispatches enjoy the pace and interaction with local residents and tourists and believe there may be a less personal touch in a regional setting.

Governance and sustainability discussions with Cape May City and others involved in the study yielded an overall understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions.

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9.11 Photographic Journal



Figure 9-12: View of Dispatch Center



Figure 9-13: Alternate View of Dispatch Center

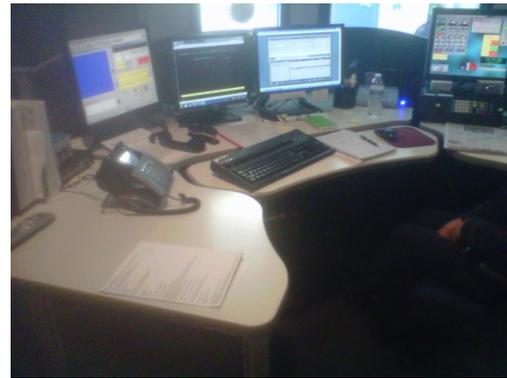


Figure 9-14: Alternate View of Dispatch

Cape May County, New Jersey Existing Conditions Assessment

App-B: 10.0 Lower Township PSAP

10.0 Lower Township PSAP

10.1 Lower Township PSAP Overview

The Lower Township PSAP and Communications Center provides call answering and first responder emergency dispatch services to all areas of Lower Township for police, fire, and medical assistance. Based on the 2010 census data, the Township has a population of approximately 22,866 full time residents, which is stable from the last census taken in 2000 (decreased by 79 residents, or -0.3%). According to the Township's website, it has the largest year-round population in Cape May County, with a slight increase in summer tourism population.

Lower Township was incorporated as one of New Jersey's initial 104 townships in 1798, initially formed as a whaling community. Today, it is the site of the Cape May Lighthouse, the Cape May County Airport, and the departure point for the Cape May-Lewes Ferry.

Diamond Beach, Erma, North Cape May, and Villas are unincorporated communities located within Lower Township. Other communities include Cold Spring, Fishing Creek, Schellenger's Landing, and Townbank. Lower Township adopted the Council-Manager form of government in 1984. The council is composed of five council members (Mayor, Council Member-at-Large, and three Wards).

Located at the southern tip of New Jersey on the Cape May County mainland, Lower Township is surrounded by the Delaware Bay, the Atlantic Ocean, and bordered by Middle Township, Wildwood City, Wildwood Crest, Cape May City, West Cape May, and Cape May Point. The Township is 31 square miles in size. Mile marker 0 of the Garden State Parkway begins in Lower Township and runs north through the Township. U.S. Route 9 passes through the township, as do Routes 109 and 162.

Lower Township is generally open to the concept of shared services when appropriately implemented. The Lower Township School District serves public school students in prekindergarten through sixth grade. For grades 7-12, public school students attend the schools of the Lower Cape May Regional School District, which serves students from Cape May City, Lower Township, West Cape May, and Cape May Point. The Police Department's School Resource Officer Program is a collaborative effort with the Lower Township Elementary School District and the Lower Cape May Regional School District. Lower Township Police participate in the Countywide SWAT Team.

Lower Township considered shared emergency communications with Middle Township in 2011, but the plan did not go forward when Lower Township realized its 911 equipment could be upgraded and decided to wait for the county-wide regional dispatch study prior to making any decisions. At the time, Lower and Middle townships held preliminary discussions to see if a joint dispatch center would be a cost-saving measure but they would move forward only if residents would continue to receive the same good service.

10.2 PSAP Call Processing

The Lower Township Police Department PSAP provides call answering and emergency dispatch support for township police, fire, and medical assistance to full time and summer residents. The Lower Township Police Department and PSAP is located at 405 Breakwater Road in Erma at the County Public Safety Building on the Cape May County Airport property. As of April 13, 2012, the Lower Township Police Department consisted of 35 sworn law enforcement officers. The Department utilizes Class 2 Special Law Enforcement Officers, with 11 currently on the roll (one is in school full-time and does not work during the off season). The 10 SLEOs work 20 hours during the off season and 40 hours during the summer season. Only one of the Class 2 SLEOs has been trained to work dispatch, although his time there is minimal.

The Telecommunication Operators provide services to one Law Enforcement agency, three volunteer Fire Departments (Villas, Town Bank, and Erma) and one EMS agency (Lower Township Rescue Squad). Each Fire Station is an independent District with its own taxing ability. Other supported agencies are Animal Control and Public Works.

Telecommunication Operators support all departments within the Police Department, including Patrol, Detective, Honor Guard, DARE program, and Crash Investigation Team.

Like the other Cape May County communities, Lower Township utilizes the County OEM Center as its back-up PSAP, which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center. In addition to emergency communications calls, the PSAP supports town-based calls, administrative calls and a variety of police department support services.

During 2011, the Lower Township Police Department handled 32,707 calls for service, a slight increase from the 31,664 calls for service in 2010.

Calls for Service	2010	2011	2012	Percentage Change
Total 9-1-1 calls Received*		10,117** 9,983*	10,120** 4,355*	0% (+3) -56% (-5,628)
Fire Calls (CAD Events)	446	591	591	0%
Medical Calls (CAD Events)	1,532	1,854	2,178	+17% (+324)
Other: Animal Complaints	358	280	N/A	N/A
Total Police dispatched incidents (CFS)	31,664	32,707	36,872	+13% (+4,165)

Table 10-15: Calls for Service and Call Volume

*Lower Township Police Department 2011 Annual Report: Operators answered a total of 9,983 emergency 911 calls for service in 2011 and 4,355 total 911 calls in 2012; those calls were answered in an average time of 4.56 seconds.

**State 911 data based upon the number of ALI dips

Based upon local CAD data as provided by the Police Department, 92% of the calls for service in 2012 required only a Police response. The remaining 8% of calls for service in 2012 are split between fire and medical response with 2% (591) requiring fire dispatch

and 6% (2,178) requiring a medical dispatch. The preceding year (2011) resulted in similar statistics for police calls for service resulting in 92% of the calls; fire responses were 2% of the total calls for service and medical responses were 6%.

Administrative call volume and ‘radio chatter’ data were not available for this report.

On average, Telecommunication Operators monitor seven radio units during a normal shift, including police and fire/EMS units and animal control.

The Lower Township PSAP has two dispatchers on duty at all times. Officers are rarely needed to augment the staffing configuration.

Lower Township has the fourth highest number of 911 calls (after Ocean City, Middle, and Wildwood City) of any of the PSAPs in Cape May County. Although Lower Township has fairly consistent call volume throughout the year, it is clear when Peak Season comes. Calls from Memorial Day through Labor Day and in Lower Township’s case through October are the busiest months as reflected in the number of ANI dips recorded by the State of New Jersey’s Office of Emergency Telecommunications.

Lower	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec		Total
2011	630	498	703	710	989	886	1,126	1,071	915	909	768	912		10,117
2012	704	624	717	796	927	987	1,016	1,119	983	888	676	683		10,120

Table 10-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by OETS, 40% of Lower Township’s 911 call volume occurs during the four month (May-August) peak seasonal period as compared to the average ANI dips throughout the other eight months of the year. The average monthly call volume during the four summer months is 1,012, versus an off-season average of 759 per month, a 33% increase in call volume.

The Center’s busiest days are Friday night and Saturday, with the busiest hour from 18:00-19:00. According to data provided by Lower Township Police, the PSAP receives 5-10 calls during a normal hour and from 20-25 calls during a busy hour. The average time to process a 911 call (from pickup to dispatch) is 30 seconds. The average time to process a call from call answer to dispatch is estimated to be 6-7 minutes. The average time on incidents from time of dispatch to time to clear the scene ranges from 30-45 minutes for a police-only response, 2 hours for a fire incident, and 1 hour for an EMS incident.

10.3 Dispatch Operations

The Lower Township Communications Center performs a diverse set of tasks in support of law enforcement, fire and E911 emergency communications services in addition to a host of public service and public safety support tasks most of which focus on information and reception type functions.

The primary role of Lower Township telecommunicators is to provide police, fire and first aid agencies with emergency call answering and dispatch. Depending on the location and

the nature of the call, the Telecommunication Operators determine what assistance is needed, who to send, and then dispatch services accordingly. They retrieve the address, name, phone number and details relating to the call to dispatch to field units. During the fact finding and call interrogation, the telecommunicator is entering the information into the CAD system. All Lower Township Telecommunication Operators are trained to provide EMD. Police are dispatched to all criminal complaints and calls for assistance, fire are dispatched per standard operating procedures with a police officer also dispatched, and medical calls are dispatched for first aid and may have a police officer dispatched, depending on the nature of the call. The PSAP also provides support to other town agencies, including Animal Control and Department of Public Works.

Mutual aid and assistance calls are considered like any other call for service. Lower Township provides mutual aid to Middle Township, other surrounding towns, and the Delaware River Bridge Authority (DRBA) at the Airport and Cape May-Lewes Ferry. DRBA has its own police department at the Ferry, but a 911 call placed from the Ferry is answered by Lower Township, who then dispatch Township Police to respond and work with the DRBA police. Similarly, water rescues are dispatched to the Coast Guard as well as township Fire/Rescue who also get involved.

Telecommunicators are responsible for answering three E911 trunks and 13 police administrative phone lines in addition to monitoring and responding to first responders and other agencies on 11 radio frequencies. Fire ground is not monitored once the fire apparatus is dispatched and fire command established on scene. E911 calls are given first priority followed by administrative lines, which are answered and transferred to the appropriate person or agency. A single radio position monitors and acknowledges seven units on a normal day. If multiple calls come in simultaneously and cannot be handled by the two operators on duty, they will place non-emergency phone calls on hold, prioritize the calls, and deal with the highest priority call first. There are three administrative fire department lines which are answered by each Fire Department or voicemail at the Fire Stations.

Lower Township's three-position PSAP functions as a 'call hub' and administrative support center which is believed to detract from the fire/medical emergency services and responsiveness of dispatchers. The Townbank Fire Chief who participated in the interviews indicated that although fire support has improved over the years, fire personnel on scene need more dedicated support throughout the incident. He believes this is primarily due to a lack of personnel and the fact that the telecommunicators are police dispatchers, rather than dedicated fire dispatchers. When a fire incident is in progress, first responders want to have a dispatcher dedicated to handling the multiple service requirements associated with a fire event, most often processing individual service requests to utilities (electric, gas and other) and monitoring the incident command/fire ground channels, which has a significant impact on the confidence of the firefighting team as they are unsure of the level of service they will receive once they are dispatched.

Telecommunication Operators provide a number of routine public safety and non-emergency support services as well as public, township-based services. These activities include but are not limited to answering and responding to the Senior Call-In Program, municipal and police ‘switchboard’ for call transfers, safe haven, after-hours call answering for Animal Control and Public Works, and lobby walk-in traffic. Although the Lower Township Police Department and PSAP are located currently at the Airport and away from the center of town, the Department plans to move within two years to a new facility at the Municipal Complex on Bayshore Road in Villas, so the Department will be back in the center of town to better support the community, including telecommunicators’ ability to receive and respond to walk-in traffic. The Police Chief indicates it is not uncommon to see walk-ins in the Town Hall area at 2:00 a.m.

Prisoner monitoring is another telecommunicator activity. This includes monitoring of detention activities via the internal camera system. There is always a sworn officer in the building; the telecommunicator is never there alone.

Telecommunication Operators also play a significant role in supporting and assisting Police Operations and the Records Department. They run abstracts, duplicate NCIC records, generate CAD reports, record fingerprints and fire arms IDs, monitor CJIS for State and Federal application notifications, and maintain files for the Records Department.

These and other activities dispatchers participate in can be found in the following Table.

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Dispatcher Services and Tasks	Please check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering	<u>X</u>
Provide EMD	<u>X</u>
Transfer to EMD Provider	
Police Dispatch	<u>X</u>
Fire Dispatch (tone or radio)	<u>X</u>
Medical Dispatch	<u>X</u>
Ambulance Call Out to surrounding Towns	<u>X</u>
Routine Public Safety Tasks	
Request assistance of Highway/DPW	<u>X</u>
Request mutual aid/special services	<u>X</u>
Request wrecker assistance	<u>X</u>
Request wildlife removal	<u>X</u>
Walk-in Requests for Medical Assistance	<u>X</u>
Monitor prisoners in holding cells and booking area	<u>X</u>
Assist in prisoner evacuation in case of emergency	<u>X</u>
Process fingerprinting/fees	
NCIC lookups/Background checks	<u>X</u>
Enter warrants/restraining orders	
File Protective Orders	<u>X</u>
Activate Knox Box keys for Fire Dept	
Non Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	<u>X</u>
After hours pick-up/drop off for money and possessions	
Walk-in Requests for information/complaints/directions/town functions	<u>X</u>
Walk-ins with lost/stray dogs	<u>X</u>
Safe Haven	<u>X</u>
Provide keys for elevator and building access	
Maintain Parks and Recreation Permits	
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	
Assign officers to work vacancies	
Assignment of crossing guard posts	
Dispatcher Services and Tasks	
Provide paychecks to crossing guards	
Collect time cards	
Coordinate functions during special events	
POC for probation officers and meetings	
Electronically open/close sallyport doors and prison cells	<u>X</u>
Monitor/Receive incoming residential/commercial alarms	<u>X</u>
Other: Support and Assist Police Records Department	
Run Abstracts	<u>X</u>
Duplicate NCIC Records	<u>X</u>
Generate reports via CAD – fingerprints – firearms ID	<u>X</u>
Monitor CJIS for paperwork, state and federal notifications, print out; maintain files for CJIS, filing, NJ Learn Training	<u>X</u>

Table 10-3: Listing of Dispatch Services

INTERTECH ASSOCIATES TECHNOLOGY & SECURITY CONSULTANTS AND ENGINEERS

January 20, 2014

10.4 Staffing

Lower Township does not have significant turnover in its telecommunicator personnel. The Lower Township PSAP is authorized for 8 full time civilian call taker/dispatch staff and 9 part-time staff. The Center is currently staffed with 8 full time Telecommunication Operators, with two assigned to each of the four patrol squads with a rotating schedule. This encourages the Telecommunication Operators to develop professional relationships with the first responders they interact with. All eight full-time staff are trained in EMD, CPR, and 911. The department also employs 9 part-time Telecommunication Operators. At least two operators are on duty in the communications center at all times. Emergency response staffing (for example, during a storm even) would have one additional operator on duty. Several Police Department members are trained to fill in as needed, which happens only occasionally (estimated at less than 5% of a sworn officer's time).

Managing the staffing function from a police perspective is considered to be difficult at times. A Police Lieutenant is responsible for managing the Telecommunication Operators and the administrative functions of scheduling, human resources, and quality assurance, which he indicates takes up 40-50% of his time. There is no dedicated position for training and quality assurance review of incidents, which is provided by the Lieutenant.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	Police Lieutenant
Operations Manager	0
Information Technology Coordinator	0
Training/Quality Assurance	Police Lieutenant
Administrative Assistant	0
Shift Supervisor	0
Call Taker/Dispatcher (FT)	8
Call Taker/Dispatcher (PT)	9
Shift Schedule:	12 hour staggered shifts 6:30am-6:30pm; 6:30pm-6:30am 7:00am-7:00pm; 7:00pm-7:00am
Total	8 FT; 9 PT

Table 10-4: FTE Equivalents and Authorized Staff

According to Lower Township data, the current range for PS Telecommunications Operator is \$40,902-\$49,640. Part-time dispatchers are paid on an hourly basis ranging from \$19.66-\$23.87 per hour. Benefits are approximately 40% of salary and are based upon the Office Workers Associates - AFSCME Union contractual guidelines. Telecommunication Operators recently agreed to a new contract in 2013 (not yet available) to replace the contract that expired in 2010. Per the 2010 contract, they

receive 14 holidays, 12-25 vacation days based on longevity, 15 sick days, and 4 personal days per year.

10.5 PSAP Capabilities

The Lower Township Communications Center is 40x27 feet with three console positions, all of which are functional. As previously indicated, the Police Department plans on relocating within the next year and a half to a new facility near the Lower Township Municipal Complex.

Lower Township has a building generator. The County OEM Center is the back-up center for any overflow condition or outage.

Capabilities	Lower Township System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	CAD: Enforsys SE RMS: Enforsys SE
Mapping	No formal system. Through GIS addresses, zoning, cross streets
E-911 Consoles and Equipment	Verizon/KML (nine-years old)
Radio Control Consoles and Equipment	Zetron
Recording System	

Table 10-5: Equipment Capabilities

10.6 Radio Systems and Frequencies

The Township operates on VHF frequencies (154/155), which have been narrowbanded. The main base station/transmitter is at the Police Department, with repeaters at the Villas Fire Department and the Shunpike Road tower. The radio system supports 80 portables (not including DPW or OEM) and approximately 30 mobile units. The system has some coverage issues, even affecting fire tones. Fire tones are not putting out enough wattage, and in-building communication is poor.

Lower Township Police have a Kenwood base repeater. Police recently added the repeater at the Shunpike Road tower to address coverage issues with portable radios that were not getting back to the main tower. Fire has a fairly new Motorola radio system. They were having issues after narrowbanding the system, which were resolved with an additional Fire repeater added at Shunpike Road. Fire is also considering a new repeater at Diamond Beach to improvement coverage.

The following channels are in operation in Lower Township, according to RadioReference.com:

Frequency	Input	License	Type	Tone	Alpha Tag	Description	Mode	Tag
155.4900	158.9700	KBH341	RM	118.8 PL	Lower PD 1	Police Dispatch	FM	Law Dispatch
154.8000	156.0300	KBH341	RM	141.3 PL	Lower PD 2	Police	FM	Law Talk
154.4000	153.7700	WPBX462	RM	118.8 PL	Lower Fire 1	Fire Dispatch/ Operations (Local)	FM	Fire Dispatch
154.2650		KBK292	BM	118.8 PL	Lower Fire 2	Fireground 2	FM	Fire-Tac
154.2950		KBK292	M	118.8 PL	Lower Fire 3	Fireground 3	FM	Fire-Tac
154.3700		WPAV855	BM	118.8 PL	Lower Fire 4	Fireground 4	FM	Fire-Tac
154.0550	156.0000	WPAD534	RM	173.8 PL	Lower Rescue	Rescue Dispatch	FM	EMS-Talk
151.1000	156.0450	WPBH208	RM	173.8 PL	Lower San	Sanitation/ Public Works	FM	Public Works
155.8200		KYU937	BM	118.8 PL	Lower PW	Public Works	FM	Public Works
152.2850	157.5450	WPXX947	RM	114.8 PL	Lower BOE	Elementary Schools/BOE	FM	Schools
155.9250		KHY547	BM	100.0 PL	Lower Util.	Municipal Utilities Auth.	FM	Utilities

Table 10-6: Radio Frequency Listing

10.7 Voice and Data Interoperability

There is no regional voice and data interoperability between Lower Township first responders and other disciplines within the County although the county does use a county-wide channel to communicate on dispatch-to-dispatch and dispatch-to-car.

10.8 Data Communications

MDTs are installed in all police, fire, and EMS vehicles, connected with Verizon high speed modems and used for report preparation.

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Lower Township operates on Enforsys SE CAD/RMS; Enforsys is used by most PSAPs in the County. A critical requirement stated by Lower Township is the need to retain local access to CAD data for reports and incident management.

For the communities that utilize the Enforsys system, inter-jurisdictional record sharing and reporting could be achieved. However, going forward establishing an integrated CAD/RMS and mapping data tool for inter-jurisdictional and inter-discipline records management and resource mapping will require a regional needs assessment by agency

and discipline to best establish the feature functionality and level of service to support each discipline in a regional setting.

10.9 Training

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the year. Telecommunicators are required to recertify every other year. The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED), Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch courses are also offered.

Telecommunication Operators in Lower Township are all New Jersey State Certified Telecommunicators and EMD trained. Every year or two telecommunicators must be recertified, which includes Emergency Medical Direction. EMD flip cards and protocols are issued under the State Department of Health. Larger communities like Lower Township may require a greater degree of continuous medical direction to callers than the geographically smaller towns on the Barrier Island, due to the time it takes to travel across the Township.

Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

10.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and spent time with Lower Township Police Chief Brian Marker, Lieutenant Martin Biersbach, Townbank Fire Chief Lew Megoigal, Township Administrator Mike Voll, and observed two telecommunicators on duty in the PSAP. Through these various interactions, specific thoughts were discussed regarding regionalization and its impact on local operations and residents.

Police management primarily expressed concerns about regionalizing dispatch services, especially over perceived loss of service that may occur. Police Chief Brian Marker expressed his support of shared services, but also expressed reservations of regionalized emergency communications and concerns about any impact on customer services currently provided by the Lower Township telecommunicators. Police management did see benefits to Fire and EMS service delivery that could occur in a regionalized environment.

Police and Fire officials considered benefits to regionalizing dispatch to be:

- Standardized training
- Cross training of multiple dispatchers to handle calls
- Development of standard operating procedures
- Better coordination of resources
- Potential cost savings

- Shared maintenance of equipment
- Development of a state-of-the-art facility
- Common records management, so communities could share information more readily
- Acknowledgement that fire dispatching could be better served through a dedicated regional fire dispatch center

The corresponding drawbacks were noted as:

- Lack of dispatcher familiarity with ‘our’ town
- Perception that control of communications would not be in local hands
- Belief that residents don’t want to change the status quo
- Concern that level of services provided to residents may decrease
- Criticality of CAD system, immediate access to CAD data for reporting, and how different community-based policies and procedures would work in a consolidated environment

During the on-site interviews, regionalized services were candidly discussed to try to ascertain the type of regional setting that could be envisioned for Lower Township. It was expressed that a single site with a common management structure would be preferred, with an Advisory Board comprised of police and fire representatives who would have the flexibility to address the issues and challenges of regional dispatch for Cape May County. This Board would be responsible for setting universal policies/procedures and obtain the necessary agreement to implement them, provide input into how the regional center would be built and operated, and set standards for human resources, training, service delivery, and disciplinary procedures. The Police Administration believe a single County-wide model would be the best alternative but also sees the merit of fire dispatch separate from law enforcement dispatch.

Alternatively, the most advantageous configuration for Police to consider participating might be an existing town-based regional center with two or three towns beginning as a partial consolidation. This would allow agencies that offer similar operations and have similar political, fiscal and demographic conditions to align themselves.

The Chief and Lieutenant believe that the public safety building at the Airport, though in need of extensive renovations, would be an appropriate location to consider for a regional countywide communications center. The Airport location is the County’s staging area during storm events; the Chief mentioned that during last year’s Hurricane Sandy, the shore towns brought their emergency vehicles and equipment to the Lower Township public safety building to keep it safely off the island. Although the County owns the building and the property, it is leased to the DRBA, who operates the airport.

The Fire service only saw an upside in regionalized emergency communications for reasons stated throughout this assessment. The Fire Chiefs meet monthly and have been talking for years about county-wide centralized dispatch with a dedicated dispatcher to support fire responders throughout an incident. Their biggest concern would be funding. Fire service believes that a single center with common management would be preferable using separate police and fire dispatch staff to perform the unique functions each discipline requires.

Our general observation of the Lower Township PSAP is that in its particular case, regionalized services will have a positive impact on the process of policing within the community so that already scarce resources can be re-allocated to the task of policing without the responsibility of managing a communications center.

Governance and sustainability discussions with Lower Township and others involved in the study yielded an overall understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions.

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10.11 Photographic Journal



Figure 10-1:
Web Image – Lower Township PSAP Exterior



Figure 10-3:
Lower Township PSAP – 2 positions

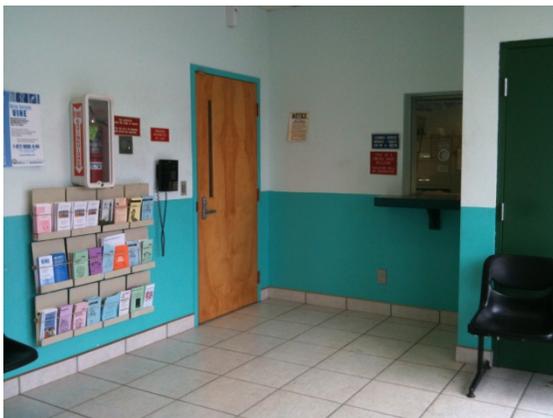


Figure 10-15:
Lobby Area – Lower Township Police Building



Figure 10-4:
Lower Township Telecommunicator Position

Cape May County, New Jersey Existing Conditions Assessment

App-B: 11.0 Middle Township PSAP

11.0 Middle Township PSAP

11.1 Middle Township PSAP Overview

The Middle Township PSAP and Communications Center provides call answering and first responder emergency dispatch services to all areas of Middle Township for police, fire and medical assistance. Based on the 2010 census data the Township has a population of approximately 18,911 full time residents, which is a 2,506 increase (+15.3%) from the last census taken in 2000. According to data from the Township, its summer population increases to approximately 75,000; the Township is also affected by increased traffic and related accidents as tourists travel through the Township on their way to shore areas.

Burleigh, Cape May Court House, Rio Grande, Whitesboro and Green Creek are unincorporated communities located within Middle Township. Villages include Del Haven, Swanton, Hildreth, and the hamlet of Goshen. Cape May Court House is the county seat. Middle Township is governed under the Township form of government with a three-member Township Committee.

Middle Township is located on the Cape May County mainland, surrounded by the Delaware Bay to the West, Lower Township to the South, Avalon, Stone Harbor and the Wildwoods to the East and Dennis Township to the North. The Township is 83 square miles in size. The Garden State Parkway, State Highways, 83, 47, and 147 and County Routes 657, 619 and a number of local roads pass through the Township. Cape Regional Medical Center, known as Burdette Tomlin Memorial Hospital until April 2007, is located in Cape May Court House and is the only hospital in Cape May County.

Middle Township is generally open to the concept of shared services when appropriately implemented. Middle Township has shared services agreements in place with neighboring communities, including for Animal Control Services. The Middle Township Public Schools have shared services and interlocal agreements in place with neighboring communities that include providing Child Study Team services, student transportation, bus maintenance, Food Manager Services, and joint purchasing alliances. Middle Township has an interlocal agreement with the Cape May County Technical High School for sharing the School Resource Officer.

Middle and Lower Townships considered shared emergency communication services in 2011 when Lower Township needed to upgrade its 911 equipment, but the plan did not go forward when Lower Township realized its equipment could be upgraded and decided to wait for the county-wide regional dispatch study prior to making any decisions. At one point the Middle Township PSAP was a regional center, providing services to Upper, Woodbine, and Dennis, but it fell apart when Fire Companies felt they weren't getting the individualized service they needed.

Middle Township Police Chief Christopher Leusner expressed his support of the concept of shared services, including emergency communications, if planned and implemented

appropriately. He was actively involved in the formation of the County-wide Regional SWAT team several years ago, which is divided into two geographical regions: Mainland and Island divisions. Chief Leusner serves on the Regional SWAT Steering Committee, which discusses and proposes policies that are then voted on by the County Police Chiefs Association. As another example, a county regional Hostage Negotiations team was formed in 2009, with Middle Township's existing Police Hostage Negotiations team acting as a foundation for the northern end of Cape May County.

11.2 PSAP Call Processing

Middle Township Police Department is the town's primary PSAP providing call answering and emergency dispatch support for police, fire, and medical assistance to its full time and summer residents. The Middle Township Police Department and PSAP is located at 31 Mechanic Street in Cape May Court House, directly across the street from the County OEM Center's PSAP. As of January 1, 2013, the Middle Township Police Department consisted of 44 sworn law enforcement officers, 5 Class II and 1 Class I Special Law Enforcement Officers, 9 full time and 3 part time Telecommunications Operators, an evidence clerk, and 5 secretaries.

Telecommunications Operators provide services to one law enforcement agency, four fire departments (Green Creek, Rio Grande, Goshen, and Court House) and two EMS agencies (Court House Rescue and Rio Grande Rescue). Other supported agencies are Animal Control and Public Works. Telecommunications Operators support all departments within the Police Department, including the DIVE team, Motorcycle Unit, Honor Guard, DARE program, Hostage Negotiation Team, Crash Investigation Team, and bicycle unit.

Like the other Cape May County communities, Middle Township utilizes the County OEM Center as its back-up PSAP, which offers one-touch transfer back to the town when overflow 911 calls reach the OEM center. In addition to emergency communications calls, the communications center supports town-based calls, administrative calls and a variety of police department support services.

During 2012, the Middle Township Police Department handled 38,309 calls for service, a slight decrease from the 40,546 calls for service in 2011.

Calls for Service	2011	2012	Percentage Change
Total 9-1-1 calls Received	* 14,350 (1/1-12/31) ** 13,702 State	* 2,681 (9/27-12/31) ** 12,901 State	*See below
Fire Calls (CAD Events)	707	728	+3% (+21)
Medical Calls (CAD Events)	3253	3326	+2% (+73)
Total Police dispatched incidents (CFS)	40,546	38,309	-6% (-2237)

Table 11-16: Calls for Service and Call Volume

* Data from Middle Township CAD. During 2012 the 911 computers were replaced and upgraded. As a result the data from 1/1/2012-12/31/2012 was unable to be retrieved. The 2012 data from Middle Township is from 9/27/2012 through 12/31/2012.

**State 911 data based upon the number of ALI dips

Based upon local CAD data in the Police Department 2011 and 2012 Annual Reports, 89% of the calls for service in 2011 and 2012 required only a Police response. The remaining 11% of calls for service in 2012 are split between fire and medical response with 2% (728) requiring fire dispatch and 9% (3326) requiring a medical dispatch. The preceding two years (2010, 2011) resulted in similar statistics for police calls for service resulting in 89% of the calls; fire responses again was 2% of the total calls for service and medical responses was 9%.

Administrative call volume and ‘radio chatter’ data were not available for this report.

On average, dispatchers may monitor anywhere between 5 and 10 police units during a normal shift. There is no difference between winter and summer units. Dispatchers are also responsible for monitoring 4 Fire/ 2 EMS units and 1 animal control unit. Additional Fire/EMS units could be monitored during a mutual aid incident.

The Middle Township PSAP has two dispatchers on duty at all times. Officers are rarely needed to augment the staffing configuration, since the PSAP is staffed with a ninth “floater” person who is available to fill in during absences of regular staff.

Middle Township has the second highest number of 911 calls (after Ocean City) of any of the PSAPs in Cape May County. Although Middle Township has fairly consistent call volume throughout the year, it is clear when Peak Season comes, which Police Administration attributes largely to a spike in traffic accidents. Calls from Memorial Day through Labor Day and in Middle Township’s case through October are the busiest months as reflected in the number of ANI dips recorded by the State of New Jersey’s Office of Emergency Telecommunications.

Middle	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2011	857	848	963	906	1251	1424	1725	1609	1147	1087	962	923	13,702
2012	867	759	980	912	1205	1270	1191	1529	1115	1089	961	1023	12901

Table 11-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by OETS, 40% of Middle Township’s 911 call volume occurs during the four month (May-August) peak seasonal period as compared to the average ANI dips throughout the other eight months of the year. The average monthly call volume during the four summer months is 1298, versus an off-season average of 963 per month, a 35% increase in call volume.

The Center’s busiest days are Friday and Monday and busiest hours are 11:00 and 20:00. Middle Township Police does not have call processing statistics available, but estimates an average of 2-3 seconds to answer a 911 call.

11.3 Dispatch Operations:

Middle Township’s three-position center functions as a ‘call hub’ for E-911 and non-emergency calls. The Middle Township Communications Center performs specific tasks in support of Law Enforcement, Fire and E911 emergency communications services and a

small number of non-emergency dispatch tasks. Telecommunication Operators efforts are focused mainly on emergency call answering and routine public safety support services such as call outs for mutual aid, Animal Control, and background/NCIC lookups.

The Middle Township Police Department Communications Center is staffed 24 hours a day, seven days a week, by full time Public Safety Telecommunication Operators. They are the initial point of contact for a majority of the public requiring police services.

Middle Township telecommunicators receive and respond to telephone requests for emergency services, provide First Aid or CPR instructions until the arrival of medical assistance, utilize radio, telephone, or other electronic equipment to dispatch law enforcement, fire department or medical units, refer non-emergency situations to the appropriate public or private agencies, and enter data into the Police Department's computer system as well as other databases such as NCIC and SCIC. When transfer to an EMD provider is required, telecommunicators will contact Medcom to request Medics or a Medevac helicopter.

Telecommunicators also provide a number of routine public safety and non-emergency support services. These activities include but are not limited to municipal and police 'switchboard' for administrative call answering and call transfers, animal control calls, lobby walk-in services, providing access to the building and elevator, monitoring court-ordered custody exchange, and vehicle towing, to name a few. Two prisoner cells are monitored by cameras, and telecommunicators monitor the video feed from the communications center. Although they monitor detainees remotely via camera, it is not their primary responsibility and it is believed that a Regional Dispatch Center could just as well handle that function.

Another significant responsibility is monitoring an extensive network of cameras located strategically throughout the Township in higher risk locations such as housing projects and schools. According to the Police Chief, this is an area of critical importance that must be maintained. Although there was no specific concern expressed for a 'dark station,' it was mentioned that the dispatcher is sometimes the only person in the police building during the midnight shift. However, the opinion was expressed that technology would allow a remotely located dispatcher to press a button to speak with anyone at the police building after hours and immediately dispatch a patrol officer for assistance.

Dispatchers are responsible for answering three E911 trunks and five VOIP administrative phone lines in addition to monitoring and responding to first responders on up to five radio frequencies. The telecommunicators dispatch fire to an incident but do not actively monitor fire ground channels during the event. E911 calls are given first priority followed by administrative lines. Radio traffic is monitored and acknowledged during calls also. If multiple calls come in simultaneously, the telecommunicator will place non-emergency phone calls on hold, prioritize the calls and deal with the highest priority call first.

There are four fire companies, each with its own administrative telephone line, which are answered by police dispatch as there is no one at the station to answer calls.

These and other activities dispatchers participate in can be found in the following Table.

Dispatcher Services and Tasks	Please check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering	<input checked="" type="checkbox"/>
Provide EMD	<input checked="" type="checkbox"/>
Transfer to EMD Provider	<input checked="" type="checkbox"/>
Police Dispatch	<input checked="" type="checkbox"/>
Fire Dispatch (tone or radio)	<input checked="" type="checkbox"/>
Medical Dispatch	<input checked="" type="checkbox"/>
Ambulance Call Out to surrounding Towns	<input checked="" type="checkbox"/>
Routine Public Safety Tasks	
Request assistance of Highway/DPW	<input checked="" type="checkbox"/>
Request mutual aid/special services	<input checked="" type="checkbox"/>
Request wrecker assistance	<input checked="" type="checkbox"/>
Request wildlife removal	<input checked="" type="checkbox"/>
Walk-in Requests for Medical Assistance	<input checked="" type="checkbox"/>
Monitor prisoners in holding cells and booking area	<input checked="" type="checkbox"/>
Assist in prisoner evacuation in case of emergency	
Process fingerprinting/fees	
NCIC lookups/Background checks	<input checked="" type="checkbox"/>
Enter warrants/restraining orders	<input checked="" type="checkbox"/>
File Protective Orders	<input checked="" type="checkbox"/>
Activate Knox Box keys for Fire Dept	
Non Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	<input checked="" type="checkbox"/>
After hours pick-up/drop off for money and possessions	
Walk-in Requests for information/complaints/directions/town functions	<input checked="" type="checkbox"/>
Walk-ins with lost/stray dogs	
Safe Haven	<input checked="" type="checkbox"/>
Provide keys for elevator and building access	<input checked="" type="checkbox"/>
Maintain Parks and Recreation Permits	
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	<input checked="" type="checkbox"/>
Assign officers to work vacancies	
Assignment of crossing guard posts	
Dispatcher Services and Tasks	
Provide paychecks to crossing guards	
Collect time cards	
Coordinate functions during special events	
POC for probation officers and meetings	
Electronically open/close sallyport doors and prison cells	<input checked="" type="checkbox"/>
Monitor/Receive incoming residential/commercial alarms	<input checked="" type="checkbox"/>
Other Dispatcher Tasks	
Monitor surveillance cameras around the community	<input checked="" type="checkbox"/>

Table 11-3: Listing of Dispatch Services

INTERTECH ASSOCIATES TECHNOLOGY & SECURITY CONSULTANTS AND ENGINEERS

January 20, 2014

11.4 Staffing

Middle Township does not have much turnover in its dispatch personnel. The Middle Township PSAP is authorized for 9 full time civilian call taker/dispatch staff and 3 part-time staff. The Center is currently staffed with nine full time Telecommunication Operators, with two assigned to each of the four patrol squads with a rotating schedule. This encourages the Telecommunication Operators to develop professional relationships with the first responders they interact with. The ninth operator is a “floater” who is used to cover vacations, training, and illness, thus keeping overtime to a minimum. All nine full-time staff are trained EMD dispatchers. The department also employs three part-time telecommunication operators. It is mandatory that there are at least two operators on duty in the dispatch center at all times. Emergency response staffing (for example, during a large storm) would have four dispatchers on duty, with three in the dispatch center and one in the Police Department’s emergency operations center. Several Police Department members are trained to fill in as needed, which happens only occasionally (estimated at 1% of a sworn officer’s time).

Managing the staffing function from a police perspective is considered to be difficult at times. Telecommunicators are assigned to a squad, with the squad sergeant serving as their immediate supervisor. Two telecommunication operators are scheduled on each shift, with one designated as senior dispatch. A Police Lieutenant is responsible for the administrative function of scheduling, human resources, etc. There is no dedicated position for training and quality assurance review of incidents, which is provided by the Lieutenant.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
Director	0
Operations Manager	0
Information Technology Coordinator	0
Training/Quality Assurance	0
Administrative Assistant	0
Shift Supervisor	0
Call Taker/Dispatcher (FT)	9
Call Taker/Dispatcher (PT)	3
Shift Schedule:	12 hour shifts 7A-7P; 7P-7A
Total	9 FT; 3 PT

Table 11-4: FTE Equivalents and Authorized Staff

According to Middle Township ordinance (December 2012), the pay scale range for PS Telecommunications Operator is \$18,720-\$53,000. According to Police data, the current top dispatch position receives \$49,990 with a median salary of \$36,690. Part-time dispatchers are paid on an hourly basis of \$13.46 per hour (within a range of \$6.50 to \$15.00 per hour, according to the Township ordinance). Benefits are calculated at about 43% of salary and are based upon the 2009 Union contractual guidelines.

Telecommunication Operators are currently negotiating a new contract. Per the current contract, they receive 15 holidays and approximately 13 to 20 days of vacation per year.

11.5 PSAP Capabilities

In November of 2010 the Middle Township Communications Center was completely renovated and upgraded at a cost estimated by the Police Chief to be between \$100,000-\$130,000. All computers and servers were moved to a separate room and every line and connection was tagged for future reference. All walls, counters, flooring, ceiling, and lighting were replaced. The work was done in-house by the Township.

The Middle Township Communications Center is 20x12 feet with three console positions, all of which are functional. Police data indicate the positions have two- year old E911 consoles that are Phase II capable, and the 911 computers were updated in September 2012.

Cameras are located throughout the Township, which video displayed on large screens located in the communications center for telecommunications operators to monitor.

Middle Township has a building generator. The County OEM Center is the back-up center for any overflow condition or outage.

Capabilities	Middle Township System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	CAD: Enforsys Blue RMS: Enforsys Blue
Mapping	Trakstar (3-year old system)
E-911 Consoles and Equipment	KML
Radio Control Consoles and Equipment	Zetron
Recording System	Eventide (3-year old system)

Table 11-5: Equipment Capabilities

11.6 Radio Systems and Frequencies

Middle Township spent \$1.3 million on radios in 2003, with a mix of Harris and MA/COM infrastructure and new microwave links from antennas back to headquarters. The Township operates on VHF frequencies, which have been narrowbanded, with one transmitter and three receiver sites. The radio system supports 50 portables and approximately 37 mobile units. There are several areas in the southern end of the Township that have poor coverage, especially in buildings.

The following channels are in operation in Middle Township, according to RadioReference.com:

Frequency	Input	License	Type	Tone	Alpha Tag	Description	Mode	Tag
156.0150*						Police		
154.8750	159.0150	KE0252	RM	118.8 PL	Middle PD 1	Police Dispatch	FMN	Law Dispatch
151.3850	159.1950	KEO252	RM	118.8 PL	Middle PD 2	Police Tactical	FMN	Law Talk
155.2950		KNCD839	BM	118.8 PL	Middle EMS	EMS/Rescue Operations	FM	EMS-Talk
155.0550	158.9950	WPCP900	RM	173.8 PL	Middle FD 3	Fire 3	FM	Fire-Tac
154.1600		WNXN626	BM	118.8 PL	Middle FD 4	Fire 4	FM	Fire-Talk

Table 11-6: Radio Frequency Listing

* Police transmit at 156.0150 and receive at 151.3850, per Middle Township Police data.

11.7 Voice and Data Interoperability

There is no regional voice and data interoperability between Middle Township first responders and other disciplines within the County although the county does use a county-wide channel to communicate on dispatch-to-dispatch and dispatch-to-car.

As a future option for county-wide interoperability, Middle Township Police Department would consider moving to the New Jersey State Police 700 MHz radio system, paying an annual fee for the service.

Voice interoperability could exist more than it does as most towns in Cape May County are UHF with the exception of Middle Township and some fire agencies.

11.8 Data Communications

All police officers have MDTs installed in their cars, connected with Verizon high speed modems and used for report preparation utilizing InfoCop software.

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Middle Township operates on Enforsys Blue CAD/RMS, bought two years ago; Enforsys is used by most PSAPs in the County. There is a separate mapping system for GPS Trakstar. Real-time, immediate access to CAD data is critical. Middle Township Police are analyzing data on a daily and weekly basis and adjusting operations based on that analysis. The Department uses DDACTS, Data Driven Approach to Crime and Traffic Safety, as a data driven approach to police operations, which the Chief believes is the way of the future. It is critical for the Police Department to have easy, immediate access to its CAD data for analysis to help them work smarter and more efficiently.

For the communities that utilize the Enforsys system, inter-jurisdictional record sharing and reporting could be achieved. However, going forward establishing an integrated CAD/RMS and mapping data tool for inter-jurisdictional and inter-discipline records management and resource mapping will require a regional needs assessment by agency and discipline to best establish the feature functionality and level of service to support each discipline in a regional setting.

11.9 Training

All of Middle Township's Public Safety Telecommunication Operators are required to receive and maintain certification by the Office of Emergency Telecommunications Services in the Department of Law and Public Safety. The Middle Township Police Department is accredited through the New Jersey Law Enforcement Accreditation Program, modeled after the CALEA national program.

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the course of the year. Telecommunicators are required to recertify every other year. The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED), Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch courses are also offered. Telecommunication operators in Middle Township are all New Jersey State Certified Telecommunicators and are EMD trained.

Every year or two telecommunicators must be recertified, which includes Emergency Medical Direction. EMD flip cards and protocols are issued under the State Department of Health. Larger communities like Middle Township may require a greater degree of continuous medical direction to callers than the geographically smaller towns on the Barrier Island, due to the time it takes to travel across the Township.

Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

11.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with Middle Township Police Chief Christopher Leusner and Captain John Edwards and observed the PSAP. Through these various interactions, specific thoughts were discussed regarding

regionalization and its impact on local operations and residents. During discussion with Police Administration, it was stated that dispatch regionalization is a good concept and needs to be explored. The Chief did not see “familiarity with the area” as an issue to prevent regionalization, as GPS technology addresses this and call takers could still be brought into a regional center from the local areas.

Benefits of regionalizing emergency communications services were considered to be:

- Cost savings
- Shared maintenance of equipment
- Development of a state-of-the-art facility
- Acknowledgement that fire dispatching could be better served through a dedicated regional fire dispatch center

The corresponding drawbacks were noted as:

- Criticality of CAD system and how different community-based policies and procedures would work in a consolidated environment
- Concerns that telecommunication operators should not lose their current jobs, seniority position, salary/benefits, or state pensions
- Concerns that monitoring of Township cameras would be affected
- Concerns about funding models and equitable allocations; concerns that cost savings would not be great enough to justify the change to the ‘status quo’
- Concerns that the governance model must include representation of all involved police and fire participants.

During the on-site interviews, regionalized services were candidly discussed to try to ascertain the type of regional setting that could be envisioned for Middle Township. It was expressed that a single site with a common management structure would be preferred, with an Advisory Board comprised of police and fire representatives who would have the flexibility to address the issues and challenges of regional dispatch for Cape May County. The Police Chief believes a County-wide model would be the best alternative but also sees the merit of a fire dispatch center separate from a law enforcement center. To be successful, he believes a county tax should be established and applied equally throughout the County, whether a community decides to participate or not in the regional communications center.

The Chief and Captain believe that a centrally located center, which is not at risk of flooding or weather conditions, would be the most appropriate location to consider. Although Woodbine (highest ground) and the Airport in Lower Township have been suggested as potential locations, the Chief believes strongly a regional communications center should be centrally located in the county, with the best location being the County Seat, Cape May Court House.

The concept of emergency communications regionalization in Cape May County has been discussed for 20 years and it is felt that the more progressive Chiefs will want to have a say in its outcome. Police Chief Christopher Leusner indicated that he supported the concept of regionalized emergency communications during an earlier study and he still supports the concept, but he believes the planning and implementation details are critical and must be carefully thought out for its success.

Our general observation of the Middle Township PSAP is that in their particular case, regionalized services will have a positive impact on the process of policing within the community so that already scarce resources can be re-allocated to the task of policing without the responsibility of managing a communications center; the Police Administration would like to use any cost savings to hire additional police officers.

Governance and sustainability discussions with Middle Township and others involved in the study yielded an overall understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions. Middle Township Police Managers believed that a model to follow is the County SWAT team, which is comprised of Police Chiefs who act as the oversight Board. There is a complementary team for the Fire service as well. Policies and procedures would then be established by a joint Steering Committee overseen by the respective County Chiefs Associations.

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11.11 Photographic Journal



Figure 11-16:
Image from Middle Township Website



Figure 11-3: Zetron Console and Screens



Figure 11-17:
Site Visit to Dispatch Center

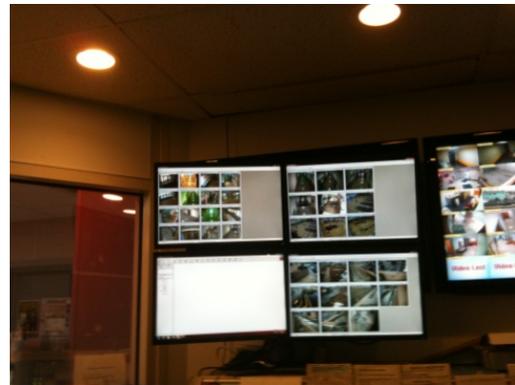


Figure 11-4: Monitors of Camera Locations

Cape May County, New Jersey Existing Conditions Assessment

App-B: 12.0 Belleplain Emergency Corps PSAP

12.0 Belleplains Emergency Corps PSAP

12.1 Belleplains PSAP Overview

Belleplains Emergency Corps is a non-profit organization established in 1957 as a contract provider of EMS services (rescue/ambulance service) that runs 40 vehicles from its location with 117 employees. Belleplains provides EMS services for Dennis Township, The Borough of Woodbine and the Southern Section of Maurice River Township (Cumberland County), which includes the towns of Dorchester, Leesburg, Heislerville and Delmont.

Seven years ago, it evolved to become a PSAP, providing E911 call answering and specializing in fire/EMS dispatching. It is currently the only non-governmental PSAP in the State of New Jersey, chartered as a non-profit, 501C corporation. Located at 167 Broad Street in Belleplains, the PSAP provides call answering and first responder emergency dispatch services for Dennis Township and Woodbine Borough, which includes four Fire Departments, two rescue squads, and call answering and transfer to the NJ State Police Woodbine Station. Law Enforcement for both Woodbine Borough and Dennis Township is provided by the New Jersey State Police, Troop A out of Woodbine Station.

According to Belleplains records, the PSAP serves a stable population for both communities of 8,939 in the winter and 32,231 in the summer. Summer population consists of tourists camping at the many campsites located in the region's national forests and those traveling through the area to the Cape May County shore resorts. All traffic entering and exiting Cape May County, other than Upper Township and Ocean City, go through the Belleplains coverage area.

At various times Woodbine and/or Dennis emergency communications were provided by the Middle Township PSAP and Sea Isle City PSAP, but the arrangements fell apart when the Fire Companies felt they weren't getting the service they needed and that police activity took precedence over fire support. Dennis Township has been served by the Belleplains PSAP for seven years and Woodbine Borough has been served by Belleplains for five years.

12.1.1. Dennis Township Overview

Based on the 2010 census data, Dennis Township has a population of approximately 6,467 full time residents, which is virtually stable from 6,492 in 2000 (a -0.25% decline). *New Jersey Monthly* magazine ranked Dennis Township as its 20th best place to live in its 2008 rankings of the "Best Places To Live" in New Jersey. The rural township is 64 square miles in size and includes over 19 campgrounds. Dennis is located in western Cape May County and borders Cumberland County, Upper Township, Woodbine Borough, Sea Isle City, Middle Township, and the Delaware Bay. Dennis Township includes the following communities: Belleplains, Dennisville, Ocean View, Clermont, Eldora, North-West Dennis,

South Dennis, and South Seaville. Dennis Township is governed under the Township form of government with a five-member Township Committee.

Dennis Township is served by three Fire Districts, all with volunteer fire departments. District #1, Station 17 Ocean View Volunteer Fire Department, has two stations – one in Ocean View and one in South Seaville, which serve the towns of Ocean View, South Seaville, and Clermont. U.S. Route 9 and the Garden State Parkway fall within its jurisdiction. District #2, Station 18 Dennis Volunteer Fire Department, has one station in Dennisville, which serves the towns of North Dennis, Dennisville, and South Dennis. Route 47 falls within its jurisdiction and is a major route from the northwest through Cape May County. District #3, Station 22 Belleplain Volunteer Fire Department, has one station in Belleplain, which serves the towns of Belleplain and Eldora.

Dennis public school students in grades 9-12 attend Middle Township High School in Cape May Court House as part of a sending/receiving relationship. Many students also attend the Cape May County Technical High School in Crest Haven.

12.1.2 Borough of Woodbine Overview

Based on the 2010 census data, the Borough of Woodbine has a population of approximately 2,472 full time residents, a decline of 244 (-9%) from the 2000 census. The township is 8 square miles in size. Woodbine is located in western Cape May County and borders Upper Township and Dennis Township. The Borough of Woodbine is governed by a Mayor and a six-member Borough Council. The mayor serves a four-year term of office and is directly elected by the voters.

The Borough includes Cape May County’s largest employer: the Woodbine Developmental Center, a state run facility for training the mentally handicapped. The Borough is also the location of the Woodbine Municipal Airport, the site of a former U.S. Army airfield.

The Borough of Woodbine is served by one Volunteer Fire Department.

Woodbine public school students in grades 9-12 attend high school in Milleville, Cumberland County as part of a sending/receiving relationship.

12.2 PSAP Call Processing

Belleplain services include 911 call answering and dispatch, emergency medical services, non-emergency ambulance transports, and wheelchair van transports. The 911 coverage area spans from the western boundary of Sea Isle City (including the Garden State Parkway in Dennis Township) to the southern end of Maurice River Township in Cumberland County, which is over 110 square miles. Dispatchers provide services to four fire departments (Ocean View, Dennis, Belleplain, and Woodbine), two EMS agencies (Belleplain and South Dennisville), and 911 call transfer to the NJ State Police Woodbine Station.

Ambulances are dispatched from two permanent stations: the primary station (Squad 22-1) located at 167 Broad Street in Belleplain and a substation (Squad 22-2) located at 595

Dennisville Road in South Dennisville. Each station is manned 24/7 with at least one ambulance staffed with two EMTs. Each ambulance is equipped with a GPS locator that allows the dispatchers to know the location of each ambulance in real time. This results in the closest ambulance being sent to a 911 call and on many occasions responses are under 1 minute. The Belleplain Emergency Corps also provides non-emergency ambulance transports. When transport ambulances are not engaged in a transport they are utilized for 911 calls and are strategically placed throughout the Belleplain coverage area.

During 2012, the Belleplain PSAP handled 4,879 911 calls for service, an increase from the 4,109 911 calls for service in 2011, although data provided by the New Jersey State Office of Emergency Telecommunications based on ANI dips indicates a 16% decrease in 911 calls. The total Calls for Service, including 911 calls, non-emergent emergency runs, and prescheduled wheelchair transports, were virtually stable from 2011 to 2012 at 54,813 (2011) and 54,852 (2012). Belleplain considers a “call for service” as the actual runs to respond to an incident, and does not count multiple calls for the same incident. An incident reflects the number of accidents, not the number of apparatus or police/fire responses that have been sent in response.

Like the other Cape May County communities, the Belleplain PSAP utilizes the County OEM Center as its back-up PSAP.

Calls for Service	2011	2012	Percentage Change
Total 9-1-1 calls received	* 4,109 ** 4,338 State	* 4,879 ** 3,638 State	+19% (+770)
911 Law Enforcement Calls	1,356	1,000	-26% (-356)
911 Fire Calls (CAD Events)	379	304	-20% (-75)
911 EMS Calls (CAD Events)	2,374	3,575	+51% (+1,201)
Total dispatched incidents, incl. 911, non-emergency, and prescheduled transport (CFS)	54,813	54,852	+1% (+39)

Table 12-17: Calls for Service and Call Volume

* Data from Belleplain CAD.

**State 911 data based upon the number of ALI dips

Based upon local CAD data, 9% of the Belleplain dispatched calls for service are the results of 911 calls received. The remaining 91% are non-emergency or prescheduled wheelchair transport services. Of the total 911 calls received in 2012, 20% required a Law Enforcement response and were transferred to the NJSP Woodbine Station. Of the remaining 911 calls received, 6% required fire dispatch and 73% required emergency medical service dispatch. The preceding year saw 33% for Law Enforcement dispatch, 9% for fire dispatch, and 58% for EMS dispatch.

Administrative call volume and ‘radio chatter’ data were not available for this report.

On average, a dispatcher monitors 3 BLS and 4 fire radio positions during a normal shift. Dispatchers do not monitor NJSP units once the one-button transfer to NJSP has been completed.

Certified Communication Officers and Emergency Medical Dispatchers work 24/7 to answer 911 calls and dispatch the appropriate resources. The Belleplain PSAP has three dispatchers on duty at all times during the day and two on duty during nights and week-ends, with additional trained staff available as needed.

Although Belleplain has fairly consistent call volume throughout the year, it is clear when Peak Season comes, which Center administration attributes largely to a spike in campers and traffic accidents. Calls from Memorial Day through Labor Day and into October are the busiest months as reflected in the number of ANI dips recorded by the State of New Jersey’s Office of Emergency Telecommunications.

Belleplain	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec		Total
2011	298	247	284	303	386	395	489	510	396	394	322	314		4,338
2012	289	234	346	308	386	414	355	400	160	291	219	236		3,638

Table 12-2: Monthly ANI/ALI Dips

*State 911 data based upon the number of ALI dips

Based upon the ANI data dips provided by OETS, 43% of Belleplain PSAP’s 911 call volume occurs during the four month (May-August) peak seasonal period as compared to the average ANI dips throughout the other eight months of the year. The average monthly call volume during the four summer months of 2012 is 389 per month, versus an off-season average of 260 per month, almost a 50% increase in average monthly call volume.

Based on CAD data provided by the PSAP, the Center does not have a consistent “busy hour” or “busy day,” although week-ends (Friday through Sunday) are busier than weekdays, based on this anecdotal snapshot. The following busy-hour data was noted from surveying one-week a month during 2012 (time period based on 24-hour clock):

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Busy hour	7-8	8-9	16-17	15-16	23-24	1-2	19-20	16-17	8-9	15-16	18-19	12-13 20-21
Busy day	Thu	Tue	Sun	Fri	Sat	Sat	Thu	Fri	Sat	Fri	Thu	Sun
# calls/normal hr.	1	1	1	1	1	1	2	2	1	1	1	1
# calls/busy hr.	5	4	5	4	4	8	3	3	4	2	2	3

Table 12-3: Busy Statistics Provided by Belleplain

Based on data provided by the Belleplain PSAP, the average time to answer a call is 4.6 seconds, either in normal or busy hour conditions, and the average time to process a 911 call (from pickup to dispatch) is 39 seconds. The average time on incident from the time of dispatch to the time to clear the scene is 21 minutes for fire and 52 minutes for EMS;

State Police time is unknown. Current response time is under 7 minutes; the desired goal is under 10 minutes. In 2012, Belleplain EMS responded to 911 calls with an average response time that was less than 5 minutes.

12.3 Dispatch Operations

Belleplain's three-position center functions as a 'call hub' for E-911 and dispatch, answering all incoming calls. The Belleplain Emergency Corps Dispatch Center performs specific tasks focused mainly on emergency call answering, dispatching for fire, EMS, and OEM agencies, and public safety support services such as scheduling non-emergency ambulance runs and dispatching wheelchair/livery prescheduled runs. Dispatchers monitor nine BLS and four fire units on a single radio position during a normal day.

The Belleplain PSAP is staffed 24 hours a day, seven days a week, by a full-time receptionist and call answerers/EMD dispatchers. The dispatchers are responsible for answering two E911 trunks with "9-1-1, where is your emergency?" and four administrative phone lines, as well as managing two fax lines and one modem. When receiving a call, caller information (name, address, phone, type of emergency, and age and patient update) is entered into the Medical Dispatch CAD system. Calls are then dispatched to fire and EMS first responders on up to six radio frequencies, including monitoring of fire ground channels during an event.

E911 calls are given first priority followed by administrative lines. With three dispatchers on duty at all times, even if multiple calls come in simultaneously, each incident can be processed as its own regardless of the number of incidents in progress. As with other dispatchers in Cape May County, Belleplain dispatchers instruct callers on emergency pre-arrival instructions until emergency response units arrive. Dispatchers receive and respond to telephone requests for emergency services, provide First Aid or CPR instructions until the arrival of medical assistance, utilize radio, telephone, or other electronic equipment to dispatch to four fire departments and two emergency medical units, transfer law enforcement calls for service to New Jersey State Police, and refer non-emergency situations to the appropriate public or private agencies or personnel.

Calls requesting police assistance have a one-button transfer to NJ State Police. State Police monitor the Belleplain dispatch channel and respond as needed to all fire and other calls that require police assistance. Calls requesting fire assistance are dispatched to the appropriate fire company, calls requesting basic life support EMS assistance are dispatched to the closest BLS unit, and calls requesting advanced life support services are transferred via landline directly to Medcomm. Dispatchers are trained to maintain accountability for the Fire and EMS crews and to monitor fire/ground during an incident, including performing six-minute safety checks.

Belleplain management hosts monthly meetings with the Fire Chiefs, EMS chiefs, and State Police management to discuss issues and any problems that may need resolution, review procedures, and modify dispatch protocols as necessary. Belleplain dispatchers

follow resource deployment schedules based on the type of fire according to requirements from each Fire Department; these may vary from Fire Department to Fire Department.

Administrative/non-emergency calls often involve nursing staff from a facility calling and asking for patient transport to a local emergency room or hospital. The dispatcher will ask the nurse for patient name, chief complaint, location at nursing home, and desired hospital, along with other pertinent information. The dispatcher will then give the nursing home an ETA; Belleplain policy is to give all facilities an ETA of 30 minutes or less for a routine medical dispatch. If the facility states they need someone there sooner, the dispatcher will advise the caller to call 911. Belleplain ambulances will transport patients to any of the regional hospitals: Cape Regional on in Cape May Court House, Shore Memorial in Somers Point, South Jersey Regional in Vineland (Cumberland County), or the Atlantic City Medical Center (Atlantic County). Medivac transport is staged at Woodbine and flown to the Regional MediVac Unit in Newark.

The receptionist also provides a number of routine non-emergency support services. These activities include but are not limited to the 'switchboard' for administrative call answering and call transfers and providing access to the building, to name a few.

These and other activities dispatchers participate in can be found in the following Table.

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Dispatcher Services and Tasks	Please check all that apply
Emergency Dispatch Tasks (911)	
911 Call Answering	X
Provide EMD	X
Transfer to EMD Provider < Belleplain IS THE Provider >	
Police Dispatch <One button transfer to NJSP>	
Fire Dispatch (tone or radio)	X
Medical Dispatch	X
Ambulance Call Out to surrounding Towns	X
Routine Public Safety Tasks	
Request assistance of Highway/DPW	X
Request mutual aid/special services	X
Request wrecker assistance	
Request wildlife removal	
Walk-in Requests for Medical Assistance	X
Monitor prisoners in holding cells and booking area	
Assist in prisoner evacuation in case of emergency	
Process fingerprinting/fees	
NCIC lookups/Background checks	
Enter warrants/restraining orders	
File Protective Orders	
Activate Knox Box keys for Fire Dept	
Non Emergency Dispatch Tasks	
Town/Non-Emergency Call Center	
After hours pick-up/drop off for money and possessions	
Walk-in Requests for information/complaints/directions/town functions	
Walk-ins with lost/stray dogs	
Safe Haven	X
Provide keys for elevator and building access	
Maintain Parks and Recreation Permits	
Provide applications/complete information for pistol permits	
Provide change of address stickers	
Monitor court ordered child exchange (custody)	
Assign officers to work vacancies	
Assignment of crossing guard posts	
Dispatcher Services and Tasks	
Please check all that apply	
Provide paychecks to crossing guards	
Collect time cards	
Coordinate functions during special events	
POC for probation officers and meetings	
Electronically open/close sallyport doors and prison cells	
Monitor/Receive incoming residential/commercial alarms	X
Other Dispatcher Tasks	
Dispatch of Non-Emergency Transport	X

Table 12-4: Listing of Dispatch Service

12.4 Staffing

Belleplain PSAP does not have much turnover in its dispatch personnel. The PSAP is authorized for 23 full time civilian call taker/dispatch staff. The Center is currently staffed with 23 full time EMD-trained dispatchers; the Center does not use any part-time staff. Three dispatchers are assigned to each 12-hour shift during the day and two are assigned on nights and week-ends, plus the supervisor and person in the business office. All are trained EMD dispatchers. It is mandatory that there are at least two dispatchers on duty at all times.

Emergency response staffing (for example, during a large storm) would have dispatching as needed and an OEM representative staffing an extra desk in the dispatch center to assist with call answering. The NJ State Police operate a Command Center in the Belleplain Conference Room and Supervisor Offices. Most Belleplain personnel are trained dispatchers and available to provide relief as necessary during an emergency response.

The Belleplain PSAP function is organized in the following structure:

- CEO: Chief William King, Senior
- Department Head
- Department Supervisor (Daytime) or EMS Supervisor (Nights and Weekends)
- Dispatchers
- Receptionist during the day

Belleplain has a full-time position for Dispatch Department Supervisor. This position is responsible for the management, scheduling, training, and staffing of the PSAP. The Supervisor can also perform all duties of a dispatcher and on occasion fills in as needed. The Supervisor's duties include a myriad of management functions to support daily events within the Center. These include:

- Liaison to Dennis and Woodbine Fire and EMS Agencies and State Police
- Interviewing, hiring and processing all communications employees
- Handling all disciplinary matters involving communications employees
- Training and/or coordinating training for new employees
- Quality assurance reviews on an ad-hoc basis
- Maintaining State required documentation for the Center
- Preparing, authoring, and/or modifying policies and procedures
- Scheduling employees to ensure staffing requirements
- Approving/denying time off requests for communications employees

The Supervisor reports to a Department Head and ultimately to the Belleplain CEO. Under this arrangement, the Dispatch Supervisor is often involved in establishing procedural and operational nuances that each served agency requires.

Belleplain is currently run by CEO Chief Bill King, with oversight from CFO Debbie King. The operation is overseen by a Board of Trustees, made up of representatives from served agencies. According to the CEO, the ByLaws of the organization are in the process of being modified to establish an Executive Advisory Committee (Board of Directors) to replace the Board of Trustees. This Board of Directors will be chartered to have a more

active role in oversight of day-to-day operations and decisions with the intent of establishing a long-term organizational structure for future operational viability of the Center. This perceived risk of long-term viability is one area that has been mentioned as an area of concern by other Fire Chiefs in the county.

The following table is a breakdown of Full-Time Employees (FTE) and Part-Time Employees (PTE) of the PSAP positions that are authorized and the current staffing level.

Positions	Personnel Authorized
CEO (Oversees PSAP and EMS Operations)	1
Department Heads (1 Day Supervisor, 2 EMS/Transport Dept. Heads)	3
Information Technology Coordinator	(Volunteer Staff)
Training/Quality Assurance	(Dept. Head)
Receptionist (PSAP and EMS Operations)	1
Shift Supervisor (Night/Week-end EMS Supervisors)	3
Relief EMS Supervisors	2
EMD Dispatchers (FT) ***	23
Telecommunicators (FT) ***	(23)
Administrators and Billing Staff (PSAP and EMS Operations)	5
Shift Schedule:	12 hour shifts 7A-7P; 7P-7A
Total PSAP 9-1-1 Staff <i>(Total does not include EMS/Transport Staff)*</i>	25 FT*; 0 PT

Table 12-5: FTE Equivalents and Authorized Staff

*** All dispatchers, supervisors, Department Head, CFO, and CEO are certified Telecommunicators and EMD dispatchers.

The pay scale range for full-time dispatchers is \$11-\$15 per hour, and dispatchers are scheduled to work between 1068 to 1825 hours annually. This equates to a range of \$11,748 (for 1068 hours at \$11/hour) to \$27,375 (for 1825 hours at \$15/hour). Part-time dispatchers would be paid on an hourly basis of \$11 per hour. Benefits are calculated at about 29% of salary. Belleplains is a private operation and dispatchers are not covered under a union or contractual agreement. Annual leave per employee (vacation, sick, training) varies from 2 to 8 weeks, depending on time in the position.

Belleplains Emergency Corps is a non-profit organization that pays its own salaries, not a governmental organization. According to Belleplains management, the dispatch function is largely subsidized by the EMS business. The PSAP operates on a very lean budget. Woodbine and Dennis pay an annual dispatch service contract, which has not increased from the time Belleplains started providing services seven years ago.

12.5 PSAP Capabilities

Belleplain PSAP is in a two-year old “pre-fab” building that is hurricane rated. The building replaced a prior structure that was hit by lightning. In response to that incident, the new building was designed with a comprehensive system of copper halo lightning protection and grounding rods. The location is one of the highest points in the county and has never experienced any flooding.

The Belleplain Communications Center is 25 by 23 feet with two 911 console positions and a supervisory position, any of which can be primary; the desk furniture is older style. The room is large and could easily be expanded to include three more console positions; the room is already wired for future expansion. The building has secure card access and is not utilized as a public building; there is no “walk-in” traffic as a police department PSAP has.

Belleplain Emergency Corps has a building generator and a 1000-gallon propane tank. The generator and whole building back-up system is tested weekly. The County OEM Center is the back-up center for any overflow condition or outage.

Capabilities	Belleplain System Description
Computer Aided Dispatch (CAD) and Records Management System (RMS)	CAD: Medical Dispatch (10-year old) RMS: none
Mapping	CAD mapping system is not used. GPS trackers on ambulances Rastract and Google Earth used for mapping
E-911 Consoles and Equipment	Zetron (6-year-old system) Phase II Capable
Radio Control Consoles and Equipment	Zetron (6-year old system)
Recording System	Zetron

Table 12-6: Equipment Capabilities

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12.6 Radio Systems and Frequencies

Belleplain, Dennis, and Woodbine operate on VHF radio frequencies, which have been narrowbanded, with a six-year-old 100 Watt Kenwood transmitter at the PSAP and a repeater on the Woodbine Tower at Grant Avenue, Woodbine. Belleplain also maintains a Mobile Command Center. The radio system supports 25 portables and approximately 20 mobile units. Each Fire Department has its own radios. For the most part, they do not have any coverage issues; Belleplain has switched to Fire 3, which eliminated dead spots in the area served by Ocean View Fire.

According to interviews, Fire is supported on three frequencies and fire paging tones. Belleplain PSAP utilizes the Zetron Integrator paging/alerting system. Dispatch utilizes a talk out channel and a fire/ground channel. From the six-year-old Zetron console, dispatchers can patch to VHF, UHF, and 800 MHz, enabling communication with Coast Guard and Air Traffic Controllers. According to Belleplain data, each of six frequencies is designated on a different radio base station, located in a second floor radio room at the Belleplain PSAP: 154.130 (Fire), 154.190 (Fire), 155.115 (Fire), 155.295 (EMS), 155.205 (EMS), and 155.940 (EMS). The chart on the following page indicates the Belleplain Emergency Radio Channels, as provided by the PSAP.

According to Radio Reference.com, the following channels are licensed and in operation in Belleplain, Dennis, and Woodbine:

Frequency	Input	License	Type	Tone	Alpha Tag	Description	Mode	Tag
155.1150	153.7550	WPSH385	RM	67.0 PL	Den Fire 3	Fire 3	FM	Fire-Talk
155.9400	158.8800	KCN357	RM	432 DPL	Den Fire 4	Fire 4 (shared Woodbine)	FM	Fire-Tac
155.9400	158.8800	KCN357	RM	223 DPL	BEC EMS DISP	Belleplain Emerg. Corps (shared Woodbine)	FM	EMS Dispatch
155.2050		WPML810	BM	118.8 PL	BEC EMS PRV	Belleplain Emerg. Corps (private channel)	FM	EMS-Tac
154.9800		WRB523	BM	131.8 PL	Den DPW	DPW	FM	Public Works

Table 12-7: Radio Frequency Listing from Radio Reference

Nextel radios are used to talk off line and to provide talk around from local operations. A separate Sprint Nextel repeater is installed in the building. The Zetron console can patch in the Nextel cell phones.

Ch.	Channel ID	RX Freq.	PL-Tone	TX Freq.	PL-Tone	Scan A/D	
1	CAPE EMS	155.2950	118.8	155.2950	118.8	A	
2	HOSPITAL	155.3400		155.3400		D	
3	EMS 3	155.2800		155.2800		D	
4	SPEN 4	153.7850		153.7850		D	
5	CUMB EMS 1	155.2200	179.9	155.2200	179.9	A	
6	CAPE FIRE 1	154.1300	118.8	154.1300	118.8	A	
7	CUMB FIRE 1	154.4300	179.9	154.4300	179.9	A	
8	DENNIS FIRE 3	155.1150	067.0	153.7550	067.0	A	
9	BEC TRANSPORT	155.2050	118.8	155.2050	118.8	A	
10	BEC EMS	155.9400	D223N	158.8800	D223N	A	
11	CUMB FIRE 2	154.3250	179.9	154.3250	179.9	D	
12	CAPE FIRE 2	154.1900	118.8	154.1900	118.8	D	
13	CAPE OEM	154.0850	118.8	154.0850	118.8	D	
14	CUMB OEM	154.0850	179.9	154.0850	179.9	D	
15	MRT OEM	155.7750	179.9	155.7750	179.9	D	
16	CUMB EMS 5	155.3250	179.9	155.3250	179.9	D	
17	SJ NET	154.2650		154.2650		D	
18	CUMB FIRE 6	159.4650	179.9	159.4650	179.9	D	
19	OEM OPEN	154.0850		154.0850		D	
20	DENNIS TWP PW	154.9800	131.8	154.9800	131.8	D	
21	FOREST FIRE	159.3750	179.9	158.3750	179.9	D	
22	UPPER 1	158.9400	D664N	155.9850	D664N	D	
23	SEA ISLE AMB	155.3550	141.3	150.7900	141.3	D	
24	AVALON	154.3850	118.8	153.8300	71.9	D	
25	STONE HARBOR	154.3850	118.8	153.8300	118.8	D	
26	V-CALL	155.7525		155.7525		D	Narrow
27	V-TAC-1	151.1375		151.1375		D	Narrow
28	V-TAC-2	154.4525		154.4525		D	Narrow
29	V-TAC-3	158.7375		158.7375		D	Narrow
30	V-TAC-4	159.4725		159.4725		D	Narrow

Table 12-8: Belleplain Emergency Radio Channel Listing (Dispatch Console)

12.7 Voice and Data Interoperability

There is no regional voice and data interoperability between Belleplain and other disciplines within the County although the county does use a county-wide channel to communicate on dispatch-to-dispatch and dispatch-to-car.

Voice interoperability could exist more than it does as most towns in Cape May County are VHF.

Belleplain provides mutual aid for Upper Township Rescue, Sea Isle City, Middle Township, Maurice River Township, and Commercial Township. The PSAP receives a direct call requesting mutual aid and then dispatches the closest BLS unit to the scene. Fire Chiefs indicated that they work well with Sea Isle City and drill together, but they are on different protocols and when they enter Sea Isle City, they switch over to Sea Isle's dispatch channel.

12.8 Data Communications

Belleplain subscribes to an E-Pager System, which enables the PSAP to send a text or voice message to cell phones, radios, or pager units.

The need to have better cross-jurisdictional information and resource sharing has become a costly and difficult part of the data interoperability equation. To share information and coordinate the sharing of agency resources requires either the consolidation of all agency applications to a single system or integrating the disparate agency applications into a platform that can provide interoperable access as a solution.

Belleplain indicated it would be interested in a new CAD to replace its Medical Dispatch CAD system, although cost is a prohibiting factor. Enforsys is used by most PSAPs in the County. For the communities that utilize the Enforsys system, inter-jurisdictional record sharing and reporting could be achieved. However, going forward establishing an integrated CAD/RMS and mapping data tool for inter-jurisdictional and inter-discipline records management and resource mapping will require a regional needs assessment by agency and discipline to best establish the feature functionality and level of service to support each discipline in a regional setting.

12.9 Training

All of Belleplain's dispatchers are required to receive and maintain certification by the Office of Emergency Telecommunications Services in the Department of Law and Public Safety. Dispatchers in Belleplain are all New Jersey State Certified Telecommunicators and are EMD trained. Rural, geographically dispersed communities such as those supported by Belleplain may require a greater degree of continuous medical direction to callers than the smaller towns on the Barrier Island, due to the time it takes to travel across the communities.

Belleplain provides EMD training programs that are attended by most of the County's dispatchers and EMS personnel. Belleplain is contracted to conduct the County's EMD training. Belleplain Emergency Corps offers classes and continuing education for EMT-B, EMT-P, and RNs; courses include CPR, First Aid, Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), Pediatric Education for Pre-hospital Professionals (PEPP) and International Trauma Life Support (ITLS).

The State of New Jersey offers a list of telecommunicator certifications and training courses offered throughout the course of the year. Telecommunicators are required to recertify every other year. The following have been approved for training: APCO Institute courses, as well as Basic Telecommunicator (BTC); National Academies of Emergency Dispatch (NAED), Emergency Telecommunicator (ETC) and National Emergency Communications Institute (NECI). Additionally, Emergency Medical Dispatch courses are also offered.

Every year or two telecommunicators must be recertified, which includes Emergency Medical Direction. EMD flip cards and protocols are issued under the State Department of Health. Continuing education classes are required for all certified telecommunicators as per State of New Jersey criteria listed on the State website.

12.10 Observations, Operational Procedures, Processes, and Study Goals

The I/A Project team attended on-site reviews, facility tours and time with Belleplain staff and observed the PSAP. We met on January 24 during the morning with CEO Chief Bill King Senior, CFO Debbie King, Dennis Township OEM Volunteer Bill King Junior, Dispatch Supervisor Rick English, Dennis Township Emergency Management Coordinator Michael Haggerty, and Woodbine Councilman and Fire Chief Clarence Ryan.

We met on February 11 in the evening during a Belleplain monthly meeting with Fire/EMS chiefs. Attendees included CEO Chief Bill King Senior, CFO Debbie King, Dennis Township OEM Volunteer Bill King Junior, Dennis Fire Chief Robert Brewer, Ocean View Fire Chief Joe Gurdziel, Ocean View Deputy Fire Chief Bob Clayton, Ocean View Assistant Fire Chief John Berg, Dennis Township Emergency Management Coordinator Michael Haggerty, Dennis Township Deputy Mayor Brian Teefy, Dennis Township Committeeman Frank Germanio, Woodbine Councilman and Fire Chief Clarence Ryan, and Woodbine Deputy Emergency Management Coordinator Jeff Doran.

Through these various interactions, specific thoughts were discussed regarding regionalization and its impact on local operations and residents. During discussion with Belleplain administration, the concept of a regional Fire Communications Center was explored as well as total dispatch regionalization. Belleplain management indicated they are not interested in going to centralized dispatch/regional dispatch, although they would consider expanding their operation to serve more Fire/EMS agencies.

Feedback from the representatives from Dennis Township and Woodbine Borough was overwhelmingly positive, expressing satisfaction of town councils, first responders, and residents with the service they are receiving from the Belleplain PSAP. The Fire Chiefs

indicated that they have always canted centralized fire dispatch, and now they feel like they have it with Belleplain. Their key message was “don’t fix what’s not broken.” The local Fire Chiefs and committee members indicated they have no problem with the rest of the County going to centralized dispatch; they just hope it isn’t mandated for them to go.

Belleplain management indicates their success is a result of their dedication to fire dispatch, and believes service suffers when you have one person responsible for both police and fire dispatch. They also attribute their success to their staffing model, in which two to three dispatchers are on shift at all times with others readily available as needed.

Benefits of regionalizing emergency communications services were considered to be:

- Shared maintenance of equipment
- Acknowledgement that fire dispatching can be best served through a dedicated regional fire dispatch center, although they already operate in that model and fear disrupting it.

The corresponding drawbacks were noted as:

- Lack of dispatcher familiarity with ‘our’ town and loss of “family environment” between dispatchers and first responders
- Perception that control of communications would not be in local hands
- Belief that residents don’t want to change the status quo and no interest from local officials
- Concern that the service level would suffer if Center operations expanded
- Fear Fire/EMS needs would be pre-empted by the needs of a larger City
- Challenges of how different community-based policies and procedures would work in a consolidated environment
- Concerns whether dispatchers would remain employees of Belleplain or become municipal/county employees, and the impact this would have on salaries and benefits
- Concerns about funding models and increased taxation to residents
- Concerns that the governance model must be independent of county influence/politics and must include representation of all involved fire participants.

During the on-site interviews, regionalized services were candidly discussed to try to ascertain the type of regional setting that could be envisioned for the Belleplain PSAP. It was expressed that a single site with a common management structure would be preferred, with an Advisory Board comprised of fire, EMS, and law enforcement representatives who would have the flexibility to address the issues and challenges of regional dispatch for Cape May County. If regionalization occurs, the Belleplain stakeholders believe a single site but with dedicated fire dispatchers separate from law enforcement dispatchers would be the most successful model. To continue providing

excellent fire/EMS dispatch services, Belleplain management estimated it would staff a centralized facility with one dispatcher dedicated per municipality. To be successful, the management team must be independent and not affiliated with County politics. They also believe a county tax should be established and applied equally throughout the County, whether a community decides to participate or not in the regional communications center. They cited the example of the County Library Tax, which every resident has to pay, whether or not an individual town has a library.

Our general observation of the Belleplain PSAP is that it does an excellent job in supporting the Fire/EMS services it specializes in. Although he had some misgivings, CEO and Chief Bill King is willing to explore a larger role in providing Fire/EMS dispatch services to more Fire/EMS Departments across the County, but only if he is able to maintain the same level of service that Belleplain provides today. He is not interested in joining a county-wide regional dispatch center with a law enforcement focus, and he is not comfortable stepping up to become a police dispatch center.

Governance and sustainability discussions with Belleplain and others involved in the study yielded an overall understanding that regardless of the possible configuration, a strong governance structure and equal participation by jurisdictions and disciplines will provide the balance necessary for continued regional discussions. All felt that a regional center must be independently, professionally managed by an experienced Public Safety Communications Director, not by a County appointee or a Law Enforcement official.

Although Belleplain describes itself as a non-profit, independent organization, several other Fire Chiefs in the County expressed misgivings that the operation may not be as independent as it seems, since the Belleplain dispatch operation is largely subsidized by its EMS revenue and run by a CEO in a business model similar to a private company.

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12.11 Photographic Journal



Figure 12-18:
Belleplain PSAP Communications Room



Figure 12-3:
Dispatch Position Console and Screens



Figure 12-19:
Belleplain Dispatch Position

Figure 4:



Two Figure 12-4: Dispatch Positions



Figure 12-5:
Belleplain Parking Lot/Land