

DEPARTMENT MEMORANDUM

TO: Peter Harris
Council Central Staff

DATE: 9/6/13

FROM: Jim Pugel, Chief of Police, Clark Kimerer, Chief of Staff

SUBJECT: Size of Police Force SLI

Please see the attached response to SLI 62-1-A-1. If you have any questions, please contact Greg Doss at 5-1230. Thank you.

Response to Statement of Legislative Intent #23 (62-1-A-1)
Budget Action Title: Police: Determining the appropriate size of the police force

August 29, 2013

Statement of Legislative Intent (SLI) 62-1-A-1:

In approving the budget for the Police Department, it is the Council's intent to develop a more complete basis for determining the appropriate size of the police force.

The Council recognizes that there is unlikely to be a good and complete answer to this question that is readily available. Therefore, the best approach may be a phased approach, in which the City reviews the sworn staffing requirements for major police functions in light of the major outcomes desired of the police.

Accordingly, the Council requests that the Police Department, Executive and Council staff jointly develop a scope for analyzing the sworn staffing requirements for major police functions. This may begin with a review of the Neighborhood Policing Plan for patrol, and then proceed sequentially to other major functions such as crime investigations and traffic enforcement.

SLI Response: The following scope has been developed by an interdepartmental team (IDT) consisting of staff from the Seattle Police Department (SPD), City Budget Office (CBO) and Council Central Staff.

Scope for Determining the Size of the Police Force

1. Introduction / Background:

The Neighborhood Policing Plan (NPP) has served as the deployment model and strategic staffing plan for the SPD patrol function since 2007. The City Council requested an update to the NPP in the 2012 Adopted Budget; however, uncertainty in the economy and a pending Department of Justice Settlement Agreement (SA) made a thorough update difficult.

Due to progress in the SA and stability in funding for officer staffing, the department is now in a better position to review both the NPP and the size of the entire police force. The department put together an interdepartmental team to determine how best to move forward. The team consists of the following members:

- Chief Clark Kimerer with the SPD will direct the project.
- Peter Harris and Dan Eder, from Council Central Staff representatives, will keep City Council members informed of potential policy changes and advise the IDT.
- Candice Livingston, the CBO representative, will keep the Budget Director and Mayor apprised of the financial and policy changes that are under consideration.
- Greg Doss and Angela Socci with the SPD will coordinate the project.
- Officer Greg McFadden, Peggy Garcia and Brandon Bouier of the SPD will serve as subject matter experts.
- Peter Bellmio ,a private contractor that specializes in deployment analysis, will serve as a project consultant
- Christopher Koper and David Weisburd from George Mason University's Criminology Law and Society Section will serve as consultants to the project in the areas of deployment and crime analysis.

The team agreed that it would take a phased approach that focused first on two major areas: 1) determining an appropriate number of 911 responders; and, 2) determining the appropriate size of the entire patrol function. It was further agreed that future phases will examine other functions, including the department's specialty units (e.g. Arson, Bomb Squad, Traffic, etc.) as well as its investigative units.

The IDT agreed that determining the right size of the 911 function is a key first step in determining the overall size of the police force because 911 responders represent 40% of the department's sworn officers, and because 911 response is a departmental priority.

Determining an appropriate number of 911 responders

To begin this process, the department will conduct a deployment analysis that considers the many changes that have occurred since 2007, which will contribute to a revised NPP and a new deployment map. These changes include an adjustment in the way the department staffs its relief squads, a reduction in overall call volume and a change in the nature of the calls (e.g. ratio of Priority 1 to Priority 2 calls).

Similar to the 2007-08 NPP process, deployment metrics will rely on an analysis of patrol workload data using the Managing Patrol Performance (MPP) software program. The MPP software uses data from the department's computer aided dispatch (CAD) system to more precisely match workload to officers assuming a patrol officer work schedule of four days on, two days off with nine hours assigned per day. The MPP algorithm works by identifying the number of officers available, the number of calls they must address and the time it takes for an officer to get to a call.

The MPP staffing analysis results will help SPD to evaluate the current geographic lines used for patrol deployment. Along with service hours for all units dispatched to calls for service, the approach to deployment map development will be expanded to incorporate more data driven methods, including comparing crime incidence to calls for service, and input from various academic and professional consultants.

The MPP process will also help the department examine the question of whether additional officers will allow it to meet a 7 minute response time in all parts of the City and at all parts of the day. While the department is currently evaluated on a 7 minute citywide average response time, the original NPP had articulated a higher, longer-term goal of having no more than a 7 minute response at any place or time. This may again be identified as a longer-term goal.

The department expects that a better matching of resources to workload will result in a more efficient workforce. The identification of these efficiencies will factor into the NPP process and help the SPD determine if additional officers are necessary. This question may also be addressed in subsequent phases that examine the appropriate size of the non-patrol force.

We estimate that the size and complexity of the first phase of the project will require the remainder of 2013 and three quarters of 2014 to complete (approximately 18 months).

Determining the appropriate size of the entire patrol function

Following the determination of the 911 responder deployment, SPD will evaluate the right size of the remaining patrol function, which includes bike and foot beats as well as specialized officers assigned to Anti-Crime Teams or Community Police Teams. Determining the right size of these functions will present a challenge due to the lack of research available. For the purposes of determining the appropriate size of the total patrol force at SPD, we intend to evaluate the rest of patrol independent of 911 responders, assuming staff size should not be based solely on the proportion or number of available staff.

The department may also use this opportunity to validate its existing proactive time goals and may develop a new model around refined goals. Based on experience gained over the past five years, SPD has realized that proactive time could include certain officer initiated calls or time spent on the deployment of directed and predicted patrol. Strategic use of bike and foot beats and emphasis patrols deployed around specific strategies could be factored into the proactive time goal, ultimately affecting the number of needed patrol officers. This analysis will be focused on the impact that these types of deployments have on crime prevention. An updated timeline to include other patrol functions will be provided with the scope during the fourth quarter of 2014.

2. Phase one scope and deliverables:

At this time, the department is only able to provide a list of the scope and deliverables for the right sizing of the 911 patrol function. The department will present the scope and deliverables for the right sizing of additional patrol functions in the fourth quarter of 2014.

Phase one of this plan will include four specific tasks:

- Workload data and staffing analysis using the MPP computer model;
- Service hour calculation and development of a service hour map;
- Development of new deployment maps (precinct, sectors, districts, & beats); and
- Rollout of the new deployment and maps.

Workload data and staffing analysis using the MPP computer model

Once patrol workload data is collected and verified, Peter Bellmio will employ the Managing Patrol Performance (MPP) queuing model to determine the minimum number of officers needed to respond to calls by both time of day and day of week. This process will also determine the officer numbers that are needed to maintain current NPP goals, as well as to provide the best staffing level for peak work times (e.g. Friday and Saturday nights). Christopher Koper will address issues of data integration and also advise on best practices around deployment.

Service hour calculation and development of a service hour map

When calculating service hours, SPD will analyze 911 call data and consider both call type as well as the emergent nature of the 911 calls. Command staff will revisit the 2007 decision to exclude on-view data and lesser emergencies that could potentially be classified as Priority 2. The analysis of service call data will include a comparison between call data and crime data to ensure that the service hour calculation is representative of both high-crime locations and 911 call locations. Whereas service call data serves an important purpose in the determination of staffing needs, crime data is also a strong indicator of the need for police services. It is our hope that the crime data analysis will validate our service hour calculation.

The IDT's SPD subject matter experts have already done preliminary work on the service hour calculations and will work with SPD Command Staff to determine the final variables that should be considered in additional data queries for analysis. SPD chiefs will review the options and associated assumptions to determine the final data query components. The department is prepared to look at numerous data runs in order to fully analyze all the different variables that contribute to officer workload.

Development of new deployment maps (precincts, sectors, district, & beats)

Upon completion of the data and modeling steps, SPD staff will revise the service hour map with input from command staff. The map may possibly define new boundaries and will serve as the basis for the analysis that will be done by David Weisburd, one of the deployment and crime analysis consultants.

Weisburd will compare the service hour map with his prior work on Seattle's crime micro-places (hot spots) and, working with the Crime Analysis Unit (CAU), will note any

disparities between the maps. If any disparities exist, the IDT will work with CAU and Weisburd to determine if the final deployment map needs to be revised accordingly.

Prior to rolling out the new deployment map, a small team comprised of NPP managers will:

- 1) Consider how officers should be distributed across Seattle's geography;
- 2) Consult with the command staff, as well as Precinct Captains and CAU, to determine new boundaries for SPD's beats, sectors, districts & precincts; and,
- 3) Determine the ideal number of sergeants needed to provide adequate supervision. This work will be informed by the SPD Compliance Team and the work of the DOJ Monitor.

As in prior map boundary exercises, the department will strongly consider natural obstacles such as the Ship Canal and community and neighborhood boundaries.

Rollout of the new deployment maps

The proposed map will be evaluated and modified based on input from the Mayor's Office, the City Council, the DOJ Monitor, the Community Police Commission and the various Precinct Advisory Committees. The department will also hold community meetings to get feedback from Seattle citizens on any proposed changes to the existing deployment map.

Once reviewed and updated based on feedback, SPD's Information Technology (IT) staff will integrate the new maps with its existing systems while the department's Training section conducts system-wide trainings around the new deployment strategies. The new deployment map will require many technical system changes prior to its implementation. The IT and Communications sections will likely spend the last half of 2013 preparing the CAD and other electronic infrastructure (e.g. Video Mobile Data Terminals) for a September 1, 2014 "go live" date.

3. Schedule:

As noted on the attached timeline, the department has divided the right sizing of the 911 patrol into three tasks which may or may not overlap as they are carried out. As is noted above, an update of the Department's deployment policy is a complex, time intensive undertaking that will require the remainder of 2013 and the first three quarters of 2014. However, this bottom up process is the preferred way to determine how 911 responders are deployed within the confines of budget and authority and determine if additional or fewer 911 patrol officers are necessary, which could affect other patrol functions. The 911 exercise is the first priority and will be followed closely by other functions of the SPD patrol.

If the department determines that additional officers are necessary to meet a goal of a 7 minute response time during all parts of the day and in all parts of the City, then the Mayor may choose to propose additional officers as part of the 2015 budget process. It is also possible that SPD could take nearer-term actions (e.g. transfers of officers from non-patrol) to bolster the 911 force. This latter action might make sense as a temporary step until subsequent analyses are done on non-patrol functions. Either action would be made in consultation with the Mayor's Office.

The department will not be requesting any new resources to carry out the work that will be done in 2013. There will be some costs in 2014 for SPD to re-draw its deployment map and program the changes into its Computer Aided Dispatch (CAD) system. Some of the work requirements will include development of hard copy maps for all department facilities, development of training materials, changes to the department's web pages, the loading of the maps into the Video Mobile Data Terminals (VMDTs) and amendment of various reports that rely on geographic parameters. The department is working to estimate the costs of these activities and will provide to the City Budget Office a Budget Issue Paper that identifies all relevant costs.

4. Future Steps:

As noted above, the determination of the right size of patrol is the second phase in this process. This phase will begin in 2014 and extend into 2015. Since the second phase of the project has not yet been scoped, it is not possible to determine how the work will align with the City Budget process. That said, the department does not currently expect to request any additional resources to complete the next phase.

In future phases, the department will continue its work on the SLI by examining its remaining functions. The IDT staff will perform a literature review to determine best practices around staffing of police specialty functions to identify proven methods. For our analysis of the investigations functions, we will examine crime clearance rates and detective workload, which will assist in the determination of the number of staff that is needed to reach desired goals in this function. The IDT will continue through the various functions until it has built a model that can adequately answer the question about the appropriate size of the police force.