


ECD = estimated completion date


ESD = estimated start date

FA - Fleet Anywhere (fleet management information system)

FABRS = Fleet Anywhere Billing Reporting System

 Indicates item appeared on both Chatham and Mercury Reports.

(M) Indicates item appeared on Mercury Report only.

 Indicates item is complete or no further action is required.

 Indicates will not accomplish or noted comment.

Benchmarking Results

Recommendation	Status
1 Seattle's overall fleet department is about 7% smaller than the five other municipal fleets benchmarked, has 1,705 more vehicles than the average of the five comparable fleets, yet performs the highest percentage (94%) of in-house work among them.	<p>1. Complete. Followed consultant recommendations and increased staffing.</p> <p>2. I/P. Fleet Utilization review underway to identify and reduce underutilized vehicles. 189 vehicles identified for reduction to date (9-28).</p> <p>3. I/P. Developing a performance measure to outsource peak workload as per consultant.</p>
2 Seattle is unique with its Metal and Aerial Rebuilding Shops - no other city has such an operation.	I/P. Evaluating performance and cost effectiveness of in-house work in these categories against available commercial sources. Identified shop core business. Reclassified one staff from the Metal & Machine Shop and evaluating possible further changes slated for 2010.
3 Seattle was the only fleet that that does not separately account for fleet replacement and fleet operating funds.	Complete. Changes were made in 2008 and incorporated in 2009. The fleet capital replacement fund is separate from the fleet operating fund.
4 Seattle's markup for vendor repair is above average. Seattle 22% / average range 15%.	I/P. Change to 15% as per recommendation scheduled for 2010 budget.
5 Seattle's technical training hours is among the lowest. Seattle 13 hrs / average 42.75 hrs	Complete. Established 2009 budget to provide 40 hours of technical training per technician.
6 All but Seattle have incentives for mechanics to gain certification.	Complete. Increased heavy-duty mechanic pay \$0.90 per hour.
7 Seattle is one of two agencies that does not have service level agreements.	Service level agreement with SPU is complete. A service level agreement with Parks is in progress. Drafts sent to SCL, SDOT, Fire and Police. Due to the complexity of agreements this project will extend into 2010.

Indicates item appeared on both Chatham and Mercury Reports.

Cost of Services Analysis

Recommendation	Status
1 As noted in the benchmarking analysis, Seattle has an extraordinary amount of personnel in its specialty shops.	Complete. Re-defined shop core work and evaluated adjustments in staffing levels in 2009 for Tire Shop, Metal and Machine Shop, Paint and Body Shop, and Capitalization Shop. Reduced one position in each shop in 2009.
Aerial Rebuild Service	
2 In the consultant's opinion, most, if not all, of the aerial rebuild activity is not cost effective when taking into account the total costs to perform this work, including vehicle downtime.	I/P. Prepared specifications for bid proposal for this work. Proposals are designed to meet Washington State requirements and manufacturers' recommendations. Proposal sent to City Purchasing for review in September 2009. ECD - October 2009.
3 Overhaul work that is primarily outsourced work costs less than that done primarily in-house.	I/P. See above. Proposal solicits pricing for overhaul that meets Washington State requirements and manufacturers' recommendations. ECD - October 2009.
4 The amount of in-house hours to perform this work appears excessive.	I/P. See above. Proposal solicits pricing for overhaul that meets Washington State requirements and manufacturers' recommendations. ECD - October 2009.
5 The costs of some of the in-house overhauls plus downtime appear to be greater than the costs of new units.	I/P. Items 2-4 above help drive this comment. FSD will meet with SCL fleet management staff after bids are received to establish life cycles for aerial trucks that align with best industry practices to replace vehicles in a timely manner to minimize downtime. ECD - December 2009.
6 Acquisition for Seattle's aerial device trucks appear to be higher than industry averages.	SCL creates specifications for aerial trucks and purchases them. The consultant's pricing estimates describe a lighter truck used in the industry. SCL trucks are more specialized, therefore require a heavier truck than is generally used elsewhere in the industry. This is true for other heavy-duty trucks in Seattle such as fire trucks and vactors. Past maintenance history shows Seattle's geography demands we use heavy-duty trucks which cost more.
a) Best practice utility fleet = approximately \$115,000 - \$120,000 for medium-duty truck (about 33,000 GVW). Seattle = \$230,000 plus for same truck.	
b) Best practice utility fleet = approximately \$150,000 - \$170,000 for heavy-duty truck (about 54,000 GVW). Seattle = \$270,000 plus for same truck.	I/P. FSD will meet with SCL fleet management staff to discuss aerial rebuild procedures, life cycle analysis, and standardization after bid proposals are received. Standardization will be attempt to readdress the need to evaluate and purchase specialized trucks. ECD - December 2009.

Cost of Services Analysis

Recommendation	Status
<p>Tanker Service</p> <p>7 FSD charges 44 cents a gallon markup, but should be charging 70 cents a gallon to cover tanker amortization, maintenance expense, and labor costs.</p>	<p>Complete. Markup was changed to \$0.68 per gallon in 2009 to recover full cost of the tanker service.</p>
<p>Metal/Machine Shop Services</p> <p>8 Recommend FSD evaluate the cost effectiveness of servicing facility machinery.</p>	<p>I/P. Continuing to evaluate servicing facility machinery. Contract issues. Metal and Machine no longer provide other non-vehicle repair services to City departments. ECD - December 2009.</p>
<p>9 Recommend FSD compare the costs of selected work products such as brackets, tampers, and other items manufactured by the Metal/Machine Shop that can readily procured from outside automotive supply services.</p>	<p>I/P. FSD has defined core services provided by the Metal & Machine Shop. Analysis continues to now determine the most effective methods to deliver all types of capitalization work including whether to produce or purchase brackets, tampers, and other items produced by the shop. ECD - December 2009.</p>
<p>Capitalization Shop Services</p> <p>10 Vehicle upfitting costs should be compared to vehicles already upfitted by automotive dealers. In particular, the costs of outfitting patrol cars should be compared to what can be obtained by competitive bids.</p>	<p>I/P. FSD is evaluating aerial overhaul work first. The Capitalization Shop will compare the cost of outfitting patrol cars with the limited amount of vendors available who perform similar services. Analysis will consider upfitting costs and competitive level of service. ESD - 2010.</p>
<p>11 Recommend FSD management and supervisors use the tools provided by the consultant to evaluate if an in-house maintenance facility is near capacity to determine if a repair should be outsourced or accomplished in-house with normal or overtime labor.</p>	<p>I/P. Analysis is complete to determine in-house maintenance facility capacity. Staffing adjustments have been made accordingly. Performance measures are being established to follow consultant recommendations to outsource peak workload. ECD - December 2009.</p>

Cost of Services Analysis

Recommendation	Status
12 Recommend conducting investment analysis as required.	I/P. Following the consultant's recommendation regarding investment analysis. Ongoing.
13 Consider the decision to "outsource" following the report's guidance.	I/P. Following the consultant's recommendation regarding outsourcing. Ongoing.
14 Consider the decision to "insource" following the report's guidance.	I/P. Following the consultant's recommendation regarding insourcing. Ongoing.
15 Seattle's percentage M&R Costs to Non-target Costs (customer-driven decisions, accidents damage modifications, capitalization) is 73% to 27% (industry norm is 85% to 15%). (M)	I/P. Analysis conducted in the Metal & Machine Shop resulted in eliminating non-vehicle metal fabrication work. One FTE from the shop was subsequently reclassified. Processes will be put in place to conduct this type of analysis for all vehicle maintenance services. ECD - December 2009.
16 Seattle should conduct an analysis on the activities it performs in-house vs. outsource and consider shop productivity, peaks and valleys in workloads, support and tooling costs and avoidable overhead costs. (M)	I/P. Performance measure being established to outsource peak workload as per the consultant's recommendation. Estimate to send aerial overhaul work proposal to bid in October 2009. ECD - December 2009.
17 Develop a long-range fleet replacement plan and a financing mechanism to finance the timely replacement of fleet assets. (M)	Complete. Changes made in 2008 and incorporated in 2009. Fleet capital replacement fund is separate from fleet operating fund and a 20-year replacement plan has been established (exceeds consultant recommendations).
18 Develop a business plan that identifies the division's mission, objectives, and actions to be taken. (M)	I/P. Sample fleet business plans collected to use as a guide. Awaiting changes already I/P to complete before the closing loop and establishing a fleet business plan. Business plan ESD - 2010.
19 Consider developing an electronic manual (web-based desk reference) that explains business activities and provides consolidated policy guidance to customers. (M)	I/P. Development of a consolidated division Fleet Management Policy and Procedures Manual has started. Warehouse and Fuel Management procedures in rough draft. Vehicle maintenance, fleets administration, and facility management procedures to follow. Consolidated manual and service level agreements will be posted on FFD website. ECD - 2010.

Cost of Services Analysis

Recommendation	Status
20 Increase the amount of work outsourced to commercial vendors to 15%. (M)	I/P. Performance measures being established to outsource peak workload. 1st quarter 2009 results were 12.6% of total maintenance outsourced. ECD - December 2009.
21 Increase overtime to 4-5% of budget. (M)	I/P. 2008 overtime was 3.6%. A citywide directive to reduce OT was established in 2009.
22 Separate capital and operating costs/revenues to improve financial accountability. (M)	Complete. Changes made in 2008 and incorporated in 2009. Fleet capital replacement fund is separate from fleet operating fund.
23 Precisely quantify the amount of cash required to fund future vehicle replacements. The replacement plan should be 15 years. (M)	Complete. Exceeded consultant's recommendation. New lease rate model developed in 2008 establishes a 20-year plan.
24 Establish a separate accounting process for the reserve fund in order to provide customers with assurance that lease rates are appropriate and that revenue will be used exclusively for funding replacement of future vehicles. (M)	Complete. Fleet capital replacement fund separated from fleet operating fund. On demand, customers are provided history of capital expenditures, deposits, and cash balance.


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Customer Relations & Outreach

Recommendation	Status
<p>1 FSD should improve customer relations and outreach by periodically reporting to them performance data involving:</p> <ul style="list-style-type: none"> a) number of PMs scheduled and completed b) number of PMs no shows c) number and percent of work orders completed on time d) vehicle downtime report showing number of repairs completed within 24 hours, 24-48 hours, and > than 48 hours e) percentage of vehicles and equipment available f) number of road calls per month 	<p>I/P. The FleetAnywhere upgrade is complete. The Customer Service Module and web-based reports project are complete and operating. During 4th quarter 2009, training will be conducted with designated department staff to allow access to run reports. ECD - December 2009.</p>
<p>2 Summarize charges per cost center each month that distinguishes between:</p> <ul style="list-style-type: none"> a) FA fees b) maintenance and repair costs c) vehicle replacements d) fuel charges e) accidents f) capitalization charges 	<p>Complete. Monthly billing reports available to all departments and accessible online in FABRS.</p>
<p>3 Distribute newsletters to customers.</p>	<p>Complete. Green Fleet Monthly published citywide. Fleet Advisory Board (FAB) (policy body) meetings held quarterly and Fleet Coordinators' (operations body) meetings held bi-monthly.</p>
<p>4 Hold open house events with customers.</p>	<p>Not started. Under review.</p>
<p>5 Sponsor Customer Appreciation Days.</p>	<p>Not started. Under review.</p>
<p>6 Sponsor contests and recognition programs for vehicle operators that take best care of their equipment.</p>	<p>Not started. Under review.</p>

Customer Relations & Outreach

Recommendation	Status
13 Establish a Customer Awareness Program that is dedicated to education, communication, and understanding of the respective operation and needs of both the customers and FSD. Steps to take: a) educate FSD staff on customer department operations b) educate customers on FSD operations c) schedule regular meetings with large user departments	All items are covered either through regular FAB and Fleet Coordinator meetings (complete) or will be covered through future service level agreements or the FSD business plan (I/P). ECD for service level agreements for both is in 2010.
14 Develop web-based reports to provide customers management information regarding fleet operations. (M)	I/P. Web-based reports available after FA upgrade implemented and training held with designated department staff. ECD - December 2009.
15 Implement a service-based cost charge-back system for all customers to improve cost recognition and control. (M)	I/P. SPU (heavy-duty fleet) and SCL (entire fleet) are on service-based charge-back system. All departments billed maintenance is on service-based charge-back system. Analysis of lease maintenance billing, including citywide policy and fiscal issues, will occur in 2010.
16 Policies should be updated and posted on FSD's intranet web site.	I/P. SPU service level agreement posted to FFD website. All future agreements will be posted to web. Fleet Management Policy and Procedure Manual and future FSD business plan will be accessible electronically. ECD - 2010.
17 Develop Crystal reports from the Fleet Anywhere data base to provide Fleet Focus management information to customers. (M)	I/P. Crystal and web-based reports are available. Training scheduled for 4th quarter 2009 with designated department staff. ECD - December 2009.
18 Create a page on FSD's intranet web site to solicit anonymous comments from customers. (M)	Not started. Under review.
19 Invest in adhoc report writing solution and writing engine (Crystal Reports) and train staff. (M)	FSD and Finance & Administration staff training complete. Training for designated department staff I/P. ECD - December 2009.

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Customer Survey

Recommendation	Status
1 Customers seemed satisfied with technical competence of the FSD mechanic workforce.	Noted comment.
2 Customers are less satisfied with processes related to: a) billing accuracy and transparency b) providing spare or replacement vehicles c) vehicle budgeting process d) user friendliness of the fleet information system	<p>a) Billing reports are available to all department customers. Bills are reviewed and have been determined to be highly accurate. Complete.</p> <p>b) Vehicle loaner procedures have been reviewed. Clear procedures for vehicle replacement have been developed. Complete.</p> <p>c) Noted comment. Better communication utilized at FAB and Fleet Coordinator meetings. Service level agreements outline vehicle budgeting process.</p> <p>d) Noted comment. Additional training provided to customers' staff on FA, the city's fleet information system.</p>
3 Customers tend not to understand the system of how rates were developed.	Communicated thoroughly at FAB and Fleet Coordinator meetings (on-going). Service level agreements being developed outline the rate development system. (I/P). ECD - 2010.
4 Customers did not feel that rates were devoid of cross subsidization.	Complete. Customer departments have full access to fleet billing system. On demand, customers provided history of capital expenditures, deposits, and cash balance.
5 Overall, the most frequently cited area of dissatisfaction or needing improvement was communication by an overwhelming amount. In particular, much of this was focused on customer relations and communications between FSD management and the departments. Specifically: a) Communications need to be improved when changes are being considered after a mutual resolution of an issue has been agreed on between customer and FSD. b) Information should be shared on funds that each customer has available for replacement vehicles.	<p>a) Established FAB (quarterly) and Fleet Coordinator (bi-monthly) meetings. Service level agreements encourage mutual resolution of fleet issues (I/P). ECD - 2010.</p> <p>b) Complete. Information available on demand.</p>

Customer Survey

Recommendation	Status
c) While the technical staff is competent, it was felt by some customers that the administrative staff was less cognizant of the division's needs and providing timely assistance.	c) Noted comment. Weekly Staff Reports issued to all FSD staff. Bi-weekly Fleets Leadership Team meetings held to exchange information. Bi-weekly 1:1 meetings with unit leadership staff and FSD Director held. All units now hold regular staff meetings to share information.
d) Information on when vehicles are available for pickup needs to be communicated more consistently.	d) Nightly "Garage Reports" are produced and emailed to customers at end of the night shift. Administrative staff calls customers to tell them when their vehicle is ready for pickup. Complete.
e) Lines of authority between the FSD Director and middle managers need to be made clearer.	e) Noted comment. Weekly Staff Reports issued to all FSD staff. Bi-weekly Fleets Leadership Team meetings held to exchange information. Bi-weekly 1:1 meetings with unit leadership staff and FSD Director held.
6 Other areas customers noted:	
a) Provide more operator training on the basic preventive maintenance steps that the operator should be doing on a daily basis.	a) Process improvement team of SPU and Fleets personnel accomplished this on vector trucks. Developed agreed operator maintenance checklist. I/P. Service level agreements address operator and training responsibilities regarding daily maintenance. ECD - 2010.
b) Provide timelier accuracy of fleet inventory listings at the lower org level.	b) Complete. Billing information available to all departments on demand.
c) Have better understanding of customer department priorities in vehicle servicing.	c) I/P. Administrative staff scheduling PMs and closely working with customers to optimize schedule. On-going.
d) Improve availability for fuel keys for new cars. Provide at least three sets of keys.	d) Not started. Under review.
e) Be more proactive in bringing in outside work as an overhead offset.	e) Under analysis. See previous comments regarding outsourcing peak workload.
f) Consolidate the radio technicians, installers, and handling facility into the Capitalization shop.	f) Will not do. Radio installation staff works for DoIT. Will work with DoIT to more effectively and efficiently schedule and complete work.


Indicates item appeared on both Chatham and Mercury Reports.

Employee Education & Incentives

Recommendation	Status
<p>1 Establish a mechanic and incentive program, whereby future compensation is tied in with certification. Consider the Institute of Automotive Service Excellence (ASE) has a sequence of testing and progression that we recommend. The goal is to empower employees to determine their salaries while while improving skill levels, morale and professionalism in their shops, but also to retain qualified existing staff and recruit new personnel.</p>	<p>Established premium pay (\$0.90 per hour) for mechanics who work on heavy-duty vehicles and fire apparatus to improve morale and retain qualified existing staff and recruit new personnel.</p> <p>Conducted ASE- based competency assessment on all technicians to determine existing skill level to target specific training needs. Increased technical training to 40 hours per employee to improve skill levels, morale, and professionalism in division. Complete.</p>
<p>2 In addition to ASE tests there are other recognized industry standards that can also be required such as hydraulic, refrigeration, EMT, or other industry or manufacturer certifications.</p>	<p>Refrigerant recovery and emissions testing certifications have been obtained. Fire Garage staff encouraged and provided assistance in obtaining Emergency Vehicle Technician certification.</p> <p>Warehouse staff encouraged and provided assistance in obtaining Parts Specialist certification.</p> <p>Aerial device inspection training under way to meet requirements of new Washington State laws that go into effect in January 2010. On-going.</p>
<p>3 Individual functions within FSD may elect certain series of certifications relevant to their particular needs, but should at a minimum require basic entry level competence or certification completion.</p>	<p>Complete. The division tests for basic competencies during recruitment screening.</p>
<p>4 Recommend the City of Seattle provide two to four weeks of formalized technician training per year.</p>	<p>The 2009 budget provides for 40 hours of technical training per technician. I/P.</p>

Employee Education & Incentives

Recommendation	Status
5 Suggest a pay increase of \$0.25 for the obtaining each set (Automobile and Light Truck, Medium and Heavy -Duty Truck, etc) of ASE certifications.	In lieu of the recommendation, the City established a \$0.90 per hour premium pay for heavy-duty mechanics and increased training requirements to 40 hours per mechanic per year. Complete.

 Indicates item appeared on both Chatham and Mercury Reports.

Facilities Assessment

Recommendation	Status
<p>1 There appears to be capacity defects at the Fire Shop, SeaPark, and SSC facilities. Capacity can be added by:</p> <p>a) shifting some of the workload from one facility to another (see below)</p> <p>b) adding a work shift to the Fire Shop</p> <p>c) reallocating existing space (see below)</p>	<p>a) One FTE of work at fire stations by a mechanic shifted to mobile service truck. Fire Department staff and command vehicles transferred to Car Shop to smooth out workload.</p> <p>b) Noted comment. No resources to add a second shift. Future consideration.</p> <p>c) Reallocating existing space would result in inefficiencies. No changes expected.</p>
<p>2 Add additional resources including:</p> <p>a) a heavy-duty lift to the Cedar Falls shop</p> <p>b) greater access computers for mechanics</p> <p>c) up-to-date scanning tools for diagnosis</p> <p>d) up-to-date subscriptions for on-line service manuals</p> <p>e) improve lighting in the Fire Garage</p> <p>f) sun screen shades for the west side of the Charles Street Shop</p> <p>g) security fencing for the Haller Lake shop</p>	<p>a) Complete.</p> <p>b) Phase One (establish wireless at Charles Street facilities) complete. Researching computer support configurations. No computer funding plan identified. ECD - December 2009.</p> <p>c) I/P. Toyota Techstream budgeted for 2009. New diagnostic tools in 2009 and 2010 budget.</p> <p>d) Complete. Service manuals on-line and accessible by mechanics.</p> <p>e) Lighting updated in 2005.</p> <p>f) No current funding available. Future consideration.</p> <p>g) I/P. Improved complex lighting and automatic gates are being installed. ECD - December 2009</p>
<p>3 Develop a long-term strategic facility planning process (Master Plan).</p>	<p>f) No current funding available. Researching capability to develop facility Master Plan in-house. ESD - 2010.</p>
<p>4 Some areas require better housekeeping such as the Fire Garage Shop, Charles Street Truck Shop, and Watershed Shops.</p>	<p>Complete. Tool cabinets purchased and deployed. Shop offices replaced at Charles Street. Conducting more thorough cleanliness and housekeeping inspections during Monthly Shop Inspections.</p>
<p>5 Some roll-around oil barrels had no containment.</p>	<p>I/P. Non-containment barrels have been identified. Researching proper containment. ECD - December 2009.</p>

Facilities Assessment

Recommendation	Status
6 Repair activity is increasing at Cedar Falls Shop and decreasing at Tolt River Shop (reallocate facility resources).	I/P. Participating in Cedar Falls and Tolt River shops redevelopment with SPU. Under review.
7 It appears there is more activity in the auto body shop than welding bays. Consider expanding the body shop preparation area into one bay presently being devoted to welding.	No current funding available. Future consideration.
8 More computers should be added to shops to allow mechanics to directly input work order data and to access service and maintenance information.	I/P. Phase One (establish wireless at Charles Street facilities) complete. Researching computer configurations. No computer funding plan identified. ECD - December 2009.
9 Machine tools are taking up valuable space at Haller Lake, when there is a complete machine shop at the Charles Street Shop. The same goes for the Fire Shop.	I/P. Assessment of space and equipment needs at all sites ongoing.
10 Shop hoist equipment exceeds 20-year guidelines (8 total).	Complete. Project in design for replacement of hoists in Fire Garage and Truck Shop. Remove one out-of-date hoist in Car Shop. I/P. ECD - January 2010.
11 Review specific proposals for Charles Street Truck Shop to add workspace and improve productivity by moving special tools out of the storage room and to the bays where they are used (see Detailed Inspection Results).	Complete. Purchased cabinets and relocated tools from storage room to shop floor.

Facilities Assessment

Recommendation	Status
12 Fire Shop usable space can be gained by cleaning and organizing the space to the South and West of the shop office. Part of this space is presently being used for storage.	I/P. Area is work space for wheelchair bound mechanic to repair small equipment and vehicle components. Following his June 2009 retirement, a space needs assessment will be conducted to determine the best use of the space. ECD of evaluation - December 2009.
13 Vehicle traffic flow can be improved at the SSC Shop (see Detailed Inspection Results).	Complete. Relocated obstructions blocking eastside door to improve traffic flow.
14 Work flow efficiencies can be gained at Haller Lake by re-arranging and adding resources. Bench space can be freed up by relocating five air hose reels.	I/P. Cabinets for tools relocated to shop bays from storage room. Investigating alternatives to relocate hose reels. ECD - December 2009.
15 There is a problem with not being able to secure the Haller Lake shop in the evenings and weekends (see Detailed Inspection Results).	I/P. Identified a CCTV system as the best alternative to solving security issue. No funds available in 2009. Defer to 2010.
16 The Fire Shop, two bays of the Charles Street Truck Shop, and Watershed Shops had residual oil on the bay floors.	Complete. Cleaned up residual oil on floor. Conducting more thorough cleanliness and housekeeping inspections during Monthly Shop Safety Inspections.
17 The low mount electrical cord reels in the Fire Shop allow cords to lie on the floor.	Analysis reveals this is the safest option for this shop. Overhead reels can not be used because of interference from the overhead crane. Complete.
18 Review Prioritization and Cost Considerations for shop improvements.	Noted comment. Items to review are listed above.
19 Conduct a Space Needs Assessment to include a time & distance analysis.	Not started. ESD - 2010.

Indicates item appeared on both Chatham and Mercury Reports.

Mechanic Survey

Recommendation	Status
1 Seattle mechanics had lower satisfaction levels with their compensation and benefits than mechanics of other government fleets.	Increased compensation for mechanics \$0.90 per hour (complete). New contract ratified by Union that increases COLA.
2 Lowest scores for mechanics: a) pay b) parts availability c) opportunity for advancement d) having enough qualified people in their area to do the work	<p>a) Complete. See answer for #1.</p> <p>b) I/P. Warehouse Policies & Procedures being written to improve performance. ECD - December 2009.</p> <p>c) I/P. Increased technical and management training to provide better advancement opportunity. Ongoing.</p> <p>d) Complete. MRU analysis done and additional mechanics hired. Fully staffed.</p>
3 Areas mechanics would improve: a) facilities & equipment 1) better diagnostic tools for new equip. 2) improved hoists lighting, floor equipment 3) more work space, less congestion b) parts management 1) increase attention to stocking common serviceable items 2) better inventory control - stock more common parts and less obsolete parts 3) reduce time for parts procurement c) pay & benefits 1) mechanic positions reclassified based on job skills required 2) more attractive pay and benefits.	<p>a.1) I/P. Toyota Techstream budgeted for 2009. New diagnostic tools in 2009 and 2010 budget.</p> <p>a.2) Complete. Project in design for replacement of hoists in Fire Garage and Truck Shop.</p> <p>Remove one out-of-date hoist in Car Shop. I/P. ECD - Jan. 2010. Purchased floor scrubber.</p> <p>a.3) I/P. Conducting Space Needs Assessment. ECD - December 2009. Eliminated performing work on vehicles from non-City agencies.</p> <p>b.1) Conducted review and reduced non-moving stock. New Warehouse Policies and Procedures provide procedures to identify and stock high usage common items. I/P. ECD - Dec. 2009.</p> <p>b.2) I/P. See answer for b.1). ECD - December 2009.</p> <p>b.3) I/P. See answer for b.2). ECD - December 2009.</p> <p>c.1) Compensation increased for heavy-duty mechanics.</p> <p>c.2) Complete. Increased mechanic pay \$0.90 an hour to work on heavy-duty vehicles.</p>
4 When rating their current job, mechanics felt slightly below average that their ideas are adopted and/or have the authority about how to do their job.	Ongoing. Bi-weekly supervisors and uper management meetings held to improve communication and solicit supervisor input. FSD Director emails Weekly Staff Reports to all FSD employees to openly communicate what is happening at all levels of the division.

Mechanic Survey

Recommendation	Status
<p>5 Other areas mechanics made suggestions for improvement include:</p> <ul style="list-style-type: none"> a) more factory-based technical training b) improved listening skills for supervisors c) more open communication from management to employees d) more qualified technicians e) standardize the fleet to reduce the number of different makes and models f) standardize vehicle outfitting packages g) rearrange the order of checklist items on the PM services to be more in tune with the actual order of items performed in order to establish a smoother routine h) place burden on the customers to either bring in their vehicle for servicing or contact the shop regarding its location i) eliminate redundant paperwork j) increase tool allowance k) introduce incentive pay, wages, and compensation for certifications l) up-to-date subscriptions to manufacturers' on-line service manuals m) improved management skills for managers n) increase shop staff o) empowerment of front-line supervision p) improved communication between front-line supervisors and management 	<ul style="list-style-type: none"> a) Complete. Increased technical training to 40 hours per year per employee. 199 employee-days of technical training completed during Jan-May 2009. b) Complete. Opening the lines of communication and sharing information is expected to make improvements in this area. Related to answer for #4. c) Complete. Example - Weekly Staff Report distributed to all personnel. See answer for #4. d) Complete. Five new mechanics hired as per the consultant's recommendation. e) and f) are I/P. Fleets Administration staff have teamed with the Green Fleet Coordinator to standardize fleet vehicles and truck new purchases. Standardization has been stressed at FAB and Fleet Coordinator meetings. Ongoing. g) Complete. h) I/P. Working with customers to shift the burden on them to bring in their vehicles for service. On-going. i) I/P. Implementing reporting module and computers to reduce paperwork. ECD - Dec. 2009. j) Complete. Union negotiated to increase tool allowance during contract talks. k) Complete. In lieu of pay for certifications, the City now pays a \$0.90 per hour premium to mechanics who work on heavy-duty vehicles and fire apparatus. l) Complete. m) All division managers and the director received citywide mandated management training. All supervisors, crew chiefs, and senior mechanics completed fleet management training in June. n) Complete. Five new mechanics hired as per the consultant's recommendation. o) Noted comment. p) Complete. See answers for 5.b) and 5.c).

Indicates item appeared on both Chatham and Mercury Reports.

MRU & Workload Analysis

Recommendation	Status
<p>4 Capacity increases available by shop: a) Car & Truck Shop - 13% b) Haller Lake - 27% c) Tire Shop - 36% d) Watershed Facilities - 34% (capacity = numbers of available shifts, vehicles assigned, and bays available)</p>	<p>a) Work redistributed from the Fire Garage and SeaPark to reduce excess capacity.</p> <p>b) Under review.</p> <p>c) Under review.</p> <p>d) Restricted in options due to the remoteness of Watershed Facilities. Under review.</p>
<p>5 Facilities over capacity: a) Fire Garage - 174% b) SeaPark - 73% c) SSC - 2% (capacity = numbers of available shifts, vehicles assigned, and bays available)</p>	<p>a) Redistributed work from the Fire Garage to the Car Shop. Created mobile truck service to conduct work at fire stations instead of Fire Garage. Complete</p> <p>b) Redistributed work from the SeaPark Garage to the Car Shop. Complete</p> <p>c) Noted comment.</p>
<p>6 Capacity can be added without constructing new facilities by shifting some of the workload from one facility to another, adding a work shift to the Fire Garage, or freeing up some area in the Fire Garage as described in the Facilities Assesment.</p>	<p>See answer for #5a) and b) regarding shifting workload. Additionally, assigned one Fire Garage mechanic to operate from a mobile service truck and work at fire stations. No resources available to start second shift at the Fire Garage. Space need assessment scheduled in 2009. (see answer for #12, Facilities Assessment).</p>
<p>7 Reconsider the 1,500 hours per year used to estimate mechanic requirements and consider using 65-70 percent (1,357 - 1,462 hours).</p>	<p>Complete. Established 1,407 as the budgeted billable hours benchmark per mechanic for 2009.</p>
<p>8 The main cause of equipment downtime (2004) in the Watershed area is because there is not enough mechanics to meet work load demands. (M)</p>	<p>Complete. Mechanics added seasonally based on demand. Long absences throughout the year are covered with other shop mechanics.</p>

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Performance Analysis

Recommendation	Status
<p>1 Seattle does not compare favorably with comparables in the areas of downtime and and the proportion of work being scheduled. This indicates:</p> <p>a) More attention is needed in completing PMs on time.</p> <p>b) There is not sufficient staff to do PMs.</p>	<p>a) I/P. Recalculated PM completion percentage. Implemented new process to schedule and complete PMs on time. Steady month-to-month progress noted. Established performance measure to complete all PMs the month they become due. ECD to achieve performance measure - December 2009.</p> <p>b) Complete. Five mechanics hired in 2009 as per consultant recommendation. Fully staffed.</p>
<p>2 Seattle aerial trucks, some cranes, and construction equipment are generally older than comparable and take longer to repair and maintain. Conduct life cycle analysis.</p>	<p>I/P. See answer for Cost of Services Analysis #2 - #6. Additionally, FSD conducted life cycle analysis in 2008 on all FSD-leased vehicles and equipment and worked with SPU (utility) to conduct analysis on SPU-owned vehicles and equipment.</p>
<p>3 Economic, reliable vehicle, and equipment performance cannot exist in a culture that allows individual users to select equipment based on the opinion of individual needs. Standardization must take place at four levels:</p> <p>a) vehicle configuration</p> <p>b) vehicle make</p> <p>c) component configuration</p> <p>d) component make</p>	<p>I/P. See answers for Mechanic Survey 5e) and 5f) and Cost of Services Analysis #6.</p>
<p>4 FSD should consider adopting these key performance measures and goals:</p> <p>a) Fully Burdened Labor Rate. <i>Target:</i> local vendor labor rates typical for vehicle class involved.</p> <p>b) Turn around Time. <i>Targets:</i> less than 24 hours (70 %), 24-48 hours (20%), >48 hours <10%. By vehicle/shop/FSD.</p>	<p>a) Complete. Accomplished during 2009 budget process. Labor rate established to recover full cost of services provided and remains competitive with local Seattle vendors that provide the services.</p> <p>b) I/P. Working to implement best practice benchmarks consistent with customers' specific needs. ECD - December 2009.</p>

Performance Analysis

Recommendation	Status
<p>c) Preventive vs. Corrective Repairs, Scheduled vs. Unscheduled Work. Target: Scheduled Work 50-70% of total work, Preventive Maintenance 50% of total work, Corrective Repairs 30-40% of total work.</p>	<p>c) I/P. Working to implement best practice benchmarks consistent with customers' specific needs. ECD - December 2009.</p>
<p>d) Repeat Work. Target: <2.5%. e) Downtime and Breakdowns. Target: downtime overall <6%. construction equipment 3-5%, admin. vehicles and trucks 1-2%, medium/heavy trucks 2-4%, specialized equipment 6-8%, law enforcement (marked) 2-3%, law enforcement (unmarked) 1-3%.</p>	<p>d) I/P. Working to implement best practice benchmarks consistent with customers' specific needs. ECD - December 2009. e) I/P. Working to implement best practice benchmarks consistent with customers' specific needs. ECD - December 2009.</p>
<p>f) Mechanic Utilization. Target: 65-70% g) Preventive Maintenance. Target: PM inspections 95%, Emission inspections 100%.</p>	<p>f) Achieved 71% during Jan-Apr 2009. On-going performance measure. I/P. g) I/P. Performance measure established exceeds consultant's recommendation. ECD to achieve performance measure - December 2009.</p>
<p>h) Inventory Turnover Ratio. Target: 4 to 5.</p>	<p>h) I/P. Incorporated in Warehouse Policies and Procedures. ECD - December 2009.</p>
<p>5 Track and plot periodically (weekly, monthly, or annually) data to spot changes in performance levels. Specifically: Maintenance Management a) amount of backlog work b) average repair length c) downtime due to parts unavailability d) fleet availability e) fully burdened labor rate by shop f) maintenance cost by vehicle class g) maintenance CPM h) miles between road calls i) number of PM no shows j) number of vehicles awaiting parts</p>	<p>a) Under review. b) I/P. Working to implement best practice benchmarks consistent with customers' specific needs. ECD - December 2009. c) I/P. Working to implement best practice benchmarks consistent with customers' specific needs. ECD - December 2009. d) I/P. Working to implement best practice benchmarks consistent with customers' specific needs. ECD - December 2009. e) Complete. Calculated annually. f) Under review. g) Complete. Calculated annually. h) Under review. i) I/P. Working to implement best practice benchmarks consistent with customers' specific needs. ECD - December 2009. j) Under review.</p>

Performance Analysis


Recommendation	Status
k) out of service ratio	k) Under review.
l) summary listings of vehicles remaining out of service	l) Complete. Reported weekly for vehicles held over five days.
Fleet Usage and Size	
a) maintenance cost per mile	a) Complete.
b) engine hours per vehicle	b) Under review.
c) employees per vehicle	c) Under review.
Fuel Economy	
a) fuel cost per mile	a) Complete.
b) fleet-wide miles per gallon	b) Under review.
Other	
a) upfitting cycle times	a) Under review.
b) average fleet age	b) Complete.
c) procurement cycle times	c) Under review.
d) percent of fleet beyond replacement age/ mileage guideline	d) Complete. Tracked annually.
6 Each shop should complete a quarterly profit and loss statement indicating:	Profit and Loss Statement completed for 2008.
a) Revenues - amount of work earned or billed by the mechanics during a month and parts charged to customers.	a) Not started. ESD to develop report - 2010.
b) Cost of Goods Sold (parts) should be subtracted to yield Gross Margin.	b) Not started. ESD to develop report - 2010.
c) Compare COGS to total operating expenses such as labor, rent, utilities, and other garage overheads to determine if a garage has been profitable or mechanics fully utilized.	c) Not started. ESD to develop report - 2010.
7 Consider implementing performance indicators with maintenance performed by outside contractors.	I/P. Collecting data on turn-around time and cost. ECD - December 2009.

Performance Analysis

Recommendation	Status
8 Performance reports should be aggregated for each shop and the division as a whole to facilitate trending through time.	Not started. ESD - 2010.
9 Share the results of Number 2 with City Light so that they can reevaluate their vehicle replacement and funding practices. Emphasis that aged units adversely affect not only FSD's mechanic productivity, but also City Light's cost of maintenance, repair, and downtime.	Complete.
10 Additional Performance Measures and staff performance goals are recommended: a) percentage of fleet due for replacement b) percentage of M&R Costs outsourced c) parts markup d) fuel markup e) sublet markup f) parts demand fill rate g) establish billable hours goals for staff h) track repair times in real times (M)	 a) Complete. Calculated annually. b) Complete. Calculated annually. c) Complete. Calculated annually. d) Complete. Calculated annually. e) Complete. Calculated annually. f) Not started. ESD - 2010. g) Complete. Calculated annually. h) Not started. ESD - 2010.
11 Establish time standards for common repair tasks and track performance on a weekly basis. (M)	Not started. ESD - 2010.
12 Recommend manufacturers' service recommendations and custom tasks be included in separately styled and written PM checklists with different PMs based on mileage or usage. (M)	Complete.

Performance Analysis

Recommendation	Status
13 Track missed PMS. Advise through written notice missed PMS.	Complete.
14 Develop a system to "flag" vehicles scheduled for disposal, overdue PMS, or warranty. (M)	Complete.


 Indicates item appeared on both Chatham and Mercury Reports.
 (M) Indicates item appeared on Mercury Report only.

Rate Setting & Replacement Fund

Recommendation	Status
1 Adopt activity-based concepts in estimating future charge back rates.	Under review.
2 Rates should recover full costs (direct, indirect, overhead).	Complete.
3 Maintenance rates should not be used to lower cash reserves in the Fleet sub fund account.	Complete.
4 Org. accounts should be used to establish separate "funds" for capital and operating costs.	Complete.
5 The capital "funds" should be divided among major department and consolidated smaller departments.	Complete.
6 An annual status report should be provided to fleet customers on the amount of revenues collected, expenditures made, and reserves on hand in their respective accounts.	I/P. Information shared with departments in 2009. Developing annual report to provide information to customer departments each year. ECD - December 2009.
7 FSD should adopt a vehicle replacement program similar to the VERP program described in this report. This model computes the annual replacement charges by vehicle by department.	Complete. Rate model developed in 2008 using a 20-year forecast. Exceeds consultant's recommendation.
8 The planning horizon to compute replacement rates should be extended to ten years from the current five years (fire trucks 15 years).	Complete. Rate model developed in 2008 using a 20-year forecast. Exceeds consultants' recommendation.

Rate Setting & Replacement Fund

Recommendation	Status
9 The existing methodologies for computing charge-backs are quite complex and not clearly understood by the customer base.	Rate model simplified during 2009 budget process.
10 Replacement funds are co-mingled with operating funds making it difficult to easily determine how much money is actually available to meet future replacement needs.	Complete. Incorporated in 2009 budget. Replacement funds and operating funds are separate.
11 Existing rates are under recovering current fleet maintenance expenses, and may be under recovering projected capital requirements.	Complete. Incorporated in 2009 budget. Costs of services are fully recovered.
12 The percentage of units exceeding replacement criteria (in 2005) is higher than the <10% benchmark (18%). (M)	Backlog is being eliminated. All vehicles due for replacement are on the 2009 workplan including backlog. Calculate percentage at end of 2009. I/P.
13 Mercury recommends a 15-year replacement plan to identify funding requirements and deal with spikes. (Chatham recommends 10-year plan).	Complete. Rate model developed in 2008 using a 20-year forecast. Exceeds consultant's recommendation.
14 Explore the benefits of financing vehicle purchases with a sinking fund or low interest loans to improve vehicle replacement timing.	Under review.
15 Expand the use of electronic manuals and on-line information resources.	I/P. Fleets Administration policies and procedures are being developed and will be posted on-line in an electronic manual format. ECD - December 2009.
16 Implement charge-back rates that reflect the actual costs of providing the various goods and services provided by FSD.	Complete. 2009 budget reflects recovering full cost of providing goods and service. Charge-back billing not fully implemented, but full cost of providing goods and services are being recovered. Reviewing implementation of full charge-back system in 2010.

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(M) Indicates item appeared on Mercury Report only.

Supervisor & Crew Chief Survey

Recommendation	Status
<p>1 Supervisors rated the Warehouse between poor and average on how well the Warehouse adds parts to inventory for new in-service equipment and controls of inventory to reduce stock out of parts.</p>	<p>I/P. Developing procedures to add parts to inventory for new equipment and to control inventory in order to reduce stock out of parts. ECD - December 2009.</p>
<p>2 While all indicated they (sups. & crew chiefs) had a good understanding of their customers' expectations, nearly all also indicated that there were barriers to effective communication with customers. Some examples include:</p> <p>a) On some occasions customers send complaints to management instead of shop supervisors.</p> <p>b) Communications are poor between day and night workers.</p> <p>c) Customers believe their equipment is a #1 priority and the shop has unlimited manpower to drop whatever they are doing to address their problems.</p> <p>d) Customers are not familiar with or not aware what procedures they should follow when requesting additional accessories.</p> <p>e) Some fleet coordinators are very non-responsive to our requests on equipment builds, damage repairs, and special maintenance requests.</p> <p>f) The crew chiefs for other departments are moved so frequently that it is hard to keep track of who is in charge of the equipment.</p> <p>g) There has been frequent mention of service level agreements, but none generated.</p>	<p>a) Complete. Bi-weekly supervisor meetings implemented to improve communication.</p> <p>b) Complete. Shop supervisor shift overlap established in most shops to improve turnover communications.</p> <p>c) I/P. Service level agreements define customer and FSD's roles. Service level agreement with SPU complete. Parks is in draft. ECD - 2010.</p> <p>d) I/P. Addressed in service level agreements. ECD - 2010. Communicated in FAB and Fleet Coordinator meetings (complete).</p> <p>e) Ongoing. Working through coordination issues at bi-monthly Fleet Coordinator meetings.</p> <p>f) I/P. Data system access to FA is being given to customer department staffs to enter vehicle personnel assignments. ECD - December 2009.</p> <p>g) I/P. Service level agreements define customer and the FSD roles. Service level agreement with SPU is complete. Parks service level agreement is in draft. ECD - 2010.</p>

Supervisor & Crew Chief Survey

Recommendation	Status
<p>3 While most supervisors indicated that the fleet information system provided them with the proper information to manage their operation and work load, they cited improvement was needed in the consistency, accuracy, and timeliness of data.</p>	<p>I/P. Timeliness issue revolves around project to add more computers to shops. Charles Street wireless project complete. Researching computers and associated hardware for shops and warehouse. On-going.</p>
<p>4 While all respondents stated they used "performance measures" to manage and monitor the performance of their shop operation, most of the measures are qualitative in nature and may vary by supervisor. Performance measures include:</p> <ul style="list-style-type: none"> a) comparisons of flat rate to vendor pricing b) annual employee evaluations c) quarterly evaluations for new employees d) weekly check of PMs due list e) down/up time percentage monitored 6 mos. f) review of completed work and work order plan 	<p>Noted comment.</p>
<p>5 60% thought there were areas where work standards could be used to plan and evaluate shop performance. They include:</p> <ul style="list-style-type: none"> a) benchmarks for labor hours on similar jobs b) scheduled PM service c) labor charges or rates from other cities or tire shops d) customer satisfaction surveys e) downtime % by shop/department/vehicle type 	<ul style="list-style-type: none"> a) Under review. b) Complete. Method to compute PM completion % recalculated and incorporated at all shops. c) Complete. FSD compared favorably to similar Washington cities in 2009 and commercial providers (Seattle local) in 2008 and 2009. d) Regular satisfaction surveys conducted to evaluate vehicle maintenance. Citywide survey conducted in 2007. Surveys listed in service level agreements (I/P). ECD - 2010. e) Under review.

Supervisor & Crew Chief Survey


Recommendation	Status
<p>6 Most supervisors responded that they could forecast as far as needed for preventive maintenance services and capitalization work, but only day-to-day for repair work because of:</p> <ul style="list-style-type: none"> a) unpredictable breakdowns b) employee absentees c) short crew d) unscheduled work or constant heavy workload e) One solution: get more loaner vehicles to allow customers to bring in their vehicles for service. No spare equipment. 	<p>a) I/P. Improvements made in the PM program are expected to address concerns. ECD - December 2009.</p> <p>b) Hired five mechanics as per consultant recommendations expected to mitigate absences.</p> <p>c) See answer for b).</p> <p>d) See answers for a) through c).</p> <p>e) I/P. Through communication, service level agreements, and department cooperation we are convincing customers to deliver their own vehicles to the shops for service and repair and to handle their short-term transportation needs within their fleet. On-going.</p>
<p>7 82% reported that they periodically compared the costs of their operations to those available from an outside commercial supplier. Respondents also noted:</p> <ul style="list-style-type: none"> a) Many repairs experience cost creep. b) The quality of outside repairs is inadequate compared to in-house repairs. c) Some supervisors compare costs of their operations and some do not. 	<p>Will embark on vendor contract review to ensure vendors provide services that meet established FSD standards and are within the financial constraints listed in the contract. ESD for review - 2010.</p>
<p>8 60% yes and 40% no - on whether staff received the proper amount of training. Respondents also noted:</p> <ul style="list-style-type: none"> a) A larger tool budget may be needed. b) Factory versus generic training is needed. c) On-going refresher training in Hazmat for tanker operations is needed. d) More supervisor and HR training is needed. e) More heavy equip. engine and running gear diagnosis and repair training is needed. 	<p>a) Tool evaluation complete. Tool acquisition complete.</p> <p>b) Increased training training to 40 hours per employee per year. Complete</p> <p>c) Spill containment/Hazmat equipment on board tankers. Tanker operators trained to properly respond in all respects in the event of a tanker fuel spill. Complete.</p> <p>d) Complete. All supervisors and crew chiefs attended fleet management training in June 2009.</p> <p>e) Complete. Cummins and International engine diagnostic training performed in 2009. Additional training completed in 2009.</p>

Supervisor & Crew Chief Survey

Recommendation	Status
f) More training is needed on laptops and scan tools to diagnose repair needs.	f) I/P. On-going.
<p>9 50% believed mechanic certification would be beneficial to their organization. This tepid reaction seems due to the belief that certification also needs to be tied into pay increases for achieving certification. Certification benefits suggested include:</p> <ul style="list-style-type: none"> a) training tool b) increase in general competence c) keeps skills up-to-date d) gives organization certain clout e) justifies better wages to retain quality staff f) promotes pride in work quality 	<p>Established premium pay for work on heavy vehicles and fire apparatus. Conducted ASE-based competencies assessment on all technicians. Results will be used to target technical training. City pays cost of ASE tests and provides study materials. These changes are expected to accomplish what certifications listed in 8a) through f) would achieve.</p>
<p>10 82% of supervisors believed they need more mechanics for their respective shops. Collectively, the total needed is between 9-11. Supervisor estimates of shortages include:</p> <ul style="list-style-type: none"> a) Capitalization Shop - 1 b) Car Shop - 1 to 2 c) Haller Lake - 1 d) Metal/Machine Shop - 2 e) Paint & Body Shop - 1 to 2 f) Tire Shop - 1 g) Truck Shop - 2 	<p>The consultant's analysis indicated 4-5 mechanics needed to be hired to properly staff FSD. Complete. Five were hired in 2009. Additionally, three apprentices were hired in 2007 to prepare for succession planning due to the high number of staff that are retirement eligible. Three additional apprentices have been approved for hire in 2009.</p>
<p>11 Respondents expressed concerns in:</p> <ul style="list-style-type: none"> a) hiring process takes months or longer b) steady flow of breakdown work c) days or weeks of delays in starting jobs due to a shortage of personnel 	<ul style="list-style-type: none"> a) Complete. Established roster of qualified automotive mechanic recruits in advance of need. b) See answer for #6. c) See answer for #6.

Supervisor & Crew Chief Survey

Recommendation	Status
12 Supervisors (90%) unanimously believe that the proper amount of standardization does not exist for the City fleet. Supervisors noted the benefits of standardization include: a) less training time needed for mechanics b) improved parts availability from warehouse c) less diagnostic tools and software needed d) increased proficiency in repairs e) less vehicle downtime	See answers for Mechanic Survey 5e) and 5f) and Cost of Services Analysis answer for #6.
13 Seattle offers too many choices to customers and causes excess money in parts inventory, training, tools, and down time. There is a lack of standardization on pickups, trailers, and some heavy equipment (11 different manufacturers of fire apparatus).	See answers for Mechanic Survey 5e) and 5f) and Cost of Services Analysis answer for #6.

 Indicates item appeared on both Chatham and Mercury Reports.

Warehousing Operations

Recommendation	Status
1 Develop and use the ABC analysis technique to stock items to segregate low-moving parts so a true inventory rate can be identified.	I/P. ECD - December 2009.
2 Begin kitting parts for preventive maintenance and other work where it is feasible.	I/P. Crown Victorias have started kitting. Must solicit input from Vehicle Maintenance staff on other vehicles and equipment to kit. ECD - December 2009.
3 Review existing inventory to ensure that the correct parts and quantities are being stocked to increase the turns per year and reduce the total inventory on hand.	I/P. Reduced \$182,000 of non-moving inventory in 2008. Implementing a yearly task to review non-moving inventory. ECD - December 2009.
4 Identify parts that are needed for preventive maintenance and a timeline for adding parts to stock.	I/P. Soliciting input from Vehicle Maintenance staff on vehicles and equipment to target. ECD - December 2009.
5 Plan PMs and other definable work in advance and give the schedule to Warehousing for kitting.	I/P. Soliciting input from Vehicle Maintenance staff on vehicles and equipment to target and coordinate efforts. ECD - December 2009.
6 Collect additional data for performance measures such as inventory accuracy rate, inventory variance rate, inventory turnover rate, and stock out rate.	I/P. Will implement after Warehouse policies and procedures have been approved and training on the policies, procedures, and FA software system is complete. ECD - December 2009.
7 Identify parts for stock at the time of vehicle delivery. This should include items immediately needed and items for PMs.	I/P. Soliciting input from Vehicle Maintenance staff on vehicles and equipment to target. ECD - December 2009.
8 Make the Help screens for FA available while in the system.	Complete.

Warehousing Operations

Recommendation	Status
9 Have Warehouse workers take the ASE Parts specialist's series to improve their knowledge of parts to compliment their knowledge of Warehousing operations.	I/P. Manuals and training aids procured. Encouraging and assisting staff to complete certification. One warehouse worker has passed the first module, another has signed up to take the first module. ECD - December 2009.
10 Clarify the duties and reporting structure for fuels control personnel.	Complete.
11 Conduct a study to determine the number and sizes of tires and wheels to be stored by the City. Note: It may be possible to cost-effectively reduce tire inventory in the Tire Shop to a level that would provide tires for immediate use and rely on inventory maintained at tire suppliers.	I/P. Preliminary research regarding number of tires on hand, usage history, criticality of vehicles with tires in stock, availability, and lead time has been gathered. Analyzing the most efficient and cost-effective methods to stock tire inventory and deliver services. Several tire lines have been eliminated. ECD - December 2009.
12 Receiving and issuing takes place at the same location at Haller Lake.	I/P. Reorganization of the Haller Lake warehouse is under way. ECD - December 2009.
13 Recommend current written procedures covering the Warehousing operations.	I/P. Warehouse policies and procedures are being drafted. ECD - December 2009.
14 Recommend continued efforts to increase parts contracts for high usage items.	I/P. ECD - December 2009.
15 Perform physical inventory at least annually. Monthly counts are preferred.	I/P. Physical inventory has always been done annually. Moving towards a monthly, cyclic inventory. ECD - December 2009.
16 Recommend using parts functionality of FA to highest extent possible.	I/P. The FA vendor has reviewed our current structure and will be on-site to make changes to system warehouse parts functionality structure and train all staff. ECD - December 2009.
17 Recommend issuing parts real time.	Complete.

Warehousing Operations

Recommendation	Status
18 Recommend invoice approval be function of Finance & Administration Division.	Not started. Under review.
19 Recommend establishing Performance Measures.	I/P. Performance measures will be part of pending Warehouse policies and procedures. ECD -December 2009 to complete policies and procedures and implement them in 2010.
20 Recommend establishing a fuel testing contract that would perform leak detection tests required by the EPA. Currently, FSD requests this service on an ad hoc basis. (M)	Leak detection testing required by EPA is being performed. Reasearching need to establish a fuel testing contract. ECD - December 2009.
21 Establish written policies and procedures that cover Fuel Management operations.	I/P. Warehouse policies and procedures are being drafted. ECD - December 2009.
22 At several locations there is evidence of clutter and parts in the aisles.	Complete. Removed clutter and parts from aisles. Conducting more thorough cleanliness and housekeeping inspections during Monthly Shop Safety Inspections.
23 Warehouseers at Haller Lake, Fire Shop, and SSC lack the space to increase stock if there is a significant increase of the size of the mix of the fleet.	Complete. Installed new parts storage lockers at each site. Removed may old storage shelves.
24 The technology used to manage the fuel operations is antiquated and requires a total overhaul. (M)	I/P. Researching alternatives. ECD (research) - December 2009.

Indicates item appeared on both Chatham and Mercury Reports.

(M) Indicates item appeared on Mercury Report only.

Warehouser Survey

Recommendation	Status
1 Lowest scores for warehouse workers: a) solving technical problems b) physical work conditions c) cooperation between employees	a) I/P. Generating Warehouse policies and procedures. Upgrading and conducting all-staff training on FA fleet information system software. ECD - December 2009. b) Complete. Installed new cabinets solved numerous storage problems. Reorganized spaces. c) I/P. Implemented monthly all-staff meetings to enhance communication and resolve issues. On-going.
2 Areas warehouse workers would improve: a) management issues - greater sensitivity to the impact of their decisions on day-to-day operations b) communications c) staffing d) greater fleet standardization e) reduce paperwork or add data entry help	2a) and b) I/P. Issues are being addressed through Warehouse management training, enhancing communication through Weekly Staff Reports from the FSD Director, monthly staff meetings, and future all-staff training in policies, procedures, and software operations. 2c) and e). Not started. Staffing and paperwork analysis will be conducted after process improvements have been implemented. ESD - 2010. d) I/P. Efforts are being made to standardize vehicle purchases. On-going.
3 Warehouse workers are more reluctant to reveal problems or errors to management.	Noted comment. FSD will conduct an internal staff survey after changes have been implemented to determine whether these issues still exist. On-going.

Work Priority & Scheduling

Recommendation	Status
FSD should improve its work scheduling practices using the templates provided in this report as a guide.	I/P. ECD - December 2009.
Closer attention should be paid to the amount of a shop's work that is generated from vehicles assigned to other FSD shops.	Allocation of work between sites was evaluated. Changes were made to smooth out the shops' workload. On-going assessments required.