

# Main Functions

- Operations and Maintenance (O&M)
  - Fleet
  - Staffing
  - Shop rate
  - Direct Charges
    - Fuel
    - Parts
    - Insurance
  - PM Program
  - Computerized Fleet Analysis
- Replacement
  - Proactive philosophy
  - Replacement Program
  - Contributions
  - Process
  - Recommendations
  - Bid Process
  - Co-operative Purchasing
  - Lease/Purchase
  - Surplus units

# Replacement

- Proactive Replacement program
  - *Maintains a higher level of reliability and safety for departments and employees.*
  - *MP depends on “forward funding” of unit replacements.*
  - *Prior efforts relied upon annual capital outlays from operating budgets of user departments.*
  - *Other communities have commented in the past on how they would like to set up a system similar to Petersburg’s.*

# Replacement

- Replacement Program
  - Replacement Account FY17 year end balance was \$4.4 million.
  - Annual contributions are calculated for each active unit in the fleet.
  - Reserve, surplus, historical and small tools and equipment are generally not included in the replacement program.
  - Units not included in replacement program will require approval of a capital outlay from the user department before they will be replaced.

# Replacement - Contributions

- Each user department is charged monthly to maintain their replacement account.
- This charge is based upon expected replacement cost and life span of the unit.
- The goal is to achieve full funding of a new unit by the end of the life span.

# Replacement - Contributions

- Replacement cost = original purchase price + 3% inflationary adjustment per year of life span.
- Example: \$20,000 purchase price & 10 yr life span
  - *Compounding 3% per year equals a replacement cost of \$26,878.*
  - *Contribution = Replacement cost ÷ life span*
    - $\$26,878 \div 10 \text{ yrs} = \$2,687/\text{yr}$  or  $\$223/\text{month}$
- Currently, all departments are contributing at levels of 40-100% of ideal vehicle contributions and relying on departmental balances to fund replacement purchases.
- The reduced contributions amounts will allow the MP to “spend down” the fund balance and reduce annual budgeting while maintaining the ability to purchase equipment when needed.

# Replacement - Contributions

- Finance department treats replacement as one singular fund.
- MP tracks (via spreadsheet) individual unit replacement accounts and departmental accounts.
- Contributions transferred into fund monthly.
- Revenues from unit disposal/sale are deposited back into fund, reducing overall contributions needed.

# Replacement Process

- NO AUTOMATIC REPLACEMENT AT END OF LIFE SPAN.
- When a new unit is purchased a replacement account is established/updated.
  - *Life span is set based upon unit expected service life.*
    - Light duty vehicles: typically 10 – 12 years.
    - Police units: typically 4 – 6 years.
    - Fire trucks: typically 20 – 25 years.
    - High use or high reliability heavy trucks: typically 10 years. (garbage truck, PMPL line trucks)
    - Heavy equipment: typically 15 – 25 years.
  - *Replacement cost is calculated.*
  - *Contributions commence.*
  - *Balance and contributions are adjusted after any revenue from old vehicle is deposited.*

# Replacement Process

- During life span of unit – PM's performed on regular schedule to ensure reliability, safety and extend life.
- Rarely do units fail to meet their expected life span. Usually if a catastrophic failure occurs it happens after a unit has already been extended.



# Replacement Process

- If a unit's projected life cycle will end in the next fiscal year, the process begins during the budget preparation.
- A unit is inspected and evaluated by the MP mechanics.
- If a unit is in reasonable condition with few maintenance needs, the unit is recommended for extension (1-5 years).
- If maintenance needs are extensive or large ticket items are needed, a closer look is required.

# Replacement Process

- When potential maintenance costs are high, others factors are used to determine the replacement recommendation. These factors include:
  - *Maintenance history – recurring problems*
  - *Residual value vs. Maintenance Costs*
    - If large ticket maintenance is needed that cost more than 70% of the residual value, replacement is recommended.
  - *Residual value as a trade-in on new unit. Replace if residual trade-in value is needed to fund new unit.*
  - *Reliability – is the unit reliable for the user department?*
  - *Mission critical to public safety – Is the unit's reliability and dependability required to meet a public safety need?*

# Replacement Process

- Replacement factors (cont')
  - *Safety – is the unit still safe for the desired service?*
  - *Cost of new unit – Is the unit's or department's replacement account sufficient to fund purchase?*
  - *Actual use of unit*
    - High use or critical units – err on safe side and replace.
    - Low use/less critical – low risk with extension of life.

# Replacement Recommendation

- Extension
  - *Time period of extension is also recommended.*
  - *Risk of unit not reaching extended date is present.*
    - Some units make it fine, others don't.
  - *Replacement value is recalculated and annual contributions are adjusted to reflect additional inflationary contributions only.*
  - *Evaluation is completed again at end of extension period. Additional extensions are possible.*

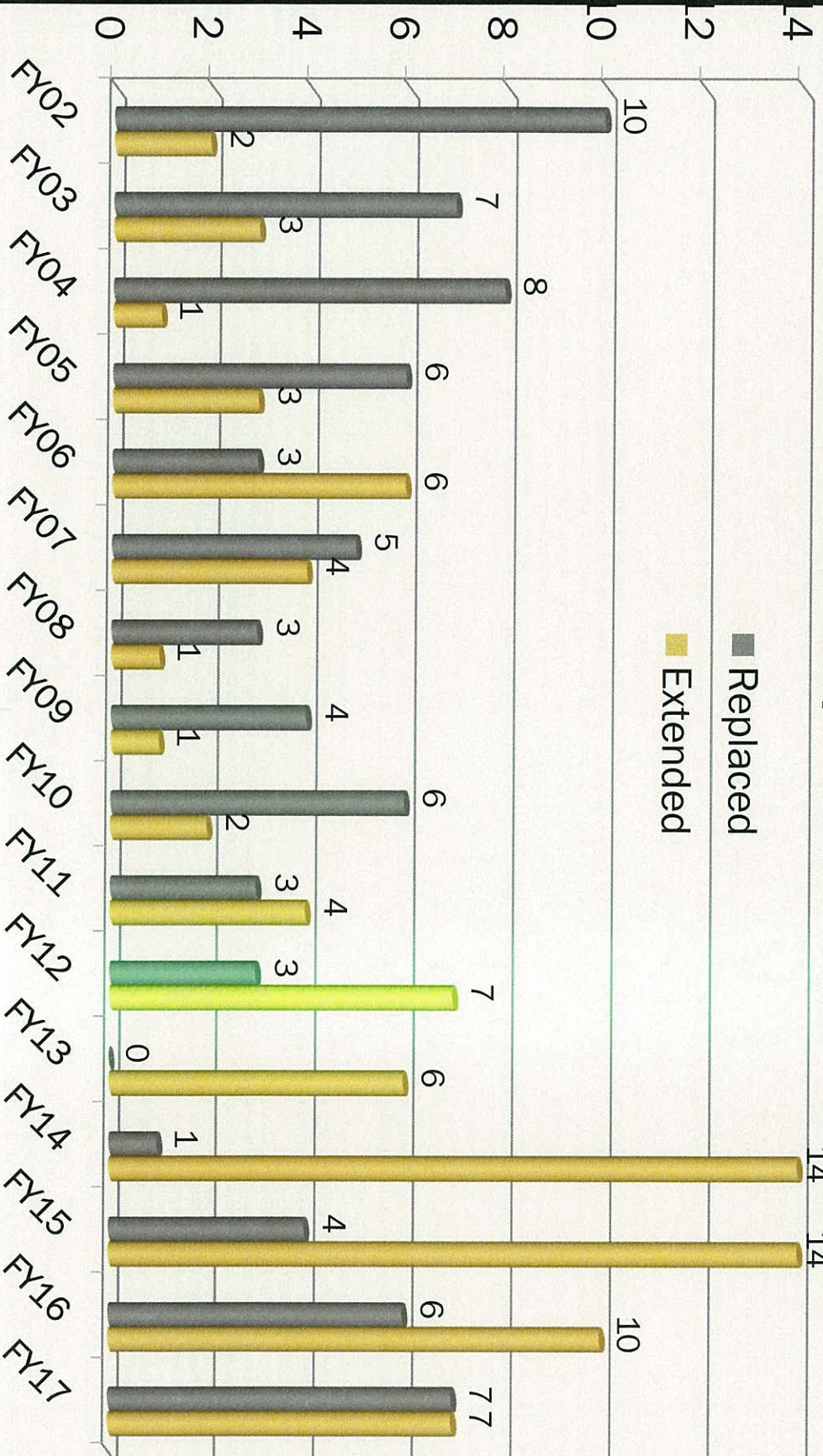
# Replacement Recommendation

- Replacement
  - *Once recommended to replace, this must be approved by:*
    - Borough Manager
    - Borough Assembly
  - *Most approvals fall into overall Borough budgetary process.*
  - *Replacements not included in the budget are subject to the supplemental budget ordinance process.*

# Replacement Recommendation

- Replace
  - *If approved, purchase of the new unit is achieved by competitive bid process or cooperative purchasing agreements (“piggybacking”).*
  - *If not approved, the unit is extended one year unless another time frame is specifically identified.*

# Historical Replacement/Extension



# Bid Process

- Develop specification with user department.
- Advertise.
- Respond to bidder questions.
- Accept sealed bids.
- Open bids publicly.
- Review and recommend award.
- Seek approval from the Assembly.
- Issue purchase order if approved.
- Accept delivery of unit.
- Typically a 6 month process from start to finish for uncomplicated units.  
Can extend to 10-11 months if unit is complex.



# Co-operative Purchasing

- *Develop a conceptual or general specification.*
- *Contact State of Alaska Fleet or National Joint Powers Alliance for recent competitive bid awards that meet the specification.*
- *Compare spec to available co-op units and develop a purchase recommendation.*
- *Seek approval from Manager and Assembly for purchase.*
- *Issue purchase order.*
- *Accept delivery of unit.*
- *Much shorter timeline mostly dependent upon manufacturer's production schedule. Typically 4-5 months for uncomplicated units and up to 8 months for more complex equipment.*
- *Most time savings are due to reductions in time spent on specification development and elimination of bid solicitation periods.*

# After Replacement

- Replaced units are considered surplus, unless otherwise approved by the Assembly.
- Sold – Auction (outcry or online) or Sealed Bid.
- May be traded in as part of purchasing agreement for new unit.
- Retained as reserve vehicle if need exists and approval is gained.
- Retained for other uses upon approval of Assembly.

# Replacement Example

- Police Department Unit #86 – Patrol Unit
  - *This unit is used for normal patrols in the community and to outlying areas when needed.*
  - *Historically an SUV, the department sought a crew cab pickup for this replacement to increase remote access capabilities and utility function – in addition to normal patrol capabilities.*
  - *The truck has all the accessories needed for effective patrol capabilities and officer safety, such as lights, siren, long gun locking mount, VHF radio, spotlights, push bumper, radar system, camera system, rear prisoner restraint seat, prisoner/driver partition.*
  - *The truck offers increased department capability for towing of the mobile Emergency Operations Center trailer if needed.*

# Example – Patrol Unit

- Background information
  - Last bid, award and purchase in FY2008.
  - \$40,715 spent from replacement fund in 2008.
  - Contributions to replacement account made since 2008 to replace with same size and configuration of SUV in FY18 in the amount of \$54,714 – which is the budget for this purchase.
  - Similar SUV purchased in FY17 cost the Borough \$53,485.
  - FY18 replacement balance (Police)  
 $\text{Balance } \$40,113 + \text{FY18 contribution } \$24,043 = \$64,157 \text{ available}$
  - Actual final cost of replacement truck = \$46,811

# Example – Patrol Unit

- Evaluation of old SUV completed by MP staff
  - *Engine* – look for leaks, compression, belts
  - *Drive Train* – leaks, shifting smoothly
  - *Body and chassis* – damage, corrosion, fasteners
  - *Electrical* – lights, instrument cluster, wiring looms
  - *Heating/Cooling* – hoses, coolant leaks
  - *Other* – specific police accessories operating correctly?

# Example – Patrol Unit

- Other research used in replacement recommendation
  - *Reliability – High priority! Not as reliable as needed.*
  - *Public Safety – High priority! Required to fulfill PD mission of public safety.*
  - *Residual value – Relatively low due to high miles.*
  - *Cost of new unit – Budgetary pricing known from FY17 purchase of SUV*
  - *Maintenance costs high? Moderately.*
  - *Replacement fund adequate? Yes.*
  - *Unit has not been 100% reliable as required for patrol duty, but was requested by the police department to be placed into reserve status and utilized by the department in the case of larger tactical operations and responses to drug arrests that bring outside law enforcement agencies to Petersburg. Once in reserve status, no replacement contributions are made and one major failure will cause it to be sold.*

# Example – Patrol Unit

- Recommendation and outcome for FY18
  - *Replacement/retention as reserve vehicle was recommended:*
    - Approvals granted by Manager and Assembly in FY18 budget process.
    - Utilized State of Alaska cooperative purchasing to purchase truck from Kendall Ford of Anchorage.
    - Reused various accessories and components from past patrol vehicles to cut costs: camera system (saved \$5,585), long gun rack with locks/timer (saved \$410), Computer mounts and docking station (saved \$1,495) and printer with mount (saved \$750). Total savings by reusing equipment: \$8,240.
    - PD communications grant from Homeland Security used to pay for the VHF radio and installation: \$5,446 paid by grant.
    - Shipping estimate to barge truck from Anchorage to Petersburg (must go through Seattle) is \$2400. Department sent staff member to Anchorage on Borough air miles to pick up the truck and drive to Skagway to get on ferry at a total cost of approximately \$1,200. The truck was also utilized by staff attending a conference in Anchorage, in lieu of renting a car.
  - Total cost of truck to Borough, with shipping, is \$48,011.

# Summary

- The Motor Pool strives to ensure unit reliability, provide essential services in support of all other Borough equipment needs and to stretch capital equipment dollars to the benefit of the Borough and community.
- All replacement recommendations are made with justifications based upon research, historical data and economic values.



# Questions?

Thank you for your time.