



**ERRF**

# Equipment Replacement Reserve Fund



3/2/2009



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# Principles of the Equipment Replacement Reserve

- Fund established in 1973 to ensure adequate funds available to replace fleet equipment as needed.
- Equipment in the ERRF contributes to the fund on an hourly or annual basis so that at the end of its life enough has been accrued to afford replacement.
- Funds are invested and interest arises so that on average only 85% of the replacement value needs to be contributed directly.





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- ERRF is intended to provide funding for fleet replacement but also is utilized to facilitate replacement of high cost non-vehicular equipment.
- Not all vehicles owned by the City are included in the ERRF fund. Those retained but not planned to be replaced at the end of life do not contribute to the fund

TOTAL ERRF UNITS SUMMARY	
Total Units	102
Contributing Units	90
Total Vehicles	77
Contributing Vehicles	68



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# Vehicle Life Assumptions

- Lifespans of vehicles included in the fund vary with the type of vehicle extended significantly in recent years to reduce expenditures
- Vehicles are not automatically replaced at the assumed lifespan but are often retained longer if unit condition warrants. Occasionally units are replaced before expected life due to mechanical problems.
- The average assumed lifespan is 14 years
- The average age of equipment currently in the fleet and contributing to the ERRF is 8 years.



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# Vehicle Life Assumptions

Lifespans for general classifications of vehicles in the fund are as follows:

- Sedans and light pickups – 13 years
- Service pickups – 10 to 12 years
- Loaders/ graders/ excavator – 20 years
- Backhoes – 10 years
- Dumptrucks – 10 years
- Mowers – 10 years
- Garbage Trucks – 8 years
- Firetrucks – 20 years (+?)
- Trailers -25 years





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## Contributions by “Hourly” Equip.

- Hourly Equipment is charged out to all jobs at an hourly rate consisting of an “errf” component and an “operation” component.
- Most Public Works and Parks equipment is hourly.
- Operation component covers the cost of fuel, repairs, insurance, and shop overheads.
- ERRF component accrues funding so that a balance covering replacement is available at the end of the vehicles life.
- Hourly contributions have not increased since 2003



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# Hourly Equipment Example

Example of Hourly equipment is a Public Works Backhoe – Unit #302 John Deere 310SJ

<b>Operation</b>	<b>= \$ 12.40</b>
<b>ERRF amount</b>	<b>= \$ 8.63</b>
<b><u>Operator</u></b>	<b>= \$ <u>54.52</u></b>
<b>TOTAL RATE</b>	<b>= \$ 75.55</b>

**Contractor's Rate for Same unit is \$85/hour**

- 1300hrs/yr x 10 yr Life x \$8.63/hr = \$ 112,200
- Plus estimated Interest of \$19,800=\$ 132,000



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## Annually Contributing Equipment

- Non -Hourly Equipment is charged to the user departments budget on a annual basis.
- Supervisory, Administration, Fire Dept. and small non-vehicular equipment is charged out on an annual basis.
- Operation component covers the cost of fuel, repairs, insurance, and shop overheads.
- ERRF component accrues funding so that a balance covering replacement is available at the end of the vehicles life.
- Contribution rates have been frozen with no increases since 2004.



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## Annual Equipment Contribution Example



Example of Annually funded equipment is Firetruck Unit #3 – 1984 International Pumper

- Annual contribution of \$19,890 x 20yr life = \$397,800
- Plus estimated interest accruing of \$70,200
- = Replacement Value of \$468,000



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# Interest Contributions to the Fund

- Most of the fund balance is invested with the Municipal Finance Authority in very secure attractive yield investments.
- In 2008 the fund balance of \$4.98 Million yielded interest earnings of \$179,000 Or 3.6%.
- Historically the interest earnings have provided an average of 15% of replacement cost. 85% provided through annual ERRF contributions.
- Future interest earnings for projecting the fund balance are estimated to be at 3%/yr.



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# Annual Fund Expenditures

- Fund expenditures vary significantly over years due to periodic replacement of very expensive units
- Planned expenditures vary annually from about \$300,000 to \$1,300,000.
- Use of the ERRF allows taxation amounts required to be “evened out” and also reduced due to the interest contribution





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# 2009 Fund Expenditures

Scheduled replacements in 2009 are:

- #3 - 1984 Int Pumper Fire Truck \$468,000
- # 167 – 1998 Chev One Ton Service Truck. \$46,500
- #392 - 1997 Case Backhoe \$106,000
- #697 – 1999 Clarke Floor Scrubber \$15,000
- Computer Replacements \$ 85,000

**TOTAL**

**\$ 732,500**



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**Unit 3 – 1984 International Pumper Truck**



**Unit 167 – 1998 Chev One Ton  
Compartment Body Service Truck.**



**Unit 392 - 1997 Case Backhoe**



**#697 – 1999 Clarke Floor Scrubber**



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# Fund Balance Projections

- To be sustainable the fund balance should optimally be 40-50% of the replacement value of contributing equipment and should not go below 33%.
- Current fund balance of \$5.49 Million represents 62% of the estimated fleet replacement value of \$8.84 Million.
- Extension of planned vehicle life, extension of life of specific vehicles and favourable interest contributions have contributed to the current positive fund balance.



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# Fund Balance Projection Variables

Projection of the fund balance to ensure long-term sustainability depends on realistic estimation of three key variables:

**Current assumptions are:**

Automatic Annual Hourly Equipment Rate Increase	0.0%
Automatic Annual Non -Hourly Equipment Rate Increase	0.0%
Discount rate due to Fund Interest - Hourly	15.0%
Discount rate due to Fund Interest - Non-Hourly	15.0%
Assumed Rate of inflation on Equipment Replacement	2.0%
Assumed Rate of Interest on invested Fund Balance	3.0%

Annual review of these variables and adjustment where needed is required to ensure long-term sustainability of the fund within the targeted balance range.



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# Potential for Transfers to Other Capital Funds

- Current fund balance exceeds the optimum level recommended.
- Transfer of \$200,000 annually to the Road Capital fund was approved as part of the 2008 Financial Plan
- This allows for transfer amount adjustment in future years if interest or inflation rate estimates prove inaccurate.
- **Annual transfer of \$200,000 to Road Capital is recommended to continue in this plan and be extended to 2013**



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# Projected ERRF Fund Balance

