Lease vs. Purchase: Vehicles and Equipment

The Town of Wayland replaces equipment and vehicles on an annual basis, typically due to the age and obsolescence of these assets. Occasionally, the Town adds an additional vehicle or piece of equipment. Residents ask the question:

"What is the financial impact on the Town if vehicles and equipment were to be leased rather than purchased?"

Background

The Town of Wayland owns a fleet of vehicles, which includes police cruisers, ambulances, fire department cars and trucks, and a variety of trucks and heavy equipment used by the Department of Public Works (DPW). The Town owns most of these vehicles for a minimum of 5 years, and the trucks are often owned and operated for 10 or more years. (The principal exceptions to this are police cruisers, which are funded through the operating budget as they are typically replaced every three years due to use and mileage.)

Commercial vehicle leases are structured as lease to purchase agreements with no residual value at the end of the lease. Consumer vehicle leases are most often structured with money down, a lower payment and a residual value after the term of the lease.

Analysis of Leasing vs. Purchasing

The Town of Wayland is currently able to borrow at a rate of approximately 1.5% per annum for vehicles and equipment (borrowing for a term of 5 years or less). This rate is considerably less than the rate that a leasing company can obtain for the fleet of vehicles and trucks that it would lease to the Town of Wayland.

In order to provide an actual analysis of the costs of leasing compared to owning vehicles, we received a quote form a truck leasing company for a Ford F-350 vehicle. This is a standard truck often used by the DPW, and one is being requested for FY2013. The comparative analysis (attached) shows that the cost of owning is approximately 19% better than the cost of leasing, based upon the Town's current cost of capital. That difference decreases if the Town's cost of capital increases, which assumes that that the cost of capital for the leasing company would remain the same. The reality is that as interest rates rise, the cost of capital for the leasing company would be expected to increase by a greater amount than the Town's cost of capital, and the benefit of owning might be even greater than it is in today's market conditions.

Town of Wayland: Vehicle Lease vs. Purcahse

I. Purchase Option	
Purchase Price	-$46,000
NPV	-$45,943
Straight Line Cost	-$47,716

II. Lease Option	
NPV	-$54,651
Straight-Line Cost	-$56,760

Analysis	
NPV Savings by Purchasing vs. Leasing	$8,708
Savings as a % of Vehicle Cost	18.93%

Assumptions:

1. NPV Interest Rate (Wayland's Current Cost of Capital) 1.50%

2. Under both scenarios, the Town continues to own the vehicle at the end of 60 months, with no more payments owed.

3. The lease scenario assumes the Town can purchase the truck for $1 at the end of 60 months (per leasing company).

Sensitivity Analysis:					Savings as %
NPV - Varying Costs of Capital		Purchase	Lease	Savings	of Vehicle Cost
Discount Rate of 3.5%	3.50%	-$43,715	-$52,002	$8,286	18.01%
Discount Rate of 5.0%	5.00%	-$42,141	-$50,129	$7,988	17.36%
Discount Rate of 6.0%	6.00%	-$41,135	-$48,932	$7,797	16.95%

Note: The leasing information was provided by Merchants Leasing of Hookset, NH.
Merchants is in the business of renting and leasing vehicles, including trucks.

Analysis as of
March 2012