

# AMP Development Worksheet

## Topic #2

### Statement of Problem, Question, or Situation

Develop a plan for the efficient and orderly replacement of school buses in your fleet.

### Attributes of Problem, Question, or Situation

#### **Examples of:**

Qualities  
Characteristics  
Traits  
Features  
Elements  
Parts  
Aspects

A successful school bus replacement program:

- Future district transportation needs
- Replacement criteria (mileage vs. age)
- Specifications
- Warranties
- Length of service
- Cost of ownership
- Purchasing options

### Describe strategies or options to focus on attributes

Review service records (annual per vehicle maintenance costs) and purchasing specifications for current fleet to determine age/mileage/cost of ownership (annual vehicle maintenance costs X number of years in service).

Review district vehicle maintenance program to determine if current program is effective in district realizing full vehicle service life potential.

Review service records to determine vehicles with the highest annual maintenance costs and/or a history of high annual maintenance costs.

Research innovative practices in truck and bus fleets to reduce costs and improve vehicle performance. (Programming transmissions, single rear tires, fuel-efficient engines, additional oil filtration, additional fuel filtration, aluminum air tanks, use of corrosive resistant materials, LED lighting, etc.)

Review district needs in terms of enrollment projections to assess the capacity requirements for school buses operating over the next bus life cycle.

Review district budget availability for future bus acquisitions.

Review manufacturer specifications/warranties to determine what options will best meet the district needs. (structure warranties, corrosion warranties,

warranty service proximity)

Review various purchasing options including leasing, lease/purchase, and purchase. Review various group/cooperative purchasing options.

MSBO website: [www.msbo.org](http://www.msbo.org) MSBO/MAPT Aggregated Bus Purchasing Program

Internet search of School Bus Manufacturer websites/Specifications

Internet search of School Bus Manufacturer website/Warranties

<b><u>Identify AMP objectives</u></b>	<b><u>Define minimum performance levels for each</u></b>
<p>Project annual replacement of vehicles for a minimum of the five years with yearly updates considering district availability of financial resources</p> <p>Utilize specifications that are cost effective and establish a pre-determined vehicle useful life at the time of purchase.</p> <p>Utilize specifications that consider manufacturer warranties and options that address vehicle service life.</p> <p>Specify vehicle size to coincide with determined future district transport needs.</p> <p>Utilize specifications that address fuel conservation/exhaust emissions issues.</p>	<p>Vehicle replacement schedule meets the district needs for replacement and is consistent with the availability of financial resources.</p> <p>Specifications based on information gathered from vehicle records, cost analysis of vehicle service life options, and a specified length of service at the time of purchase.</p> <p>Manufacturer warranties are essential when determining the bus purchase and projected service life.</p> <p>School bus capacity requirements are reflective of future district needs.</p> <p>Buses purchased reflect consideration for fuel conservation and reduced exhaust emissions.</p>

### **List actions/tasks to accomplish objectives**

Perform a cost analysis of vehicle service life for eight, ten, and fifteen years of service in the district operation.

Consult with vehicle distributor representatives, mechanics, and other transportation supervisors to determine the specifications and service life for newly purchased vehicles.

Review specifications, cost, and written documentation on engine/transmission combinations and other products that conserve fuel, reduce exhaust emissions, and/or reduce operating costs. Project payback for each product reviewed and make cost-effective determinations.

Determine which replacement strategy and service life best meets the needs of the district and make recommendations for purchase.

Meet with the school district business official/superintendent to determine best action to acquire funds for necessary vehicle purchase.

Analyze bids and/or bidding proposals to determine which proposal best meets the stated specifications.

### **Identify methods to evaluate actions/tasks to meet objectives**

Short-term: Vehicle purchase meets or exceeds the desired specifications in terms of projected service life and projected cost of ownership and the capacity meets the district needs.

Long-term: Vehicles purchased exceed the projected service life with lower operating costs, reduced fuel emissions, reduced exhaust emissions, with reduced maintenance intervals and lower operating costs based on district vehicle repair records.