

# U.S. Fish and Wildlife Service



## *Heavy Equipment Utilization and Replacement Handbook*

**December 2015**

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# FWS Heavy Equipment Utilization and Replacement Handbook

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## **1. INTRODUCTION AND PURPOSE**

**1.1 What is the background and purpose of this guide?** The U.S. Fish and Wildlife Service (Service) owns and leases a wide variety of heavy duty motor equipment (HE) and heavy trucks that we use for many activities to fulfill our mission. We must manage our HE and heavy truck fleet (HE Fleet) to best meet our mission needs while striving to do so in an efficient and cost-effective manner that allows for optimal utilization and return on investment.

The purpose of this handbook is to describe best practices to optimize management of our HE Fleet, clarify roles, and empower Regional and Headquarters (HQ) employees to take a more active role by focusing on four primary goals:

- 1) Right size the HE Fleet to most efficiently fulfill mission requirements,
- 2) Minimize ownership cost and reinvest proceeds from sales back into the HE Fleet,
- 3) Work towards a U.S. Environmental Protection Agency (EPA) Tier 4-compliant fleet by 2025, and
- 4) Create an HE Fleet management structure that complies with Service and Department of the Interior (DOI) policy and other Federal mandates.

Our intent is not to have employees rely on or assume that Business Management and Operations and Contracting and General Service's employees carry out all HE Fleet management duties, but instead to initiate a more aggressive program by Service HE Fleet coordinators. Especially within the National Wildlife Refuge System, our job is to ensure we have the right number and type of heavy equipment and trucks at the right locations and at the lowest long-term cost consistent with mission needs. As we move forward, we will work in partnership with all Service organizations to develop and implement a team approach to optimize fleet management. We've developed this handbook to clarify roles and responsibilities, not to create a new policy. All the activities described in this handbook are consistent with existing Service policy (see 322 FW 1 and 322 FW 2 in the Service Manual).

## **2. DEFINITION, CLASSIFICATION, AND OWNERSHIP OF HEAVY DUTY MOTOR EQUIPMENT**

### **2.1 How does the Service define heavy duty motor equipment?**

We define heavy duty motor equipment as any item of equipment that is self-propelled or drawn by mechanical power or designed principally for operators to use off highways. The term includes construction, maintenance, materials handling, forestry, and agricultural equipment ([321 FW 1](#)).

Table 2-1 describes many of the types of heavy duty motor equipment.

Table 2-1 Heavy Duty Motor Equipment	
Equipment	Comments/Examples (if applicable)
(a) Crawler-dozers and crawler-loaders	
(b) Four-wheel-drive loaders	Articulating or straight frame
(c) Motor graders	Articulating or straight frame
(d) Draglines	
(e) Power excavators	
(f) Motor cranes	
(g) Agricultural tractors that are:	<ul style="list-style-type: none"> <li>• Self-propelled,</li> <li>• 2/4 wheel or track driven,</li> <li>• More than 20 engine HP,</li> <li>• Articulating or straight frame,</li> <li>• Equipment designed to furnish power to agricultural/forestry/construction/ industrial tools or attachments,</li> <li>• Manufactured with a roll-over protection system (ROPS), and</li> <li>• Defined in <a href="#">29 CFR 1928.51(b) (1)</a>.</li> </ul>
(h) Amphibious/soft tracked equipment (wheeled or tracked) over 1,900 pounds curb weight including:	<ul style="list-style-type: none"> <li>• Weasels</li> <li>• Thiokols</li> <li>• Roligons</li> <li>• Marsh Masters</li> <li>• Snow-Cats</li> <li>• Muskegs</li> <li>• Gyro-Tracs</li> <li>• Geo-Boys</li> <li>• Hydro-Axes</li> </ul>
(i) Self-propelled scraper pans	
(j) Industrial tractors	Front-end loader/backhoes
(k) Skid steers	
(l) Forklifts	Classes 1-7
(m) Industrial powered lift trucks	

**2.2 How does the Service define and classify heavy duty motor vehicles?** We describe how we classify vehicles in [320 FW 1](#). Heavy duty motor vehicles include heavy-duty trucks, trucks with conventional cabs, van bodies, dump trucks, stake side trucks, and tractor trucks that have a gross vehicle weight rating (GVWR) of 35,001 pounds (lbs) and greater.

**A. Heavy Duty Trucks** – Trucks with conventional cabs, van bodies, dump trucks, stake side trucks, and tractor trucks that have a GVWR of 35,001 lbs and greater.

**B. Commercial Motor Vehicles** - Only operators with a Commercial Driver's License (CDL) may operate commercial motor vehicles. Commercial motor vehicles may be medium or heavy-duty trucks used to transport passengers or property if the vehicle:

- Has a GVWR of 26,001 or more lbs;
- Has a gross combination weight rating (GCWR) of 26,001 or more lbs. This GCWR includes a towed unit with a GVWR rating of more than 10,000 lbs (see Table 2-2 for examples of combination weights requiring a CDL); or
- Is designed to transport 16 or more passengers, including the driver. This includes vans, buses, shuttles, passenger-carrying trams, tram trailers, or trolleys.

<b>Table 2-2: Calculating the Gross Combination Weight</b>				
<b>Truck GVWR</b>	<b>+</b>	<b>Trailer GVWR</b>	<b>=</b>	<b>Gross Combination Weight Rating (GCWR)</b>
16,000 lbs.	+	10,200 lbs.	=	26,200 lbs.
22,000 lbs	+	12,000 lbs.	=	34,000 lbs.

**2.3 How does the Service identify who owns the heavy duty motor vehicles we operate?**

**A.** Heavy duty motor vehicles that the Services operates and owns are denoted with “I” license plates. These vehicles should be shared among proximate stations and complexes, as appropriate.

**B.** General Services Administration (GSA) heavy duty motor vehicles are leased and have “G” license plates.

**C.** Short-term rentals (up to 120 days) should be considered for seasonal or one-time special needs. They do not have Government license plates.

**3. ROLES AND RESPONSIBILITIES**

**3.1 What particular functions do these roles and responsibility statements focus on?** The roles and responsibilities in the handbook are meant to focus on the four primary goals of our HE Fleet management program described in section 1.1 and not to reflect the full range of responsibilities related to use and management of our HE Fleet (see 322 FW 1 and 2 for more high level responsibilities related to the program). The responsibilities we discuss here are designed to achieve our primary goals so that we will have the right number and type of heavy

equipment/heavy trucks in our fleet at the right locations and at the lowest long-term cost consistent with mission needs.

### **3.2 Who is responsible for implementing the Service's HE Fleet management policy?**

#### **Headquarters Roles:**

**A. The Director** – Ensures that we have an HE Fleet management program that complies with Departmental policies, standards, procedures, and guidelines.

**B. The Deputy Director** - As the Service Senior Asset Manager, is responsible for the overall management of our HE Fleet program.

**C. The Assistant Director – Business Management and Operations (BMO)** is responsible for:

- (1) Establishing overall policy and guidance for acquisition, safety, personal property, and internal control over financial reporting (see Office of Management and Budget (OMB) Circular A-123, Appendix A; heavy duty motor equipment is controlled personal policy); and
- (2) Supporting the National Heavy Equipment Coordinator's implementation of this policy by providing technical guidance and transactional support.

**D. The National HE Coordinator** is the lead for the Service's HE Fleet management program. The Coordinator's primary responsibilities include:

- (1) Evaluating all aspects of the HE Fleet management program to ensure consistency with Departmental policies and Federal regulations;
- (2) Working with the National Vehicle Fleet Manager in CGS and Regional HE Fleet Coordinators to conduct fleet management performance studies;
- (3) Serving as a team leader in developing national policy and HE Fleet management practices;
- (4) Serving as the liaison between Regional HE Coordinators and HQ to promote efficient and effective management of the fleet;
- (5) Developing national guidelines to ensure that all equipment in the HE Fleet is essential in carrying out the Service mission;
- (6) Assessing mission needs and HE Fleet utilization to recommend ways to optimize size, composition, and geographic distribution of the fleet;
- (7) Developing standards to maximize optimum timing for equipment and heavy trucks sales and reinvestment of the proceeds back into the HE Fleet management fund;
- (8) Promoting completion of utilization reporting in the fleet management system of record to guide cost-effective fleet management;
- (9) Providing national guidance to Regional HE Coordinators on underutilized heavy equipment and heavy trucks for reassignment, disposal, or replacement;

- (10) Assisting Regions to develop and implement procedures for managing special purpose vehicles and equipment;
- (11) Developing guidance and communications about the proper use of the fleet management system of record; and
- (12) Overseeing data quality for the fleet management system of record. This includes identifying data quality issues and working with the appropriate people to resolve them.

## **Regional Roles:**

**A. Regional Directors** – Responsible for the effective management of their Regional HE Fleet programs, including:

- (1) Ensuring the Regional HE Fleet program is the minimum size necessary to meet mission needs, and is in compliance with the Service policies, standards, and regulations;
- (2) Establishing a Regional HE Fleet replacement, sharing, and utilization program in concurrence with Servicewide standards and policy (Part 322); and
- (3) Making sure that staff actions are in line with the Regional HE Fleet management program, and that they manage Government heavy equipment in a way that protects us against fraud, waste, and abuse.

**B. Assistant Regional Directors (Programs)** — Responsible for ensuring their staff adhere to Service policies, procedures, and best practices in HE Fleet management, including, but not limited to:

- (1) Designating a Regional HE Coordinator to lead the program;
- (2) Designating a representative from their programs to serve as part of a team when developing Regional HE Fleet management practices;
- (3) Ensuring compliance with Service policy; and
- (4) Complying with requirements for the proper acquisition, maintenance, utilization tracking, cost reporting, transfer, and disposal of the HE Fleet.

**C. Regional HE Coordinators:** Each Region must designate an HE Coordinator to lead the HE Fleet management program. Each program must designate a representative to serve as part of a team in establishing Regional heavy and small equipment fleet management practices. The Regional HE Coordinators' primary duties include:

- (1) Ensuring the HE Fleet meets minimum specifications and models needed to meet mission requirements;
- (2) Approving requests from Regional program supervisors for the procurement, assignment or reassignment, transfer, and disposal of Service-owned HE;

- (3) Monitoring mission needs and HE utilization within their Regions to optimize size, composition, and geographic distribution of the HE Fleet;
- (4) Serving as part of a Regional team when making decisions to replace, repair, or dispose of equipment to help ensure the right size and composition of the fleet;
- (5) Reviewing and making recommendations about justification requests to acquire, replace, or retain field station HE;
- (6) Reviewing HE Fleet management practices in the Region to ensure day-to-day activities are in line with Service policy;
- (7) Working with the Regional Property Manager to optimize proceeds from sales of HE and to reinvest proceeds into the HE Fleet;
- (8) Coordinating with National HE Coordinator to provide consistent cost-effective practices across the Service;
- (9) Conducting condition assessments on the HE Fleet at each field station every 3-5 years;
- (10) Conducting additional site-specific evaluations as needed to assess HE utilization;
- (11) Identifying and acting on opportunities for HE disposal, sharing, and relocation;
- (12) Authorizing replacement of HE per national standards and guidance related to fleet size, utilization, type, equipment sharing, and location of replacements to maximize efficiency;
- (13) Acting as the Regional liaison between HE Fleet management activities on field stations and the Regional fleet team;
- (14) Determining size and distribution of the Regional HE Fleet;
- (15) Managing the Regional shared equipment program;
- (16) Providing opportunities for employee HE safety training; and
- (17) Verifying Regional compliance with data entry and data quality standards for tracking HE, costs, and utilization information in the fleet management system of record.

**D. Regional Property Managers:** The Regional Property Manager is responsible for conducting annual inventories, reviewing personal property-related acquisitions, processing disposals, and maintaining property records in the management system. The following describe roles in support of the Service's heavy equipment:

- (1) Supporting the Regional Heavy Equipment Coordinators with implementation of this policy by creating, maintaining, and disposing of property records in the property management system of record in accordance with Part 310 of the Service Manual;
- (2) Coordinating with the Regional Heavy Equipment Coordinator and Regional contracting staff on the acquisition and disposal of heavy equipment assets; and
- (3) Working with Regional Heavy Equipment Coordinator to ensure Regional inventory of heavy equipment is conducted annually.

**E. Station Managers:** Station managers' responsibilities include:

- (1) Working with their Regional HE Coordinator to ensure:
  - Their HE Fleet appropriately supports mission needs, and



- The correct size and type of heavy equipment or trucks are being utilized according to the needs of that particular station (including consideration for meeting goals for utilization, carbon reduction, and greening of the fleet);
- (2) Ensuring HE and truck maintenance is being performed according to Service and manufacturers' standards;
  - (3) Ensuring that all HE and trucks are maintained, utilized, and exchanged or disposed of in a manner that ensures the minimum cost of ownership;
  - (4) Seeking opportunities for management efficiencies by sharing HE throughout the Service;
  - (5) Ensuring timely and accurate reporting of HE utilization data into the current personal property reporting systems;
  - (6) Ensuring the proper documentation ([DI-102](#)) (<https://inside.fws.gov/go/post/property-Forms>) is submitted to the Regional Property office within 15 days of delivery of a piece of HE or a heavy duty truck;
  - (7) When equipment is exchanged, ensuring [DI-103A](#) (Certificate of Unserviceable Property) or [SF-126](#) (Report of Personal Property for Sale), or both, are submitted to the Regional Property Officer within 15 days of new equipment/truck delivery;
  - (8) Ensuring their staff is trained in the proper use, safe operation, and maintenance requirements of HE; and
  - (9) Ensuring accurate reporting and updating of HE Fleet inventory information within the current fleet management reporting system.

**F. Heavy Duty Motor Equipment Operators:** Operators' responsibilities include:

- (1) Ensuring proper care and maintenance of HE;
- (2) Reporting utilization to station managers or designees for inclusion in the current fleet management reporting system;
- (3) Reporting in a timely manner to station managers about any accidents, breakdowns, or repairs needed on any equipment or vehicles they operate;
- (4) Operating the HE Fleet in the most efficient manner;
- (5) Seeking opportunities for utilization of the HE Fleet sharing program to the fullest extent possible;
- (6) Ensuring the safe operation of the HE Fleet according to Service and Federal policies;
- (7) Taking advantage of opportunities to expand skill sets on the use and maintenance of HE, including, but not limited to, attending trade shows, working on refuge Maintenance Action Teams (MAT), and completing available training, such as the Wage Grade Academy;
- (8) Serving as mentors for personnel who are at an earlier stage of career development; and
- (9) When necessary, acquiring and maintaining a Commercial Driver's License (CDL) to operate heavy trucks and haul heavy equipment between stations.

## **4. HEAVY EQUIPMENT/TRUCK UTILIZATION:**

**4.1 How do we define HE and heavy truck fleet utilization?** HE and heavy truck utilization is the operational usage for each piece of equipment/truck within the fleet. Reporting utilization for HE (by hours) and heavy trucks (by miles) is required on a monthly basis in the Financial and Business Management System (FBMS). Tracking utilization data in the system monthly allows the Service to manage equipment and vehicle usage levels throughout the year. This level of detail offers insight into seasonal usage patterns to help identify sharing opportunities and to better assess if the Service's needs are being met as efficiently as possible.

**4.2 How is utilization information for HE and heavy trucks used?** All employees must use the fleet in a manner that complies with Service policy and justifies equipment retention based on utilization, sharing, and mission requirements. This is monitored by comparing HE and heavy truck utilization to utilization standards in 322 FW 1. Employees should use this to develop strategies to optimize fleet composition.

Regional HE Coordinators evaluate justification for ownership, as well as for leases or short-term rentals, using the information entered into the current property reporting system, in combination with information related to mission needs at each location. They make decisions on whether to retain or replace existing equipment and trucks based on:

- Annual hours/mileage,
- Age of equipment/trucks,
- Location of equipment/trucks,
- Maintenance costs for equipment/trucks,
- Type of HE/trucks,
- Category (Government-owned/leased/rented),
- Number of current or projected employees at a field station or Regional zone, and
- Individual station/office mission requirements to meet critical mission needs.

**4.3 How is the size and composition of the HE Fleet managed?** The Regional HE Coordinators make their decision to retain, reassign, dispose of, share, purchase, rent, or lease HE or trucks on a station-by-station basis to meet both the station's and Region's mission needs. The duties and responsibilities of the organization, the estimated annual hours of operation, location of the station, and availability of rental opportunities are just a few of the items they consider.

Once a mission justification has been made for needing the equipment, the Regional HE Coordinator determines whether it is more cost-effective to purchase additional units, replace existing equipment, or lease, rent, or share the equipment. They base this determination on five elements:

- Information reported in the FBMS database,
- Annual survey results,
- Site visits to include equipment condition assessments and equipment applications,
- Mission support requirements/justification, and
- Compliance with Service standards and policy.

**A. Reporting Requirements:** Station managers must report the utilization of their HE Fleet in FBMS on a monthly basis. This information helps determine equipment performance and utilization, and justifies retention or replacement of HE and trucks. Accurate and complete data is critical in making informed decisions for ownership, leasing, short-term rentals, or sharing of Service HE. Reporting requirements include

- Fuel usage,
- Maintenance costs,
- Mileage/hours, and
- Repair costs.

If the equipment is not used in a given month, the mileage/hours must still be recorded monthly. In addition, data gathered on heavy trucks is also used to report annually to the [Federal Automotive Statistical Tool](#) (FAST). Reporting requirements include:

- Fuel usage,
- Maintenance costs,
- Mileage/hours
- Repair costs, and
- Accessory costs (e.g., brush guards, bed liners, headache racks, etc.).

**B. Site Visits:** Regional HE Coordinators must conduct site visits on a 3-5 year basis at all locations with an HE Fleet. Information they gather from the site visits helps them to determine:

- HE needed at the location,
- Types of equipment needed to meet mission needs,
- Condition of HE,
- Best practices and opportunities for sharing HE, and
- Need for realignment of the HE Fleet.

Some best practices to ensure proper utilization and efficiency include:

- Rotate usage of over-utilized equipment/trucks with underutilized equipment/trucks to optimize use of the HE Fleet within an assigned area;
- Make sure HE/truck usage is within the utilization standards we reference in section 4.2 of this document and in 322 FW 1;

- Use a geographical or zoned HE Fleet sharing program whenever practical; and
- Maintain the HE Fleet according to manufacturers' standards.

We expect that the activities we describe above will give us an aggressive monitoring and utilization strategy for the HE Fleet across the Service, and they are likely to result in recommendations to replace or divest stations of HE or trucks. We will dispose of, transfer, or sell underutilized equipment/trucks that have little or no accumulation of hours/miles. Justifications to retain items in a duty station's HE Fleet when they are not adequately utilized must be approved by the Regional Fleet Team in conjunction with the Regional HE Coordinator.

#### **4.4 What options are available to meet HE Fleet needs?**

**A. Government-owned:** To determine if there is a need for the Service to purchase a new or replacement HE/truck, the station manager must provide a cost analysis to the Regional HE Coordinator and Regional Property Manager as part of the fleet justification process. The Regional HE Coordinator and Property Manager use the cost analysis and any other justification provided to make a decision.

**B. Short-term rental:** Short-term rentals are often the most cost-effective solution and a viable alternative to purchasing or long-term leasing. Often they are used by temporary and seasonal employees, volunteers, and contractors who need a unit of HE or a truck for fewer than 120 days. In addition to not increasing our fleet size, short-term rentals reduce the Service's maintenance and ownership costs.

**C. Leased:** Duty station managers can lease equipment through the GSA Interagency Fleet Management System with agreement from the Regional HE Coordinator. The manager must provide a cost analysis to the Regional HE Coordinator to demonstrate that leasing is beneficial and cost-effective for the Service.

There are situations where renting may not be a viable option. After all HE Fleet sharing options have been examined and found untenable, a station manager with solid justification may request a waiver from the Regional and National HE Coordinators to either use the long-term leasing program or add to the station-owned fleet.

**4.5 How does the Service right size the HE Fleet?** Right sizing is simply making sure we have the least number, type, and size of HE/trucks required to meet our mission needs. We need to minimize the HE Fleet size to reflect the most efficient HE/truck fleet inventory required to support mission needs. Proactively managing the size of the HE Fleet should result in lower operational costs, and it allows the Service to receive the greatest potential proceeds from sales by disposing of assets in a timely manner.

**5. HE/TRUCK REPLACEMENT:** The replacement standards in 322 FW 1 are the minimum requirements for age, utilization, and rehabilitation costs before you can replace a piece of HE or

a heavy truck. We may replace HE/trucks at the first occurrence of any one of the three replacement thresholds. Always consider rehabilitation over purchasing for buses and heavy trucks as the most cost-effective investment. Rehabilitation may extend the useful life of costly vehicles and equipment, reducing large procurement outlays. As a general rule, the cost of rehabilitation of a bus or heavy duty truck should not exceed 50 percent of the cost of replacement.

### **5.1 What are the key factors station managers should consider when planning HE Fleet acquisitions or replacements?**

Before beginning to acquire or replace something in a station's HE Fleet, a considerable amount of planning is necessary to ensure compliance with applicable laws, Executive Orders, Government regulations, and Service policies and procedures. These laws, regulations, and policies are designed to ensure full use of the existing HE Fleet and limit procurement to meet essential minimum HE/truck requirements. To determine the need to replace, retain, rehabilitate, or acquire new HE or a truck, station managers must consider the following:

- The need to provide safe, economical, and efficient HE/trucks necessary to meet mission requirements;
- Meeting current EPA emission standards, Service initiatives on carbon reduction, and total life-cycle costs;
- The number of HE/trucks required to accomplish program objectives;
- The type of HE/truck needed to meet the operational requirements of a particular program (minimum capacity and operational performance required);
- Whether alternative types of heavy or small equipment/trucks can provide similar results, while adequately supporting the mission; and
- The potential for sharing HE/trucks by more than one field station or program within reasonable transport distance. The Regional HE Coordinator, along with the stations sharing the equipment, must develop a written agreement for reimbursement of maintenance, services, and related costs.

### **5.2 What are the steps for acquiring or replacing equipment?**

Offices or stations requesting new or replacement HE/trucks should first refer to Sections 4 and 5.1 of this guide, and then follow their Region's guidance for submitting a request to the Regional HE Coordinator to buy equipment. The request must include a completed "Motor Vehicle Justification Form" (3-2476), and a cost analysis (see Exhibit 4 to 320 FW 2 -

<http://www.fws.gov/policy/e4320fw2.pdf>). The Regional HE Coordinator reviews the submission for accuracy and compliance with Service needs, plans, and budget. The Regional Property Manager reviews the submission for compliance with property coding and standards. Station managers should keep the following in mind when preparing justification statements:

**A.** The Regional HE Coordinator may request that the Regional Property Manager dispose of or replace HE or a truck when it meets either the age, utilization, or repair cost minimum standards in 322 FW 1.

**B.** In some situations, they may replace the equipment/trucks before they meet the standards, such as due to:

- Excessive repair costs.
- High utilization hours.
- HE/trucks exposed to harsh environments, rough terrain, or chemical elements (such as salt or sea water) that may become unsafe to operate. Qualified personnel should inspect such HE/trucks to identify necessary repairs. If repairs exceed the limitations in 322 FW 1, the person doing the inspection should prepare a written evaluation to document the request for disposal. Another option under such conditions is to purchase used equipment (if it meets policy standards), or transfer from another station an existing, underutilized HE/truck near the end of its replacement cycle. This is often a better option than purchasing new HE or trucks that will be exposed to continued conditions that lead to rapid deterioration.
- Repair costs impact decisions to repair or replace HE/trucks. Once the repair cost exceeds the economic value of the HE/truck (see 322 FW 1), we replace it, if practical. Any HE/truck that is damaged beyond economical repair limits (either by accident or wear resulting from abnormal operating conditions) may be replaced without regard to the normal replacement standards. Station managers must document damaged condition and over-the-limit repair costs and report them to the Regional HE Coordinator for a final decision about what action to take.

### **5.3 What must the Regional HE Coordinator consider when buying or leasing HE/trucks?**

**A.** They should check for compliance with applicable laws and regulations, Executive Orders, Departmental fleet policies, Service policy to ensure an acquisition or lease meets legal and policy requirements.

**B.** All programs within the Service must check with their Regional HE Coordinator to identify any sharing options or underutilized HE/trucks available within their geographical locations.

**C.** The Coordinator must determine mission requirements and transportation options, ensuring acquisition of the best valued HE with the established Indefinite Delivery/Indefinite Quantity (ID/IQ) contract specifications, body type, size, engine, and optional equipment necessary to meet the mission needs. Considerations include, but are not limited to:

- Location of the manufacturer's dealership relative to the equipment location,
- Availability of service,
- Existing station equipment fleet of a similar brand,

- Return on investment,
- Availability via ID/IQ or Blanket Purchase Agreement (BPA) contracts, and
- Life cycle cost analysis.

**D.** The Coordinator must determine the duration of need, including:

- Short-term (2 years or less) or seasonal use,
- Mid-term use (2 to 3 years), or
- Long-term, frequent use (over 3 years).

**E.** The Coordinator must consider ownership alternatives, such as:

- Use of smaller, pull-type attachments that will meet mission needs,
- Short-term rental for projects with defined end dates (usually 2 to 3 months), and
- Sharing of HE across:
  - Field stations,
  - Complexes,
  - Regions,
  - Geographical zones, and
  - Programs.

**F.** The Coordinator works to minimize environmental impacts by making use of carbon reduction technologies wherever possible, and ordering the most efficient HE/truck that satisfies mission requirements.

**G.** The Coordinator must prepare a cost analysis of options based on total acquisition and operational costs for the determined duration.

**H.** The Coordinator must concur with the approved justification form.

## **6. MAXIMIZING RETURNS FROM HE/TRUCK SALES:**

To minimize the cost of ownership, we must maximize the proceeds from the sales of existing equipment. All HE/trucks identified as needing replacement or that are part of reduction efforts should be sold through GSA Exchange/Sale or traded in to a dealer for a discount on a new purchase. The determination to trade in HE/trucks or sell them using GSA's Exchange/Sale depends on the condition and type of HE/truck, best value to the Government, and the type of work it is designed to perform.

The sale of used HE/trucks in good condition minimizes the costs of ownership and increases the proceeds we get from sales. Proceeds of sales offset the cost of replacing the HE/trucks and enable us to move toward a more fuel efficient fleet. A quicker turnover of equipment also reduces both our carbon footprint and the age of the fleet. Proceeds from sales should be

managed in conjunction with each Region's annual HE/truck funds to improve and maximize fleet management capabilities.

## **7. GREENING THE FLEET:**

When replacing the Service's HE/trucks, we have to acquire engines constructed to the most current emission standards to reduce our carbon emissions by 10% per year through 2020. We should strive to become a Tier 4 emissions HE/truck fleet by 2025. To accomplish this goal, we must:

- Prioritize the replacement or disposal of older HE/trucks over newer equipment/trucks to meet national emission standards;
- Acquire excess property only if it has an engine that is two tier levels better than existing equipment;
  - For example, HE with a family engine emissions at Tier level zero can only be replaced by a family engine emissions at Tier level of 2 or higher. (All acquisitions of surplus HE must be approved by the National HE Coordinator.)
- Look for opportunities to relocate equipment to stations that have older, lower-tiered equipment that can be disposed of when they get the newer replacement.

## **8. REPLACING AND EQUIPPING SPECIAL CLASS VEHICLES**

**8.1 What are the special considerations for the Fire Program?** The Service Fire Management Program manages special class vehicles and equipment through a Working Capital Fund (WCF) fleet replacement program. The replacement cost of selected vehicles and equipment are amortized over the established service life of the equipment class, and the money for replacement is set aside to create a uniform replacement cycle. When equipment is replaced, the surplus apparatus must be sold to recuperate the remainder of the new apparatus purchase.

Fire management special class apparatus are ordered with a robust standard option package. An additional suite of options are available for selection within each of the fire apparatus classes when ordering replacements through the Fire Equipment Ordering System (FEOS).

**8.3 What are the considerations for fish distribution equipment?** We strongly encourage duty stations to share specialized distribution vehicles within and across Regions. Depending on stocking needs and fish health concerns, sharing vehicles may be as easy as following [Hazardous Analysis & Critical Control Points](#) (HACCP) procedures and adjusting stocking dates.

**8.4 What other specialized vehicles might the Service replace?** There are a number of other HE/ trucks in the current fleet, such as large forestry cutters and aquatic and long reach



excavators, that are atypical of the overall fleet. They tend to be larger in size and used less on a regular basis. We must continually evaluate the use of these vehicles to assess whether they should be specifically categorized and treated differently in the Service utilization and replacement program.

Attachment 1: Service Heavy Equipment Utilization Standards (from 322 FW 1)

Equipment Type	FWS Minimum Annual Utilization (hours)	FWS Standard Annual Utilization
Ag Tractors	150	300
Backhoe Loaders	125	250
Hydraulic Excavator	150	300
Mini Excavator	150	300
Crawler Dozer	125	250
Wheeled / Crawler Loader	150	300
Motor Grader	150	300
Skid Steer and Compact Track Loader	125	250
Self-Propelled Scraper	150	300
Specialty Tracked	125	250
Forklift	100	200

**One-Time Repair Limit in Percentage of Replacement Cost**

Age of Equipment/ Truck in Years	Maximum Percentage of Repair to Value Per Job	
	Heavy Duty Motor Equipment	Buses and Trucks > 7711 GVWR (%)
1	50	50
2	45	45
3	40	40
4	35	35
5	30	30
6	25	25
7	20	20
8	15	15
9+	10	10

Following is an example of how to use this table:

- A 2013 Dozer needs repairs in 2015.
- The equipment is 2 years old, which equals 45% maximum repair limit per job based on replacement cost.
- The replacement cost is \$145,000.
- $45\% \times \$145,000 = \$65,250$ .
- Repairs up to \$65,250 can be authorized for repair of this Dozer.

Attachment 3. Minimum Replacement Standards (from 322 FW 1)

<b>FWS Minimum Heavy Equipment Replacement Standards</b>		
<b>Equipment Type</b>	<b>Years<sup>a</sup></b>	<b>Hours / Miles<sup>a</sup></b>
Ag Tractors	6	2,500 hrs
Backhoe Loaders	8	2,000 hrs
Hydraulic Excavator	8	2,500 hrs
Mini Excavator	7	1,500 hrs
Crawler Dozer	8	2,500 hrs
Wheeled / Crawler Loader	9	3,000 hrs
Motor Grader	10	3,000 hrs
Skid Steer and Compact Track Loader	6	1,500 hrs
Self-Propelled Scraper	8	3,000 hrs
Specialty Tracked	8	2,000 hrs
Forklifts	8	2,500 hrs
Type 6 Fire Engines (WCF Only)	10	2,000 hrs
Type 4 Fire Engines (WCF Only)	12	2,400 hrs
Type 3 Fire Engines(WCF Only)	12	2,400 hrs
Special Purpose Water Tenders (WCF)	15	3,000 hrs
<b>Trucks</b>		
≥ 35,000 lbs GVWR	9	80,000 mi

4-wheel or 6-wheel drive ≥ 35,000 lbs GVWR	6	40,000 mi
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<sup>a</sup>A minimum standard is stated for years, hours, and miles. Use the one that occurs first.

- Consider rehabilitating buses and heavy trucks rather than procuring new vehicles.
- Rehabilitation may extend the useful life of costly equipment and reduce or delay large equipment/truck procurement outlays.
- Generally, HE Fleet rehabilitation costs should not exceed 50 percent of the replacement cost.
- If HE or HE Fleet has been wrecked or damaged beyond economical repair limits (including wear caused by abnormal operating conditions), these replacement standards may be waived by the Regional HE Coordinator.
- We may retain HE/trucks that are usable and in workable condition even though the standard allows replacement, if we can operate the HE/truck safely without excessive maintenance cost or substantial reduction in resale value.