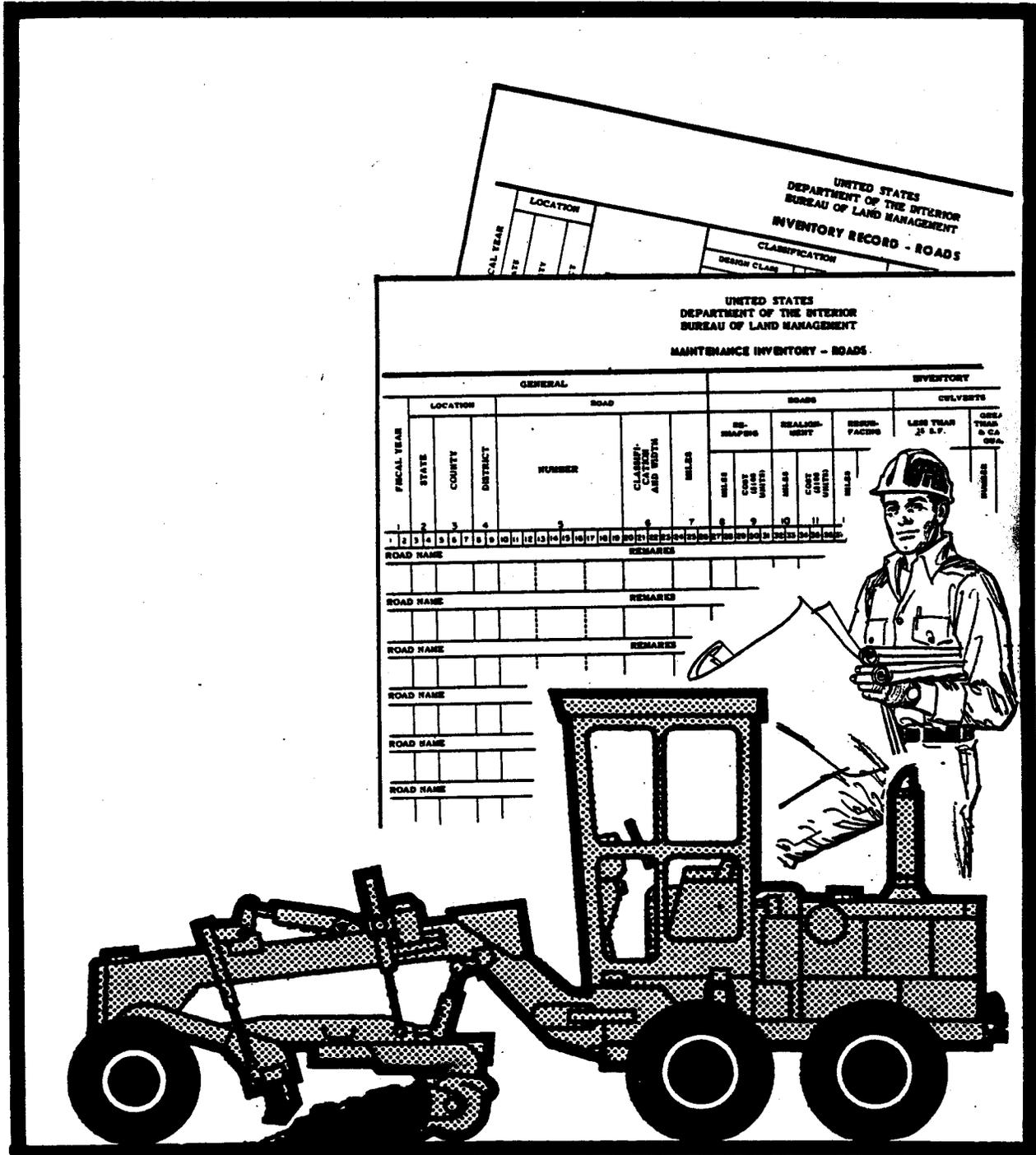


ROADS

Inventory and Maintenance



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INVENTORY AND MAINTENANCE

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CHAPTER 1 - INVENTORY AND MAINTENANCE LEVELS

I. INTRODUCTION. This Chapter provides broad engineering guidelines and procedures for conducting inventories and establishing maintenance levels in support of transportation management on the Bureau of Land Management's (BLM) roads. These guidelines help assure uniformity throughout the BLM in collecting, preparing, and presenting technical data for transportation management.

II. INVENTORY. If the Bureau appears to have an interest in a road or segment of a road, complete an inventory of the physical and legal elements of the road (see Manual Section 9113.13). The initial inventory should be done on all BLM roads, regardless of the present use and condition; normally, the initial inventory is completed before making the functional classification.

A. Inventory Priorities. Each Office establishes inventory completion priorities based upon identifiable resource management needs. In the absence of other identifiable needs, use the following priorities.

1. Resource Development Areas such as high energy development areas.
2. Inventory based upon other resource inventory work being done in a planning unit.
3. In the absence of other priority considerations, use the functional classification standard in Manual Section 9113.16 in conjunction with any legal access requirements. Proceed with the inventory of Bureau roads located on BLM-administered land, acquired easements, and on private and State lands on which easements are planned.

Other roads located on Bureau administered land, which may or may not be part of the Bureau road system (i.e., private or other agency roads constructed as part of a reciprocal right-of-way agreement, or authorized under the Bureau right-of-way and permit system) are inventoried next. Other roads located on Bureau-administered land, which are not a part of the Bureau's road and/or transportation system, such as those constructed in trespass or abandoned by other entities, are inventoried last. Do not inventory non-Bureau roads which are on State or other agency road systems.

B. Information Sources. The first step is to use information available in the District Offices; proceed to outside sources, if adequate information is not available; follow by ground verification.

1. **District Office.** Existing Transportation Plan, Master Title Plats, U.S. Geological Survey (USGS) Quads and Orthophoto Maps, Aerial Photography, Office Records on authorized/permitted roads, Resource Area planning documents, District Sign Inventory Records (e.g., Sign Installation and Maintenance Record, BLM Form 9130-4). District employees are also a good source of information that is often overlooked.

2. **Other Federal Agencies.** Maps, Photography and/or Transportation Plans from other agencies, such as U.S. Forest Service, USGS, National Park Service, Bureau of Indian Affairs, and Bureau of Reclamation.

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3. State and Local Governments. Maps, Photography, Road Maps, County Road Records.

4. Others. Consulting engineering firms, exploration and development companies, and grazing leases.

C. Inventory Completion. The present transportation plan (maps and baseline data) can be used to provide information for inventory completion.

1. Map Identification. As part of the initial cycle of the Bureau Planning System, those roads or ways in the resource area, whether the road (way) consists of tracks only, is graded and drained, is gravel surfaced, or is paved, are recorded on a map.

2. Basic Route Data. At this level, statistical information is compiled on those roads identified by the Resource Management Plan (RMP) or Management Framework Plan (MFP) as necessary to implement the RMP/MFP. As the roads are functionally classified and incorporated further into the Bureau's Transportation Plan, successive levels of inventory may be required to make planning or road transportation management decisions. Frequently, this information is compiled directly from USGS Quads or Orthophoto Quads. Followup, where necessary, with a Field reconnaissance to collect missing information.

3. Detailed Management Inventory. This level of inventory detail is used for programming and operational management decisions for those mainline roads in the Bureau's Transportation Plan. NOT all roads on the Bureau's Transportation Plan need or will warrant a complete inventory at this level of detail.

D. Inventory Content. States have the option of varying inventory content to fit their specific program needs, within the available options of the computer data fields.

1. Map Identification. Using Manual Section 9113.11 as a guide, compile information on a base map.

2. Basic Route Data. Update or complete basic route data on new or previously inventoried roads. Information generally recorded in this category: State, District, County, Resource Area, Township, Range, Section, Road Number, etc.

3. Detailed Management Inventory. A detailed management inventory of those roads on the Bureau's Transportation Plan is an inventory that would denote such items as the physical features, jurisdictional boundaries, and managerial or administrative controls, within and adjacent to the roadway that provides resource managers with data for programming and operational management decisions. The inventory is made once and is usable until there is a change in inventoried features by addition, modification, replacement, or removal.

E. Inventory Storage. The Division of Engineering Systems (Denver Service Center (DSC), D-420), Engineering Computer Applications (ECA), provides coordination and technical assistance for utilizing the Forest Service System at the Fort Collins Computer Center (FCCC). States, Districts, or Resource Areas, as appropriate, are responsible for data entry and updating the inventory data.

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Offices with existing systems will not be required to change over immediately. Any future change should comply with or be compatible with this system.

1. Maps. States have the option of using their own map format for the preparation of Transportation Maps.

2. Inventory Data. Inventory data point of entry will be at DSC (D-420) through Engineering Computer Applications. Inventories will be entered and maintained by the State Office, Districts, or Resource Area, as appropriate. The software program will be maintained by DSC (ECA).

F. Road Summary. Maintain sufficient inventory data from which to generate, by Resource Area, District, or State, summaries of roads by condition categories and maintenance levels. Additional summaries can be obtained for any information from the data components through the System 2000 at the FCCC.

1. Road Summary Revisions. Maintenance of the summaries is a continuing effort. Bureau employees should be alert to acquisitions, construction, reconstruction, or abandonment. These events require updating of inventory records and subsequent revision of inventory summaries.

2. Summary Information Required. Statewide totals, by mile, consisting of road summaries by road condition categories and maintenance levels.

a. Condition Categories.

Primitive - no improvement.

Natural Earth Surface.

Aggregate Surface.

Road-Oil-Mat Surface.

Plant-Mix Asphalt Surface.

Concrete (Portland Cement).

b. Maintenance Levels.

(For an expanded explanation of each maintenance level, see section III)

Level 1 - Custodial care to protect road investment and/or adjacent resources.

Level 2 - Minimum maintenance. Typically, a seasonal road providing limited passage of traffic.

Level 3 - Maintained as needed. A low standard, low volume road, typical of a resource road.

Level 4 - Scheduled maintenance. A medium standard, medium volume road, typical of a local road.

Level 5 - Scheduled maintenance with a preventive maintenance program. A high standard, high volume road, typical of a collector road.

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III. MAINTENANCE LEVELS.

Maintenance is the upkeeping of the Bureau's road system, including surface, shoulders, parking and side areas, structures, and such traffic control devices as are necessary for the safe and efficient utilization of the road system. Follow guidance in Manual Section 9104 for the establishment of a maintenance program.

A. Data Source. Use data collected as part of the road inventory for completing maintenance planning.

B. Maintenance Levels. Based upon functional classification (see Manual Section 9113.16) and resource management needs, each road will be assigned a maintenance level. Maintenance levels may vary from year to year as identified resource management needs change.

1. Level 1. This level is basic custodial care as required to protect the road investment and/or adjacent lands and resource values. Normally, these roads are blocked and not open for traffic or are open only to restricted traffic. Include primitive roads (way) here.

a. Roads typical of this level. Roads that have served or were constructed as fire trails, access to discontinued-use administrative areas, logging spurs on completed sales, occasionally discontinued access to energy/mineral exploration and development areas, and primitive roads (way) receiving no maintenance.

b. Maintenance standard. Maintain culverts, waterbars, and other drainage facilities. Slides, fallen trees, and brush would be left unless they affected roadbed drainage. Closure and traffic restrictive devices would be maintained. Primitive roads (way) would receive no maintenance.

2. Level 2. This level is used on roads where management requires a road be opened seasonally for limited passage of traffic. Traffic is generally administrative with some minor specialized use, or moderate seasonal use.

a. Roads typical of this level. Roads serving firewood permits, environmental study areas, hunter access, and ORV areas.

b. Maintenance standard. Minimum maintenance, including brush and obstruction removal, maintenance of drainage facilities, and minimum maintenance of road prism.

3. Level 3. This level is for roads which are seasonal in nature or occasionally open year around. Traffic volumes approach an Average Daily Traffic (ADT) of 15 vehicles. These roads may require a seasonally adjusted level of maintenance. (See Manual Section 9113.17.)

a. Roads typical of this level. Low standard, low volume, single lane, natural earth surface (dirt) roads, typical of a resource road, serving low-use recreation areas, minor timber-sale areas, or other resource uses.

b. Maintenance standard. Maintain as needed. Keep drainage functional and maintain roadway prism. Maintain sight distance and provide concern for driver safety and convenience.

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4. Level 4. This level is used on roads which are generally kept open year around or a high-use seasonal road, and have a high concern for driver safety and convenience.

a. Roads typical of this level. Medium volume, double-lane roads consisting of a high standard natural earth surface (dirt) road, aggregate surface road, or occasionally a bituminous surface road. Typical of this road would be a local road that serves as an artery to other road networks; serves medium to high-use recreation areas and resource development areas, such as energy and timber production.

b. Maintenance standard. The roadway is maintained on a scheduled basis. May have a preventive maintenance program established. A greater concern for driver safety and convenience. Problems are repaired as soon as discovered.

5. Level 5. This level of maintenance is for those collector aggregate or bituminous surface roads with an ADT range between 15-100 per day and design speeds of 55 mph. Safety and comfort are important considerations.

a. Roads typical of this level. Collector roads serving as arteries and access to major recreation complexes, where the safety and comfort of the using public is a prime consideration. These roads would also include those resource production roads where heavy traffic is the norm.

b. Maintenance standard. In addition to a scheduled maintenance program, these roads have a preventive maintenance program established to maintain the integrity of the system.

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CHAPTER 2 - EXCHANGE OF ROAD MAINTENANCE

I. INTRODUCTION. This Chapter provides broad engineering guidelines and authorities for those Bureau offices wishing to pursue and/or implement agreements for the exchange of road maintenance. This Chapter is issued for the guidance of Resource Managers, District Engineers, and other BLM personnel having program responsibility for the maintenance of the Bureau's road system. A Road Maintenance Agreement is best executed at the local level by Field personnel familiar with the "on the ground" conditions and having a first-hand knowledge of what needs to be accomplished.

II. FEDERAL INTERAGENCY AGREEMENT.

A. Purpose. The purpose of this section is to provide authorities and procedural guidelines for completing an Interagency Agreement and Road Maintenance Agreement between Federal agencies, based upon the accompanying Policy Statement, Model Interagency Agreement, and Model Road Maintenance Agreement (see Appendix 1).

B. Criteria and Considerations for Developing an Agreement. Offices desiring to develop an Interagency Agreement utilizing the Model Agreement, Appendix 1, should be guided by the following general considerations.

1. Agreements are to be flexible and optional and should not create more paperwork than necessary.

2. Agreements should attempt to minimize the paperwork required to track projects and funds which might be involved.

3. Road maintenance needs are dynamic, and participating agencies must be cognizant of changing conditions.

4. Agencies are encouraged to share and/or exchange road maintenance work in those situations where it is advantageous to both agencies, providing the original intent of the proposal encouraging participation, rather than being mandatory, is adhered to.

5. Cooperating agencies are to set their own level of participation.

6. Agencies must still comply with other authorities relative to the use of their funds.

7. Opportunities for effective exchange of maintenance operations are limited, generally short segments of road along administrative boundaries.

8. The most effective exchange of maintenance operations is handled at the local level between agency representatives who are both intimately familiar with the local road conditions.

9. Exchange of funds between agencies as compensation for performing work under a road maintenance exchange agreement has proven time consuming and somewhat complicated, with deadlines missed during periods of ideal moisture conditions for road maintenance; therefore, agreements exchanging equal work would be the least time consuming and the most practical.

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C. Agreement Developmental Language. The following general developmental language is for the guidance of managers wishing to develop an agreement.

1. Authority. The following are applicable Bureau authorities for the exchange of road maintenance activities through the execution of an Interagency Agreement and the completion of a Road Maintenance Agreement between Federal agencies.

a. Federal Land Policy and Management Act of 1976; P.L. 94-579, 90 Stat. 2743; and 43 U.S.C. 1701 et seq., October 21, 1976.

b. Economy Act (as amended), 31 U.S.C. 1535-36 (formally codified at 31 U.S.C. 686).

c. The following Manual Sections provide additional authorities, some of which may be applicable on a case-by-case basis. Authorities cited in the following Manual Sections are too numerous to repeat herein. The preparer of an Interagency Agreement should consult these referenced Manual Sections.

(1) 1780 - Cooperative Relations.

(2) 1785 - Relationships with State and Local Governments.

(3) 1787 - Reimbursable Technical Services.

(4) 9113 - Roads (authorities and appendix sections).

D. Benefits and Compensation. Applicable method(s) of compensation or benefits to be derived from the exchange of road maintenance activities (see Appendix I) are as follows:

1. On equal-value basis.

2. By standard agency procedures for reimbursement.

3. Furnishing supplies or materials for incorporation into the road on which the agencies are cooperati- g.

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**POLICY ON INTERAGENCY
EXCHANGE OF
ROAD MAINTENANCE**

RELATING TO THE ESTABLISHMENT OF A POLICY ON INTERAGENCY EXCHANGE OF ROAD MAINTENANCE FOR THE MUTUAL BENEFIT AND BETTERMENT OF PARTICIPATING AGENCIES.

The HEREAFTER, signatory Federal agencies or departments having responsibility for road maintenance activities associated with the development, production, utilization, or protection of federally administered lands and land resources, subscribe to the following Policy Statement:

EXCHANGE OF ROAD MAINTENANCE RESPONSIBILITIES OR MAINTENANCE OPERATIONS BETWEEN FEDERAL AGENCIES, THAT CONSERVE AND PROTECT THE RESOURCES, PROMOTE OPERATIONAL EFFICIENCIES, PROVIDE FOR USER SAFETY, AND PROVIDE OTHER PUBLIC BENEFITS, ARE TO BE ENCOURAGED.

Major Principles and Standards

1. Agreements for the exchange of maintenance activities shall apply to Federal Agency Roads.
2. Exchange of maintenance activities between agencies must be in compliance with the Economy Act of 1936, as amended (31 U.S.C. 1535-36) or other available authorities.
3. Agreements for the exchange of maintenance activities are to promote operational efficiencies by combining similar or like work across administrative boundaries.
4. Maintenance activities are to be conducted so as not to contribute to the unacceptable degradation of the environment.
5. Road maintenance activities are to be conducted in a manner that provides for user safety.

Policy Implementation

To the extent practicable, this policy shall be implemented by the execution of an Interagency Agreement between agencies wishing to cooperate on road maintenance activities.

Interagency Agreement

The Interagency Agreement is an enabling document which provides an umbrella for the local agencies to enter into a simple, yearly, seasonal, or periodic Road Maintenance Agreement.

Road Maintenance Agreement

1. Road Maintenance Agreements are the means by which agencies retain the flexibility to make periodic localized changes within the working structure of the Interagency Agreement.
2. Road Maintenance Agreements between agencies implementing this policy will probably be the most successful if they reflect these guidelines:
 - a. Encourage existing formal agreements between agencies that provide for a cooperative effort on road maintenance to continue.
 - b. Formalize existing informal maintenance agreements or understandings between local agency offices to avoid misunderstandings or confusion, and provide a record for future cooperative efforts.
 - c. Handle the exchange of maintenance activities at the local level between agency representatives who are intimately familiar with the local road conditions.
 - d. Opportunities for effective exchange of maintenance are generally limited to short segments of roads along or near administrative boundaries.

Model Agreements

Agencies authorized to exchange road maintenance responsibilities or operations are encouraged to execute an Interagency Agreement patterned after the Interagency Road Maintenance Agreement, Exhibit A; and Road Maintenance Agreement, Exhibit B.

IN WITNESS WHEREOF, the parties subscribing to this policy statement have executed the same as of the last date written below.

<p><u><i>Arvid J. Beutner</i></u> Director, Bureau of Land Management</p>	<p>JAN 30 1985 Date</p>
<p><u><i>J. Susan Hester</i></u> Acting Director, Fish and Wildlife Service</p>	<p>FEB 15 1985 Date</p>
<p><u><i>Russell E. Dickenson</i></u> Director, National Park Service</p>	<p>2-19-85 Date</p>
<p><u><i>Sheldon G. Kresky</i></u> Deputy Assistant Secretary - Operations, Bureau of Indian Affairs</p>	<p>2/20/85 Date</p>
<p><u><i>Tom Stevens</i></u> Chief, Forest Service</p>	<p>3/14/85 Date</p>

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EXHIBIT A

MODEL INTERAGENCY
ROAD MAINTENANCE AGREEMENT

(Example)

INTERAGENCY
ROAD MAINTENANCE AGREEMENT
BETWEEN_____
and

I. Purpose. The purpose of this agreement is to establish interagency procedures for the maintenance of road(s) belonging to another agency through execution or exchange of road maintenance responsibilities or operations for the mutual benefit of the cooperating agencies.

II. Authority. (Cite agencies' authority here.)

III. Definitions. For the purpose of this interagency road maintenance agreement, the following terms are defined:

Federal Agency Road. Any road under the jurisdiction of the management agency, where the control and use of the road is at the discretion of the management agency.

Agency. Any Federal department, bureau, office, service, or other independent Federal office or entity charged with the management of and/or having jurisdiction over the development, production, utilization, and protection of federally administered lands and land resources.

Interagency Agreement. A written document between Federal agencies having authority to commit themselves to setting forth a policy covering respective or mutual goals and the manner by which such responsibilities will be carried out.

Maintenance. The work required for the upkeep of the road(s) and support facilities to an agreed upon condition standard as is necessary for safe and efficient utilization.

IV. Joint Responsibilities.

Meet annually for coordination and/or development of a Road Maintenance Agreement to implement this Interagency Agreement.

Maintain close contact and communication with the other party(ies) to this agreement during period when work is being accomplished under terms of this agreement, to insure that work is consistent with terms and intent of agreement.

EXHIBIT A

Each party to the agreement shall designate a point of contact, if other than official executing agreement.

Shall notify the other parties to the agreement of any changed conditions.

Refer any event, dispute, or other issue, likely to cause a stalemate, to a higher echelon for resolution.

- V. Agreement Implementation. The implementation of this agreement is to be accomplished through the development and execution of a Road Maintenance Agreement (Exhibit B) between local agency offices. The Road Maintenance Agreement is a periodically developed appendix to the Interagency Agreement, whereby changes in the working structure of the Interagency Agreement may be accomplished.
- VI. Agreement Forms. The Road Maintenance Agreement (Exhibit B) shown at the end of this section, is an approved format, but may be revised to provide for additional cooperative effort. Revisions shall be made and executed in advance of work or activities to be performed subject to agency review and approval at the signatory level of the Interagency Agreement.
- A. Road/Facility. Each party to the agreement shall determine that facility(ies) named in the agreement are properly described, located on a map or otherwise identified, and that there is no duplication of names, route numbers, project numbers, or identifiers that might lead to confusion or a misunderstanding.
- B. Maintenance Plan. The maintenance plan should clearly define the standards or results desired and any special condition to be observed during the agreement term. Maintenance activities routinely performed, whether by exchange on an equal value basis or monetary reimbursement basis, generally fit into one or more of the following categories:
1. Routine maintenance of existing roads.
 2. Maintenance of structural facilities that are part of the road.
 3. Maintenance during periods of other than normal use (e.g., timber sales, mineral sales).
 4. Seasonal or partial maintenance.
 5. Extraordinary maintenance (e.g., overweight or oversize).
- C. Benefits and Compensation. Work entered into as a result of this agreement may be compensated for, based on appropriate authorities cited in Section II, in one or more of the following ways:

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EXHIBIT A

1. Exchange of road maintenance operations on an equal value basis. Value can be established on equal units of work, mile for mile; hourly trade-off based on equipment hours to do a standard job; or each performing the maintenance on a rotational basis (monthly, seasonally, annually).
2. Use of standard agency procedures for the reimbursement or advance of funds between agencies. (Economy Act requirements can be met.)
3. Furnish supplies or material to the performing agency for incorporation into the road that the agencies are cooperating on.

VII. General Provisions.A. Expenditure of Appropriated Funds.

All performance is subject to availability of appropriated funds and existing statutory authority.

B. Termination of Agreement.

This agreement may be terminated by any of the parties to the agreement upon giving ninety (90) days written notice to other parties, provided that the termination notice provides sufficient time for an orderly close out of work in progress.

C. Reviews.

This agreement will be reviewed every three (3) years to determine if changes should be sought.

D. Renegotiation.

Renegotiation for any part of this agreement may be initiated at any time by any party to the agreement. Any changes in the provisions of this agreement which are necessary will be made by formal amendment.

E. Limitations.

Nothing in this agreement is to be construed as conflicting with existing laws, regulations, and prescribed agency responsibilities. This agreement does not include damage to, or loss of, material stockpiles; maintenance of or repairs caused by natural disasters.

EXHIBIT A

Agencies are not responsible for the lack of accomplishment or the timely completion of maintenance activities or other user inconvenience, unless such delays have previously been made a condition of the maintenance plan. Agencies are responsible for insuring that user and public safety is not jeopardized by maintenance activities resulting from this agreement.

Reimbursement for the performance of maintenance activities under this agreement shall be subject to the provisions of the authorities cited under Section II of this agreement.

IN WITNESS THEREOF, the parties have executed this Interagency Agreement as of the last date written below:

(Agency)

(Agency)

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

EXHIBIT B

MODEL
ROAD MAINTENANCE AGREEMENT

(Example)

ROAD MAINTENANCE AGREEMENT

Date _____

The _____ and _____
(Agency) (Agency)
in accordance with terms and conditions contained in the interagency Road
Maintenance Agreement dated _____, hereby agree to cooperate
on road maintenance activities for the mutual benefit or betterment of the
agencies or agencies programs.

Road/Facility: Name and Number

Maintenance Plan:

Benefits and/or Compensation:

Location as shown on attached map.

(Drawing No. _____, name, date, or other identification)

- A. Legal Description _____ (if applicable)
- B. County _____
- C. Appropriate maps or right-of-way plat attached? _____ (if applicable)

EXHIBIT B

D. Right-of-way width _____ acreage _____
(if applicable)

E. Length _____
(if applicable)

Specify period of time for which maintenance is to be performed.

Perpetual Term _____
(Years) Other _____

Explanation _____
(if applicable)

Maintenance Frequency _____
(if applicable)

Specification required?

Not required
 Attached On file at _____
Identified as _____

A-76 Analysis required?

Not required On file at _____
 Attached Identified as _____

Environmental assessment required.

Not required
 Attached On file at _____
Identified as _____

EXHIBIT B

Regulatory clearance checklist required.

Not required

Attached

On file at _____

Identified as _____

Other conditions. _____

Work accomplished by?

Force account

Contract

Estimated cost of work? _____ / _____
(Dollars) (Time Period)

Third party contributions? _____
(Dollars)

(Agency)

(Agency)

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____