

North Latah County Highway District Transportation Plan 2006

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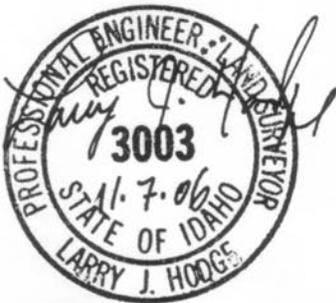


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Introduction

The North Latah County Highway District Commissioners recognized in 2002 that a transportation plan would benefit the organization. After two unsuccessful applications for federal-aid planning funds, the highway district allocated local funds in 2005 for this high-priority project. The transportation plan will increase the ability of NLCHD to best serve the needs of its patrons, and will help ensure the best use of all available funding resources. The Plan will enable the highway district to more successfully compete for alternate funding sources.

Historically, highway districts in Idaho could elect to receive a portion of their annual funding from the State through the “Exchange Program” by foregoing federal-aid projects. Exchange program funds were still subject to federal funding, and awarded on a non-competitive basis. Exchange funds made up approximately 3 % of NLCHD’s annual budget. Beginning in the year 2003, the exchange program was eliminated and replaced with the Local Rural Highway Investment Program (LRHIP). LRHIP funds are not guaranteed, and instead are awarded through a competitive application process. This transportation plan will provide the highway district guidance in project selection for making applications. The plan will make the district’s project applications stronger, as they will conform to the five-year plan contained within this document. This planning effort will ensure LRHIP funds will be used effectively and efficiently. The NLCHD anticipates the public will support the district’s future federally funded projects because public input was actively sought throughout the formulation of this transportation plan. The public’s involvement in the planning process is described in the subsection below titled “Agency and Public Involvement.”

STUDY AREA

The study area focused on transportation systems inside the boundaries of the North Latah County Highway District, see Figure 1-1. NLCHD is located in Latah County in north central Idaho. It is bounded by the Idaho/Washington state line to the west, Clearwater County on the east, Benewah County to the north and South Latah Highway District to the south. The highway district’s official map was adopted in 1986.

The current North Latah County Highway District and South Latah Highway District boundaries were determined in 1971 when several smaller highway districts were consolidated. The district maintains approximately 590 miles of roadway, 461 of which are unpaved, and 129 paved. The roadways within the district include paved, gravel, and dirt roads. NLCHD maintains a few road segments outside their boundaries in the jurisdiction of South Latah Highway District (SLHD). Likewise, SLHD maintains a few roadway segments inside NLCHD boundaries. Maintenance trade agreements are in place between NLCHD and SLHD.

US Highway 95, State Highways 8, 6, 3, and 99 pass through the district and are maintained by Idaho Transportation Department (ITD). Within the NLCHD, highways connect population centers and pass through the jurisdiction to population centers in other jurisdictions. Development is most dense along the highway routes. US Highway 95 passes through the jurisdiction on the west side, and is the only continuous north–south connection for the State of Idaho. State Highway 3 is the main north-south corridor in the eastern portion of the district. It connects Kendrick and Juliaetta in the South Latah Highway District to Deary and Bovill, and then extends northward towards St. Maries. State Highway 99 is another short north-south route connecting Kendrick and Juliaetta to Troy.

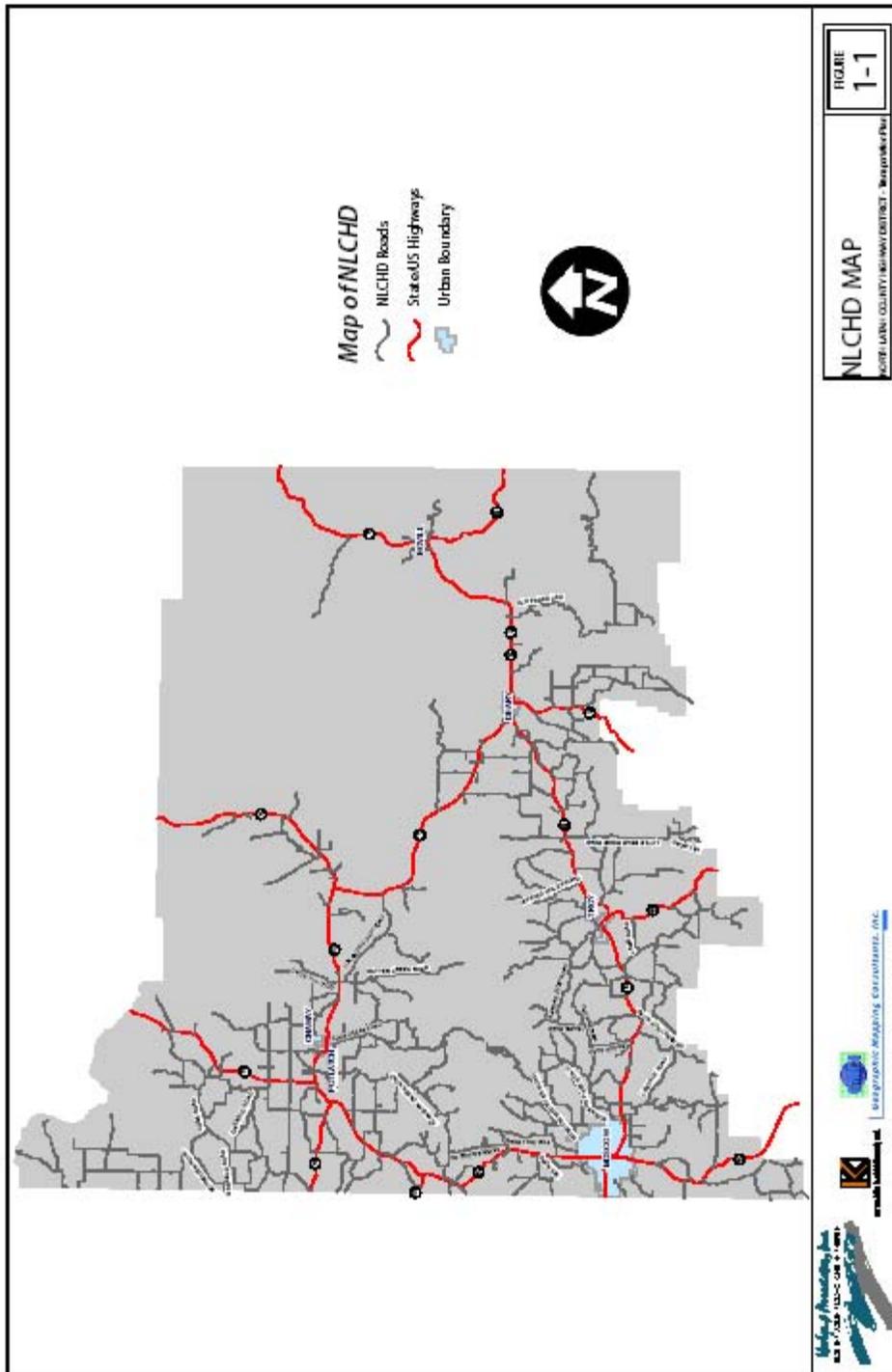
State Highway 8 is the main east-west corridor in the southern portion of the district. It connects to Pullman in Washington State, passes through Moscow, Troy, Deary and Bovill, and continues beyond

the eastern boundary of the highway district to the small town of Elk River (population 142). State Highway 6 is the main east-west corridor in the northern portion of the district. It extends beyond the western boundary connecting Palouse, WA to Potlatch-Onaway, and continues eastward through Princeton and Harvard, where it turns northward and extends beyond the northern boundary to St. Maries, ID outside the jurisdiction.

The NLCHD boundary surrounds approximately 864 square miles, including a highly productive agricultural area for wheat, dry pea, and lentil crops (the Palouse region) in the west portion; and a more mountainous forested region in the eastern portion. Moscow, located in the southwest quadrant of the district, is the major center for agricultural activities, and the major population center. Logging is the main economic activity in the eastern portion of the district. The population of Latah County (which includes the South Latah Highway District as well) is 35,000 according to the 2000 census. Moscow is home to the majority of the population at 21,290. Combined other incorporated towns in the county amount to approximately 4,000 of the county's population. Unincorporated towns and widely-spaced homes and farmsteads in the outlying rural areas account for the remaining population.

The highway district does not have jurisdiction over transportation systems within the city limits of Moscow, Troy, Potlatch, Onaway, Deary, and Bovill. These individual cities plan and maintain the transportation systems within their respective city limits. Comprehensive plans for Moscow, Troy, Potlatch, and Deary have been developed and were studied and considered in the formulation of this plan. In addition to the Comprehensive Plans, traffic data, and information about pedestrian and bicycle facilities near the city limits were gathered and considered in the formulation of this plan. However, this plan does not make recommendations for projects within city limits.

Areas outside of the district's boundary were considered during this planning process, because some of the transportation activity in the district is through-traffic to other population centers such as Pullman, Lewiston, Genesee, Kendrick-Juliaetta, St. Maries, and Spokane.



PLAN STRUCTURE AND ELEMENTS

The development of North Latah County Highway District's Transportation Plan began with an inventory of the district's existing transportation system. The inventory is documented in Section 2 of this report. In general, the consulting team conducted an inventory of the existing roadways maintained by the NLCHD and their corresponding traffic volumes, existing culverts, bridges, and traffic signs. The information collected by the consulting team was incorporated into a GIS database. In addition to the inventory of the physical conditions of the NLCHD transportation system, existing planning documents and procedures related to NLCHD were identified, researched, and reviewed as part of this initial assessment. Concurrent with the inventory of existing conditions and review of relevant plans and policies, public input was collected and summarized to apply towards priority planning. A more detailed description of the process used to solicit public input is found in the next subsection of this report titled "Agency and Public Involvement."

Upon completion of the existing conditions analysis, the focus of the project shifted to forecasting future population growth, subsequent travel demands, and corresponding long-term future transportation system needs in NLCHD's jurisdiction. Section 3 of this plan documents the forecast for future conditions and travel demands.

Section 4 documents the development and prioritizations of alternative measures to mitigate deficiencies identified in Sections 2 and 3. Proposed improvement projects, standards, and policies were verified to meet the goals identified by the Advisory Committee and NLCHD Commissioners. Each alternative was considered based on safety, public needs, capacity, functionality, and feasibility. These alternatives were then compared to a criteria established for evaluating proposed roadway upgrades in the NLCHD. The proposed improvement alternatives that should be considered for incorporation into the NLCHD's long-term transportation system reflect a consensus by the NLCHD Commissioners, the consulting team, and the advisory committee.

The Transportation Plan, Section 5, is the summation of all the proposed improvements aimed at addressing both the identified deficiencies and forecasted concerns of the NLCHD. In addition to the proposed improvement projects, this transportation plan includes changes to roadway functional classifications, recreational bicycle and pedestrian connections, consideration of maintenance practices, and highway district policies and standards. The advisory committee reviewed this plan, and the consulting team incorporated comments into this document.

The Capital Improvement Plan (CIP) presented in Section 6 provides a summary of the proposed prioritization, available funding sources, and schedule of identified transportation system improvements and capital investments. Because the emphasis of the NLCHD is maintaining existing roads rather than building new roads, capital projects intended to improve maintenance operations and asset management have been incorporated into the CIP.

AGENCY AND PUBLIC INVOLVEMENT

Agency and public input was accomplished in several ways. First, an Advisory Committee was established. Second, surveys were utilized to gather additional input. Surveys were given to the NLCHD commissioners and staff, advisory committee members, Latah County emergency service personnel, US rural postal carriers, bus drivers and were made available to the general public during presentations. A third technique was the attendance at community events to gather additional general public input. Attendees at the events were informed about the NLCHD transportation plan process and encouraged to offer their comments, concerns, and suggestions.

ADVISORY COMMITTEE

The advisory committee's purpose is to provide critical review the consulting team's findings and recommendations, and provide input throughout the development of this document. The highway district commissioners assisted the consulting team in formulating the committee, which consisted of 25 community members. The committee members included representatives from Moscow, Deary, and Potlatch, School Districts, ITD, other public agencies and services, private industry, and representatives from the farming community. The commissioners recruited members that represented a thorough cross-section of people who use district roads. Committee members were encouraged to solicit input from their friends and associates and share the input with the rest of the committee.

Four advisory committee meetings were held during the development of this plan. The first meeting provided an orientation to the project and the proposed schedule. Committee members made comments about the existing transportation system to begin identification of public issues and concerns. The inventory of existing conditions and analysis was presented at the second Advisory Committee meeting. In addition, all public comments received from presentations made at community events were presented, and the advisory committee prioritized the public comments. At the third meeting, growth projections and proposed alternatives were presented. Comments from the advisory committee were incorporated into the draft transportation plan document. The methodology for ranking and prioritizing proposed improvement projects was reviewed and modified by the advisory committee at the fourth meeting on September 13, 2006. The draft document was distributed to the committee on October 11, 2006. Comments by the advisory committee about the draft document were received until October 25, 2006, and incorporated into the final published version of the transportation plan document.

The committee consisted of the participants listed on the following page. NLCHD commissioners and staff are not included in this table, although they participated in the advisory committee meetings.

Table 1-1
Advisory Committee Participants

Joe Anderson Agriculture 1082 Crane Creek Road Potlatch, Idaho 83855	Lance Holmstrom Local Highway Technical Assistance Council 3330 Grace St. Boise, Idaho 83703
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SURVEYS

Additional comments were solicited through a survey distributed to advisory committee members and their constituents, as well as area emergency response personnel. The survey results are presented in Appendix A.

GENERAL PUBLIC INPUT

The Consulting team solicited general public input by presenting the transportation planning process at six community events. An information booth was set up and attended part-time at the Latah County Fair in September of 2005. Public input was also sought at four high school basketball games in different locations throughout the jurisdiction, one in Deary, two in Troy, and one in Potlatch. These were well-attended events that represented a cross-section of local community members familiar with the highway district roadways. A large-scale map of the highway district was placed near the main entry of each of these events. The consulting team solicited comment from event attendees about concerns, deficiencies, and suggestions for transportation improvements within the district. The comments received were documented directly onto the large-scale map presented at the event. These comments are presented in Appendix B. A public open house was held on June 27, 2006 to insure that the public had ample opportunity to comment. The event was advertised twice in the Weekend Moscow-Pullman Daily News on June 10 and 17.

OTHER AGENCY INVOLVEMENT

Several agencies other than NLCHD participated in the development of this plan by having a representative from their organization serve as an Advisory Committee member. Other agencies represented on the Advisory Committee were Latah County Planning and Building, South Latah County Highway District, Latah County Sheriff's Office, Moscow School District Transportation Services, White Pine School District Transportation Services, the Local Highway Technical Assistance Council, Idaho Department of Lands, the United States Forest Service, Valley Transit Regional Public Transportation, and the Latah Trail Foundation.

Existing Conditions

INTRODUCTION

This transportation system plan began with an assessment of existing land use and transportation system conditions. Current transportation facilities, planning efforts, and public concerns within the NLCHD jurisdiction were identified in order to establish a baseline for evaluating future conditions of the transportation system in the NLCHD. This baseline describes existing land uses, land use planning, public input, and conditions of all transportation modes, including trucks, cars, pedestrians, bikes, and transit facilities.

EXISTING LAND USE AND PLANNING

LAND USE

Settled in the late 1800's, North Latah County has been a significant hub for agriculture and lumber in the Palouse for over two hundred years. Within the North Latah County Highway District (NLCHD), four primary population centers have developed and thrived; Moscow, Troy, Potlatch-Onaway, and Deary. Moscow, the largest city within the NLCHD jurisdiction with a population of 21,900, is located near the southwest corner of NLCHD and is home to the highway district headquarters. Troy is the second largest town with a population of 769. Troy is located 10 miles east of Moscow on State Highway 8. Potlatch and Onaway are two towns immediately adjacent to each other located 18 miles north of Moscow on State Highway 6. Combined they make a population center of approximately 990. Potlatch is the third largest town in the NLCHD's jurisdiction. Further east of Troy along State Highway 8 are the small towns of Deary and Bovill. Deary is located 12 miles east of Troy and has a current population of 528 people. Bovill is a small town of 295 located 10 miles east of Deary. Bovill is the eastern-most town in the NLCHD jurisdiction. From Bovill, commuters can either continue 17 miles along State Highway 6 to the end of the Highway at Elk River (population 142) , or continue north along State Highway 3 toward St. Maries.

There are several unincorporated communities within the jurisdiction with populations under 300. Joel and Helmer are situated along the State Highway 8 route between Moscow and Troy.. Viola is 8.5 miles north of Moscow on Highway 95. Princeton and Harvard are located east of Potlatch on State Highway 6.

While populations in the cities of Troy and Deary have grown substantially since their incorporation, most of the growth occurred in the late 1800's and early 1900's. Potlatch, on the other hand, has experienced a moderate decline in population since the closing of the Potlatch Mill in 1981. Since the 1950's, the total population in the three cities has shown relatively slow change.

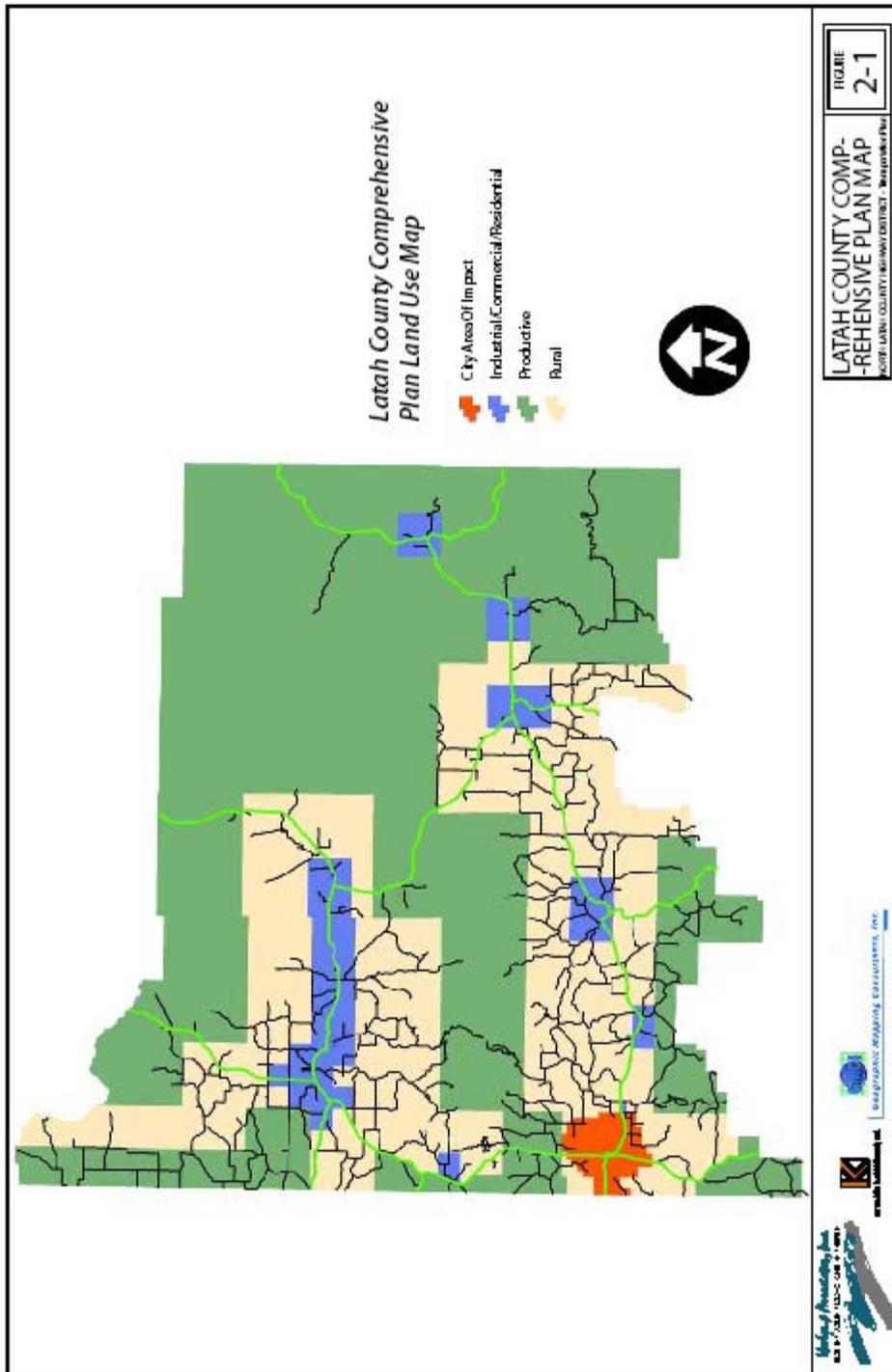
The transportation system within this region developed as a result of the necessity for commerce between Moscow, Troy, Potlatch, and Deary, and to move lumber and agricultural goods to railroad stations for transport to larger cities and ports. Much of the early growth in the area revolved around the railroad, which ran along the Palouse River through Potlatch and south to Deary. Troy had a separate line that connected its station to Moscow and beyond. Today, lumber and agricultural goods are moved primarily by truck to the larger city centers. Barges moving goods west on the Snake River from Lewiston, Idaho have taken the place of some railroad transport. Many people residing in NLCHD today commute to the larger city centers of Moscow, Pullman, Lewiston, and Clarkston for employment and services.

LATAH COUNTY COMPREHENSIVE PLAN

Latah County initiated a comprehensive plan in the early 1970's. Since then, it has been substantially revised. The current Latah County Comprehensive Plan was adopted by resolution on December 20, 1994, amended on November 20, 1995, and once again in October of 2005 to adjust the city of Moscow area of impact. The comprehensive plan and land use map were adopted by the Board of County Commissioners of Latah County to promote the health, safety, and general welfare of the people of Latah County in order to achieve the purposes set forth in Idaho Code 67-6502. The transportation element and the land use map were of primary interest in the formulation of this plan. The stated goal in the transportation element is, "To promote an efficient and safe transportation system in Latah County." The stated policies to accomplish this goal are as follows:

1. Ensure that access onto public roads will not disrupt traffic flow, and that access is adequate for emergency response vehicles.
2. Limit the number of access points to state and federal highways.
3. Encourage bike and pedestrian routes and mass-transit as transportation options.
4. Ensure compatibility of airstrips with surrounding land uses, and protect existing airstrips from encroachment by development.
5. Ensure that buildings are set back a safe distance from public roads.
6. Encourage the preservation and growth of rail service within Latah County.

The Latah County Comprehensive Plan Land Use Map, figure 2-1, proposes that increased densities will occur in the areas immediately surrounding Moscow, and in a broad strip along State Highway 6 between the junction of US Highway 95 and the small town of Harvard taking in Potlatch and Onaway. Areas designated for industrial, commercial and residential development are found immediately surrounding the incorporated cities of Troy, Deary, and Bovill, and the unincorporated areas of Helmer, Joel, and Viola. This understanding allows the consulting team to anticipate future traffic patterns to coincide with existing patterns. This anticipated growth pattern validates the concept of improving transportation between existing activity centers in the district, and larger municipal areas outside the district such as Lewiston, Orofino, and St. Maries.



MOSCOW COMPREHENSIVE PLAN

Moscow is located along the western-central border of Latah County adjacent to the Idaho-Washington border. The city of Moscow is the Latah County seat, and the most heavily populated city in the county with a population of 21,900. The Moscow city limits touch the Idaho-Washington state line. There are a few highway district roads that are isolated at the northwest and southwest boundaries of Moscow city limits. Pullman, seven miles to the west in Whitman County Washington, is another moderately sized city with a population of approximately 25,000.

Moscow was originally settled in the late nineteenth century by farmers encouraged by productive farmland. The town grew out of necessity as farmers tired of traveling 100 miles to Walla Walla, Washington for goods and supplies. Small retail stores began to congregate in the city center. The first railroad to pass through town was constructed in 1885. The railroad transported wheat and lentils to market, and facilitated the development of the University of Idaho in 1889. Shortly thereafter, Moscow was deemed the county seat, and the population began to grow. Today the city still depends as heavily on agriculture and the University of Idaho as it did in its early days.

Moscow's most recent comprehensive plan was published in 1999. The intent of the plan is to direct future growth in a desirable manner, and to clarify the relationship between physical development and social and economic goals. The Comprehensive Plan Land Use Map is illustrated in Figure 2-2. Purposes of the comprehensive plan are as follows:

1. To improve the physical environment of the community as a setting for human activities-to make it more functional, beautiful, decent, healthful, interesting, and efficient.
2. To promote the public interest, the interest of the community at large rather than the interest of individuals or special groups within the community.
3. To facilitate the democratic determination and implementation of community policies on the physical development.
4. To effect political and technical coordination in community development.
5. To inject long-range considerations into the determination of short-range actions.
6. To bring professional and technical knowledge to bear on the making of political decisions concerning the physical development of the community.

Transportation Element

The city of Moscow's general transportation goal is as follows:

"To provide a system of transportation and circulation within and around the city of Moscow that will make it possible for all people utilizing various modes of transportation to reach their destination as safely and as easily as possible with the least disturbance to adjacent uses."

Because Moscow is a relatively small town in a rural setting, efficient connections to larger metropolitan centers are of the utmost importance, and are stressed in the transportation plan. Automobile traffic is the primary mode of transportation in and around Moscow, and is therefore of primary importance. However, a great number of people bicycle and walk as alternate modes of transport, an activity that is encouraged wherever possible.

General Transportation Objectives are as follows:

1. Ensure a complete and logical circulation pattern throughout the Moscow area in the future.
2. Provide a circulation pattern that will adequately serve adjacent land uses.
3. Maintain and enhance the quality of life in Moscow by creating transportation systems that move people effectively and safely.

Motor Vehicle Circulation:

Moscow traffic is separated into three types; local traffic, inter-city traffic, and through traffic. Local traffic consists of short trips in which the origin and destination are within the city of Moscow. Inter-city traffic is traffic between Moscow and another area outside of the city limits. Through traffic neither begins nor ends in Moscow; Moscow is simply along the route. Moscow's Major Street Plan is illustrated in Figure 2-3.

Traffic has continually increased since the 1983 version of the comprehensive plan was implemented. The majority of the traffic appears to be local rather than inter-city and through traffic. However, as the city population increases, so does the need for circulation into and out of the city. Several motor vehicle implementation policies in the comprehensive plan address this need:

5. It is a priority of the city to develop a west US Highway 95 bypass. A corridor for the bypass should be identified before development occurs.
6. An arterial loop system should be developed around the existing city perimeter to move local traffic between traffic generators in a shorter period of time.
11. Adequate emergency vehicle access and maneuverability should be provided to all areas.

Bicycle Circulation:

Moscow is at the forefront of bicycle circulation in the state of Idaho because of its small and compact size, and the progressive nature of its citizens. The comprehensive plan asserts that bicycle transportation is so important that it should not be considered "alternate" transportation. The overarching bicycle goal is as follows:

"To increase the safety and convenience of those already using bicycles; to encourage the use of bicycles by those who would like to bicycle but are concerned about hazards; and to consider the need for safe, convenient, direct bicycle access in transportation decisions for Moscow."

Bicycle objectives are as follows:

1. Recognize in the planning process that all streets are used by bicyclists.
2. Develop an effective education program for bicyclists and all those who share the roadways and walkways with bicyclists.
3. Encourage the construction and maintenance of logical, connected, safe bicycle ways.

4. Promote adequate and secure bicycle parking.

Pedestrian Circulation:

Pedestrian circulation is also important to the city of Moscow, and is encouraged at every opportunity. The goal of the pedestrian plan is to *“increase the safety and convenience of pedestrians, and to encourage those who would like to walk but do not do so because of a lack of safety, scenic opportunities, or convenience.”*

Other Related Comprehensive Plan Elements

Population:

Moscow’s current population is approximately 21,900 and growing at a rate of just under one % per year. The University of Idaho’s student population of 12,476 is a large part of the total population, and the student population of Washington State University (WSU) contributes to the general population of Moscow, as well. In 1991 twenty % of WSU faculty lived in Moscow and commuted daily to Pullman.

Moscow’s city population goal is to, *“ensure that population growth does not occur at such a rate as to exceed the city’s ability to provide services and a quality environment.”*

The objectives are:

1. To retain Moscow’s basic character as a small scale university, retail, and agricultural-based community.
2. The city of Moscow will use the availability of its public services to direct the location and control its future population growth in order to achieve this goal.

Moscow’s Current Planning Efforts Not Reflected in the Comprehensive Plan

Moscow’s Ring Road Concept

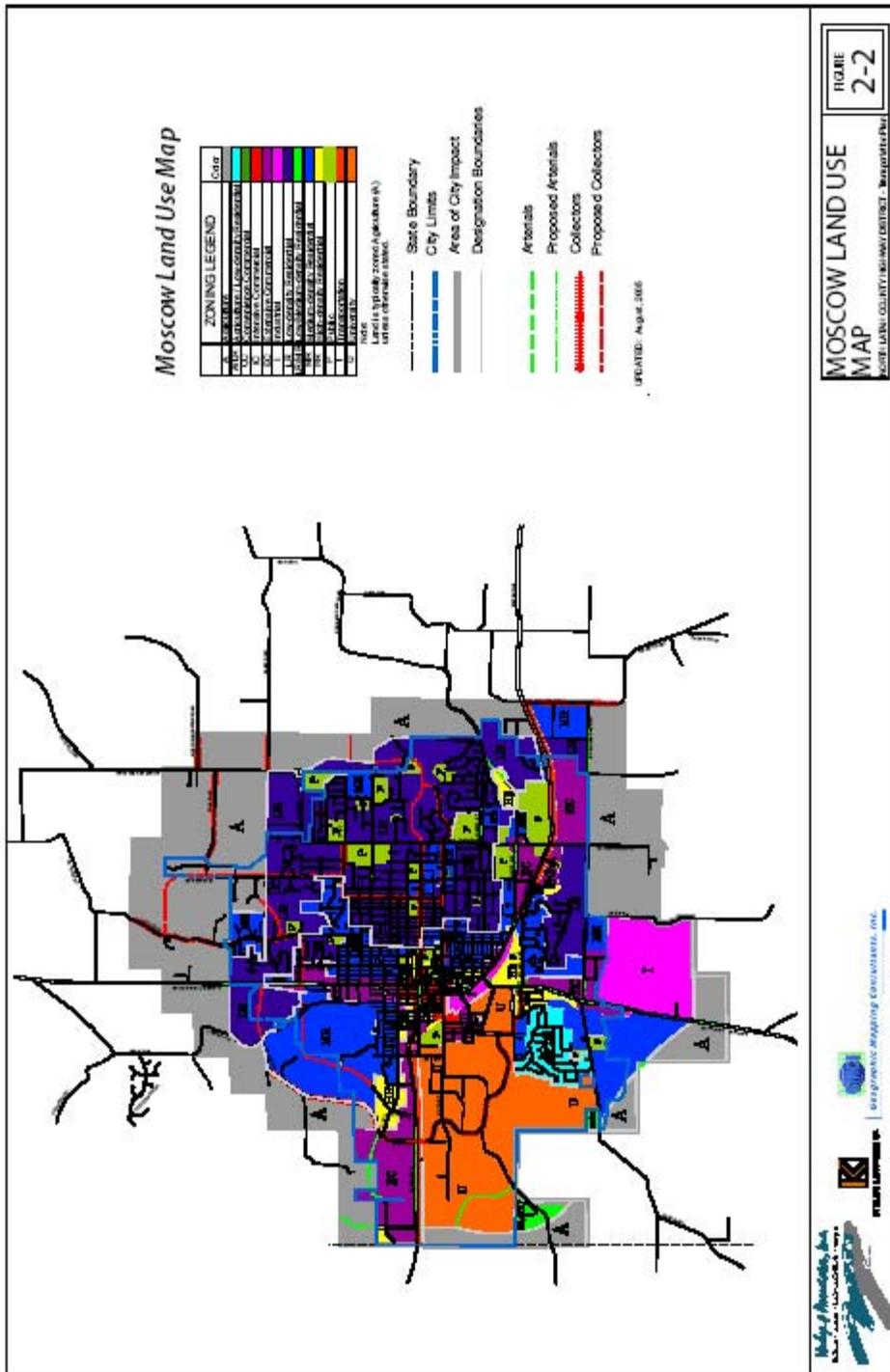
The Moscow Transportation Commission has proposed a ring road around the developed area of Moscow. Policy number six of Moscow’s Comprehensive Plan motor vehicle circulation policy states that *“an arterial loop system should be developed around the existing city perimeter....”* Planning efforts for the ring road concept are in the beginning stages, and the end result of the planning process may change the concept dramatically. The ring road concept is discussed in more detail in Section 3 – Future Conditions because the concept has not yet been formally adopted by any authority and can not be considered an “existing condition.”

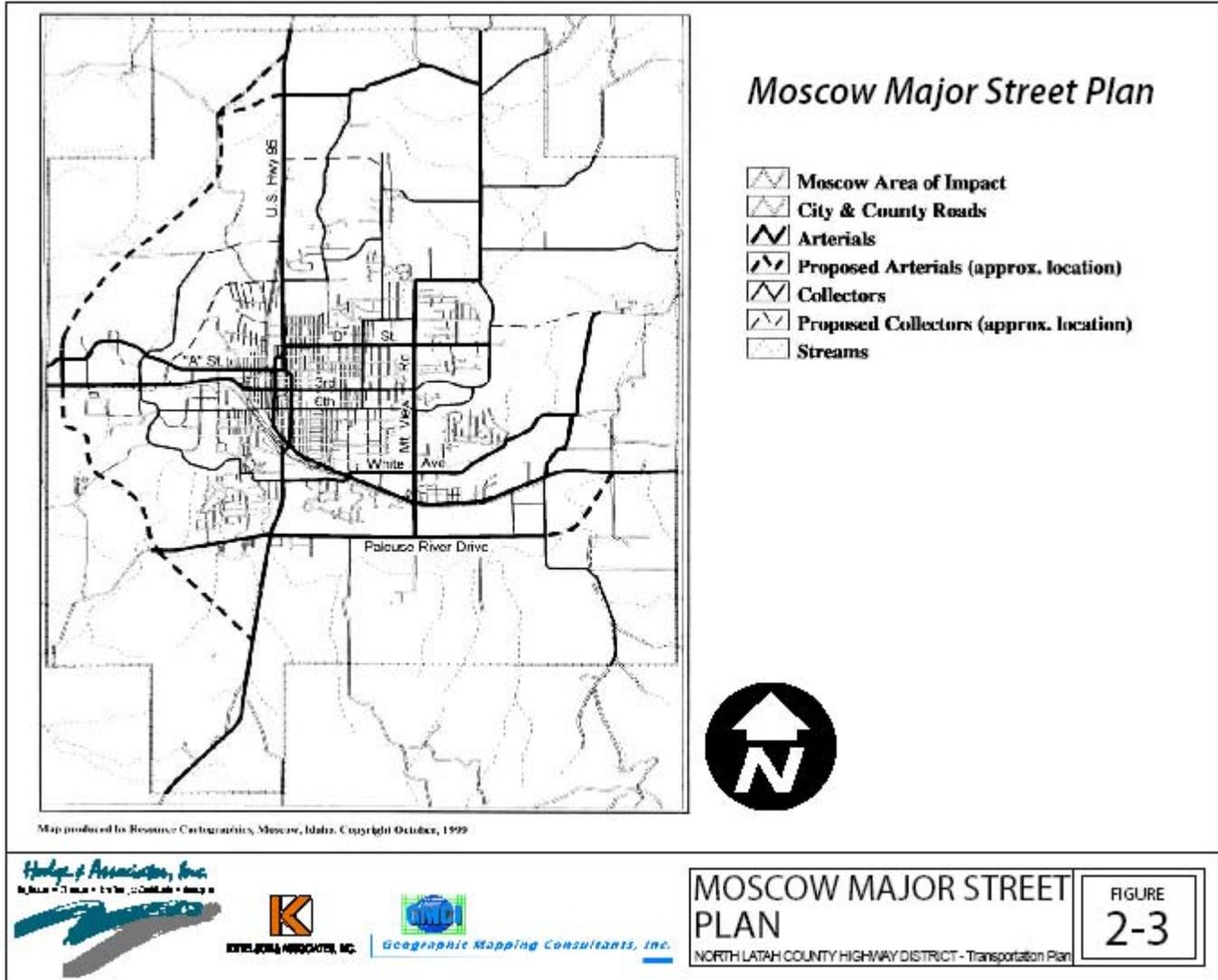
Jurisdictional Issues

There are several segments of roadways likely to be annexed into the Moscow city limits in the near future. Those include significant portions of Palouse River Drive, the northern portion of Paradise Ridge Road, and isolated segments of Mountain View Road that are surrounded or bordered on one side by city development. The city and highway district are discussing whether the city should assume the responsibility for maintenance of the Old Pullman Highway located between the University of Idaho and the state line.

Summary of Moscow Land Use Issues

As the largest population area in Latah County, Moscow's transportation issues greatly affect the highway district. As a university town, developing and enhancing viable modes of alternative transportation is a focus of the Comprehensive Plan. There have been recent community workshops about the proposed Ring Road Concept. The highway district should expect increased conflicts between bicycles and pedestrians on the county roadways surrounding the city. As the city annexes land and county roads into the city limits, public right-of-way width dedication is increased to accommodate on-street parking, bicycle lanes and sidewalks. The highway district should consider requiring increased right-of-way widths for new developments along collector roads within a mile of the city limits to reduce the number of inevitable future conflicts. The routing of the proposed ring road, and access points of existing county roads to that route should be considered in the planning process as much as possible without knowing the actual route. It is assumed that county roads between the city limits and the proposed ring road route will have been annexed into the city prior to construction of the ring road.





TROY COMPREHENSIVE PLAN

The Troy comprehensive plan was originally formulated by analysis of responses to a community survey conducted in 1972 by the University of Idaho and the Troy Planning Commission. The community was surveyed once again in October of 1996 by the Troy City Council and the City Planning and Zoning Committee. The current comprehensive plan was revised and adopted in 1997. There is not a land use map in the Troy Comprehensive Plan. Community involvement and opinion is of the utmost importance to the plan development, and all decision making processes. Goals and policies of the comprehensive plan are revisited annually by the Planning and Zoning Commission.

Troy is located along Highway 8 approximately 12 miles east of Moscow. Originally named Huffs Gulch, the town was settled in the late 1800's as the Spokane and Palouse Railway pushed east from Moscow on its way to Lewiston. John P. Vollmer, a successful businessman, renamed the town Vollmer after himself when it was incorporated in 1892. With railroad revenue and fertile farmland, the town continued to grow and prosper. In 1897 citizens, disenfranchised by Mr. Vollmer's growing wealth, voted overwhelmingly to rename the town Troy (<http://users.moscow.com/lchs/history.html>).

Troy's economy has diminished dramatically with the weakening of demand for the railroad. Today the largest employer in the town is the White Pine School District followed by Idaho Cedar Sales. Much of Troy's workforce commutes to larger cities for employment.

Transportation Element

Troy's original 1972 transportation plan focused on supporting the State Highway system with access, arterials, and feeder roads. The 1997 version focuses on a more holistic approach to transportation, with an overarching goal to *"Provide for adequate, safe and efficient transportation using multiple means."*

Public surveys addressed several primary problems. The elementary school was moved to Big Meadow Road, which causes conflict between children and motorists on the busy road. Sidewalks are lacking from the city park along Highway 8 and the downtown area. New development causes strain on public services such as snow removal, road maintenance, emergency access, evacuation, and pedestrian and bicycle routes. Many neighborhoods lack sidewalks and curb cuts for accessibility. Disabled parking is very limited in the downtown area.

A list of objectives in the comprehensive plan that are most relevant to the NLCHD Transportation Plan follows:

1. Maintain an adequate road network while seeking to develop a network of sidewalks and paths for non motorized transportation.
2. Promote methods and practices to further traffic and pedestrian safety.
3. Provide adequate street lighting.
4. Up-grade existing walks and provide accessible sidewalks in all new developments.
5. Encourage or require timely snow removal from streets, sidewalks, or pedestrian walkways.
6. Provide adequate accessible parking.
7. Encourage further increases in the availability of public transportation.
8. Coordinate new road development and road maintenance with the State Highway Department and the North Latah County Highway District.

Other Related Comprehensive Plan Elements

Population:

Population growth seems inevitable due to Troy's close proximity to the population center of Moscow, and its pleasant rural atmosphere. Moscow is approximately 20 minutes away, and Lewiston is 60 minutes away. Other factors for potential growth include:

- The growth of the University of Idaho in Moscow, and Lewis-Clark State College in Lewiston. Increased enrollment will provide more students, faculty, and service-related occupations in the area.
- Troy predicts a total population of 1,500 to 2,000 residents by the year 2020.

Summary of Troy Land Use Issues

As the second largest town in Latah County and close to Moscow, Troy has the potential to grow as a bedroom community to Moscow. Troy's Comprehensive Plan did not include a graphic plan, but by policy encourages alternate means of transportation. The Latah Trail has been extended into Troy, and the trail will be heavily used. It is possible that construction of the high school at the northwest quadrant of the town will encourage residential development there. Pedestrian and bicycle traffic could become more intense between the Latah Trail and the school, and as development expands on that quadrant of town, there will be an increase in pedestrian and bicycle usage on the nearby county roads.

POTLATCH COMPREHENSIVE PLAN

In the early 1900's William Deary emigrated from Minnesota in order to buy large stands of excellent white pine and set up a mill. The Potlatch Lumber Company, established in 1902, built the largest and most modern white pine sawmill in the world. In order to accommodate the mill's 1,500 employees, the model town of Potlatch was built by the company in 1905. Potlatch administration sought to enhance the working conditions and quality of life for employees through town design, mill technology, and employee services.

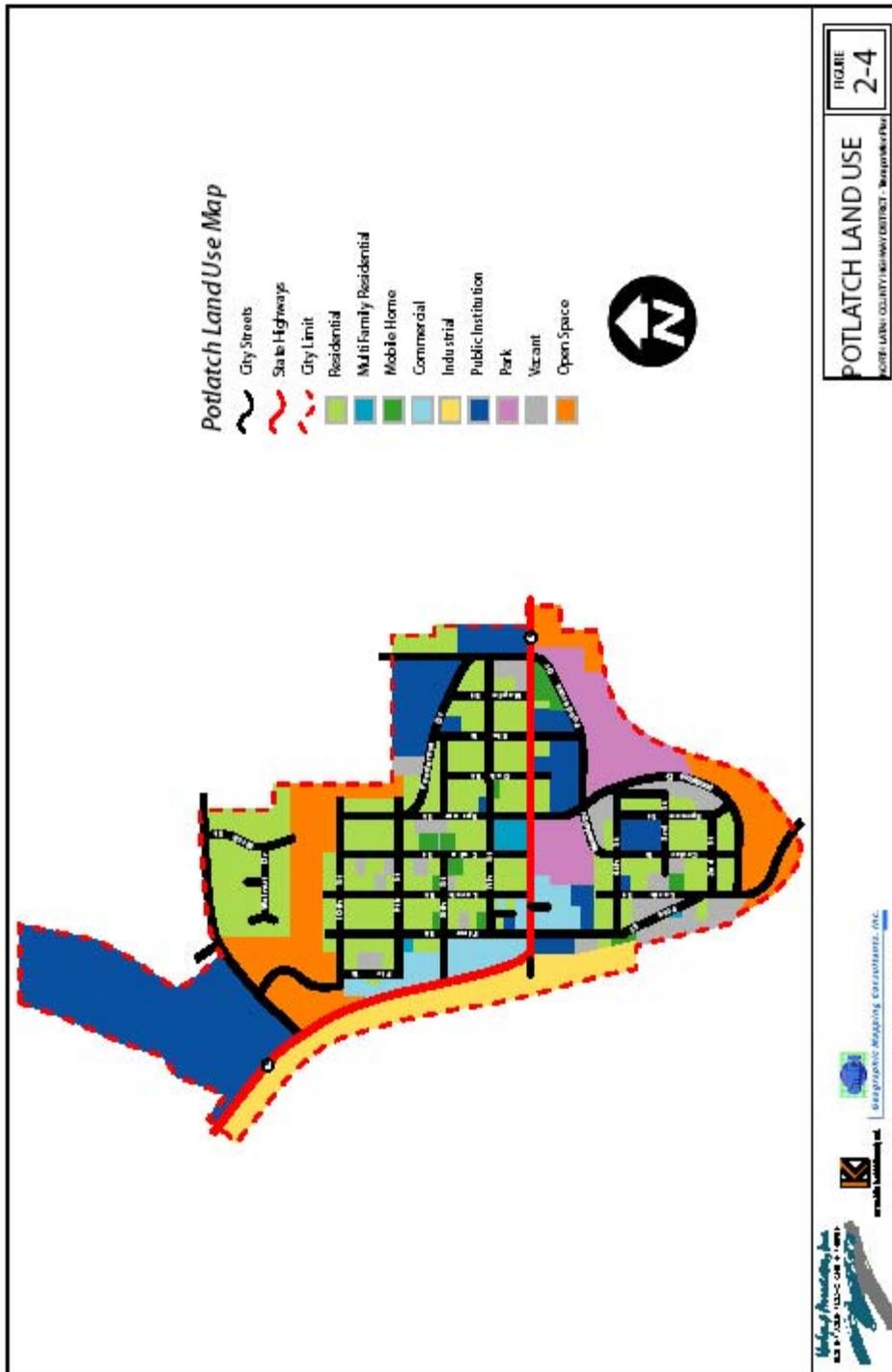
In the early 1950's Potlatch relinquished absolute control and turned management of the town monopoly over to a village council. Life in Potlatch changed dramatically with the change of leadership. Homes were privately owned and a series of fires decimated many of the town's buildings. The most devastating blow to the town was the 1981 closure of the mill that brought economic disaster. As the town's largest employer, many predicted that the town of Potlatch would dissolve completely as people looked elsewhere for employment. Despite these predictions, Potlatch survived because of its rural beauty and small town atmosphere, and became a bedroom community for the towns of Pullman and Moscow.

Potlatch is located 19 miles north of Moscow on Highway 6. Highway 95 is approximately 2 miles west of town. Potlatch encompasses nearly one square mile, and is the third largest town in Latah County.

The Potlatch Comprehensive plan is a work in progress. The first version of the plan was adopted in 1981, six months before the Potlatch Mill was closed down, which changed the needs, direction, and momentum of the town. The most recent plan was adopted in 1998, and is considered the official public statement of the city's goals, policies, and objectives. It recognizes that conditions and attitudes change over time. This comprehensive plan provides:

- A document that meets the requirements of the Local Planning Act.
- A land use map that indicates the general land use goals from 1997-2010.
- A document that provides the basis for regulatory ordinances including zoning ordinances, subdivision ordinances, etc.

The City of Potlatch Proposed Land Use Plan is illustrated in Figure 2-4.



Transportation Element

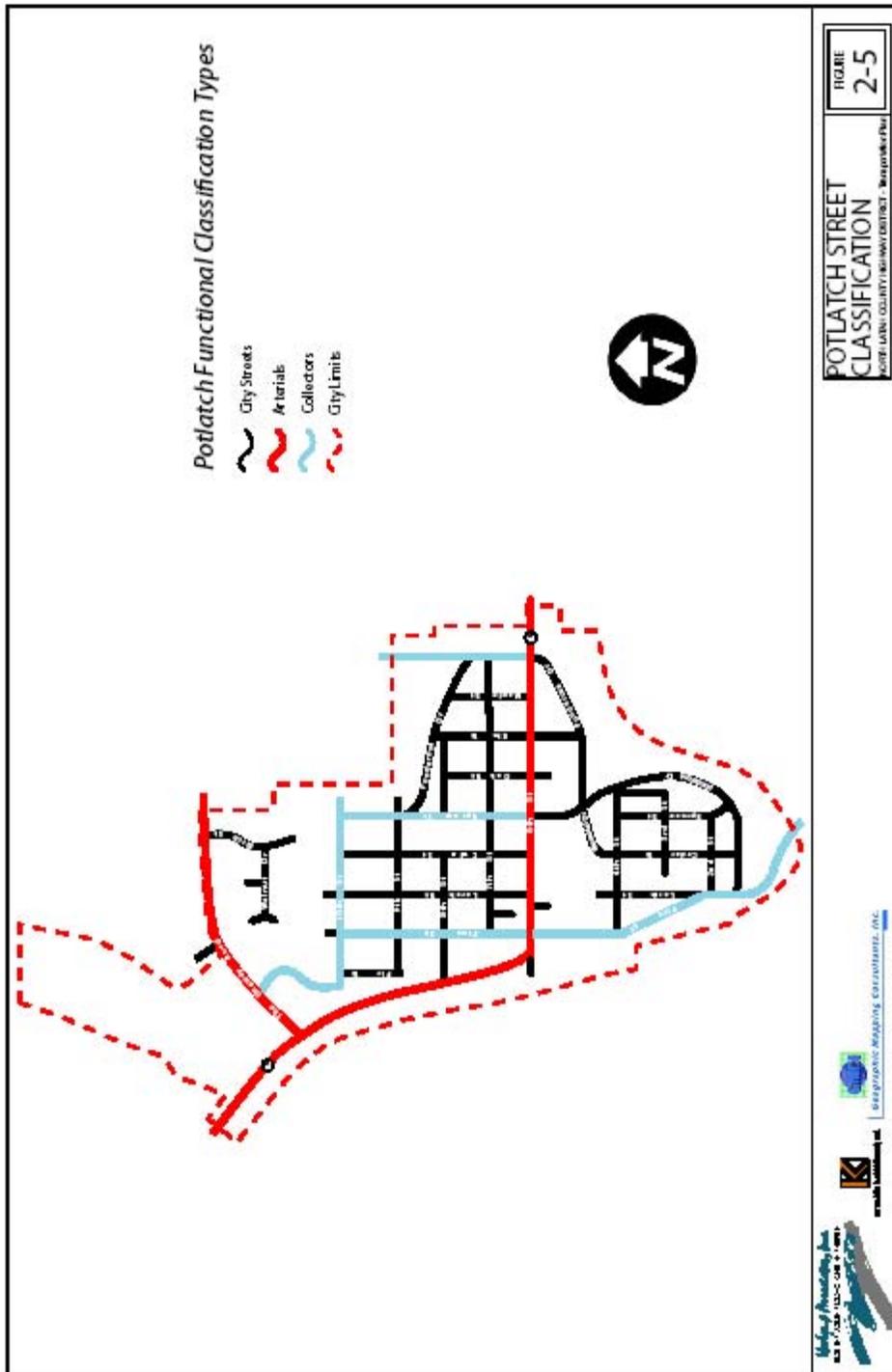
Potlatch commissioned a comprehensive transportation system plan in 2002. The purpose of the plan is to:

"Incorporate the vision of the community into a transportation system that addresses the multi-modal needs of the community and to guide the management and development of appropriate transportation facilities."

The plan outlines and solidifies a transportation system and capital improvement plan. Section 5 describes in detail the individual elements of the plan and addresses components of future improvements to the roadway system, including:

- Preferred Land Use Map
- Roadway System Plan
- Pedestrian System Plan
- Bicycle System Plan
- Access Management Plan

A roadway Functional Classification plan (Figure 2-5) for all roadways within Potlatch city limits is included. Roads are identified by their operational and circulation needs. The Pedestrian and Bicycle System Plan (Figure 2-6) is focused on providing pedestrian and bicycle connectivity between major activity centers. These centers include City Hall, the Post Office, Senior Citizen Centers, city parks, libraries, schools, and commercial businesses along Highway 6. Because of limited funding, it is anticipated that any further path development would be multi-use in order to accommodate both bicycles and pedestrians.





Other Related Comprehensive Plan Elements

Population:

In its heyday, Potlatch's population pushed 2,000 people. The population has since stabilized at approximately 800 (1994 Census Data).

Public Transportation:

At the time the comprehensive plan was written, Link Transportation Systems operated transit passenger service between Potlatch and Moscow two days per week. This service is no longer running. Bus line depots operated by Northwest Trailways are located in Moscow and Pullman. Palouse Clearwater Environmental Institute has attempted to organize a commuter van service, but has not been successful in the long-term operation of that service. PCEI recently launched a web-based ride share program assisting commuters in identifying others with compatible travel needs.

Proposed Future Land Uses

The Latah County Comprehensive Plan map designates a wide strip on both sides of SH 6 between Harvard and US 95 as industrial/commercial/residential. This is the largest contiguous strip of such designation in the Latah County Comprehensive Plan, and exceeds the land area contained within the Moscow Area of Impact. A large portion of land south of SH 6 between the city of Potlatch and US Hwy. 95 is currently zoned Industrial in the county.

Economy

The mill closure accelerated a change in the economic structure of the Potlatch area community. The community can no longer provide jobs for the majority of the work force, and Potlatch is now a bedroom community for Pullman and Moscow. Several objectives and implementation strategies listed in the comprehensive plan are relevant to the NLCHD Transportation Plan. Chapter 6, section 6.1.5 states, *"The citizens of Potlatch have expressed an interest in discouraging the presence of large industry within the Area of Impact."* However, the definition of large industry has not been made clear."

The stated goal in 6.2.1 is *"To diversify the Potlatch area's economy by encouraging small to medium sized environmentally safe basic industries, expand the service-related businesses, and support the existing businesses."* ;

Rail and Air Transportation

Palouse River and Coulee City Railways offer only freight service to and from Potlatch.

Summary of Potlatch Land Use Issues

Of the small towns in Latah County, Potlatch has the greatest potential for rapid expansion because of the large amount of commercial and industrial zoned land around State Highway 6 and the old Potlatch Mill site. The Potlatch area could be perceived to have more available water because of the nearby Palouse River. Areas of development would most likely be annexed into the city of Potlatch and accessed along SH 6. Large lot subdivision development in the county could impact county roads. Potlatch has developed plans for bicycle and pedestrian transportation modes in their comprehensive plan and transportation plan. If these plans are realized, pedestrians and bicycles will most likely use the improved trail system envisioned in previous planning efforts. If the goals and plans for paths are not developed, conflicts will most likely increase on county roads.

DEARY COMPREHENSIVE PLAN

Much like Troy, the town of Deary was created in order to house employees of the Potlatch Lumber Company. Unlike Potlatch, Deary was carved out of the white pine forest by private homeowners in the 1880's and 1890's. Deary was platted in 1890. A majority of the town's first settlers were Scandinavian immigrants from the Midwest who moved further west to claim their 160 acre homesteads. In 1905, engineers for the Potlatch Lumber Company surveyed the right-of-way for the railroad. William H. Deary, the Potlatch General Manager, bought up a good deal of land in the future town site, and located his station in the center of what would become Deary. The promise of revenue, employment, and trade opportunity were an exciting prospect in the upper Potlatch country.

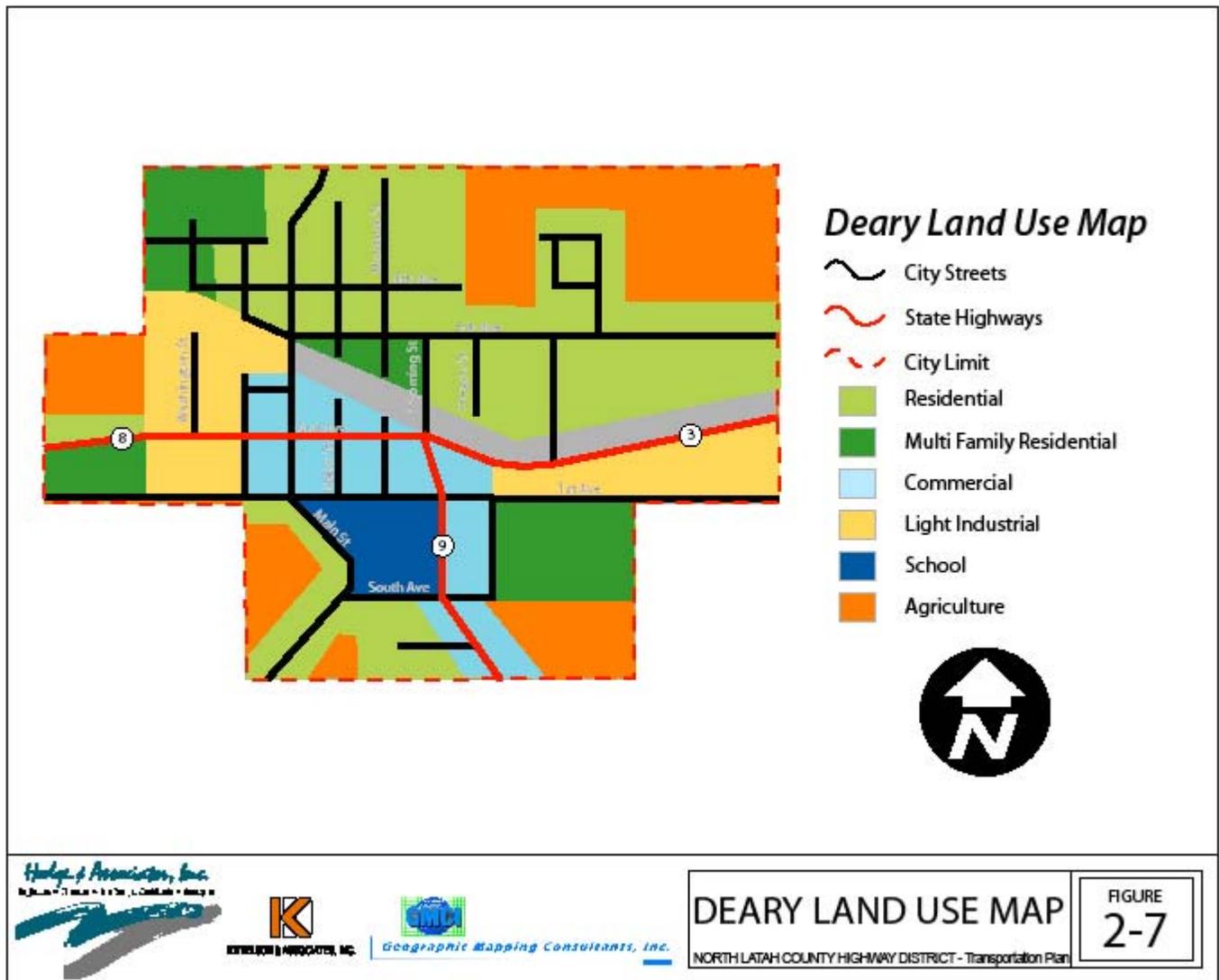
The first sale of town lots took place in September of 1907. Unlike the town of Potlatch, Deary was not under the control of the lumber company. Potlatch Lumber only intended to log the area surrounding the town, then sell off the cleared land. The Deary Commercial Club was highly active, and successful in drumming up interest in Deary. The town boomed.

In October of 1923, a major fire burned down most of the buildings on the west side of Main Street. This event marked a slowing down of the town, which, like all others in the region, was hit hard by the economic slump of Potlatch Lumber. Deary settled into an agricultural outpost and bedroom community for larger civic centers. Much remains the same today.

Deary is located approximately 25 miles east of Moscow along State Highway 8. Highway 8 comes into town, where it turns into Second Avenue. Second Avenue leaves town as Highway 3 on its way east towards Bovill and Elk River, and south out of town towards Kendrick, Idaho. Highway 9 heads north out of town towards Harvard.

Deary's comprehensive plan was written in 1979 and updated in September of 1996. Public involvement was a crucial factor in the compilation of the plan. The plan was intended to be used as a guide for managing growth in an orderly way. The plan directed *"a unified effort to improve the community through preparation of community development projects, the improvement of public facilities, and the adoption of ordinances."*

The Deary Land Use Map is illustrated in Figure 2-7.



Transportation Element

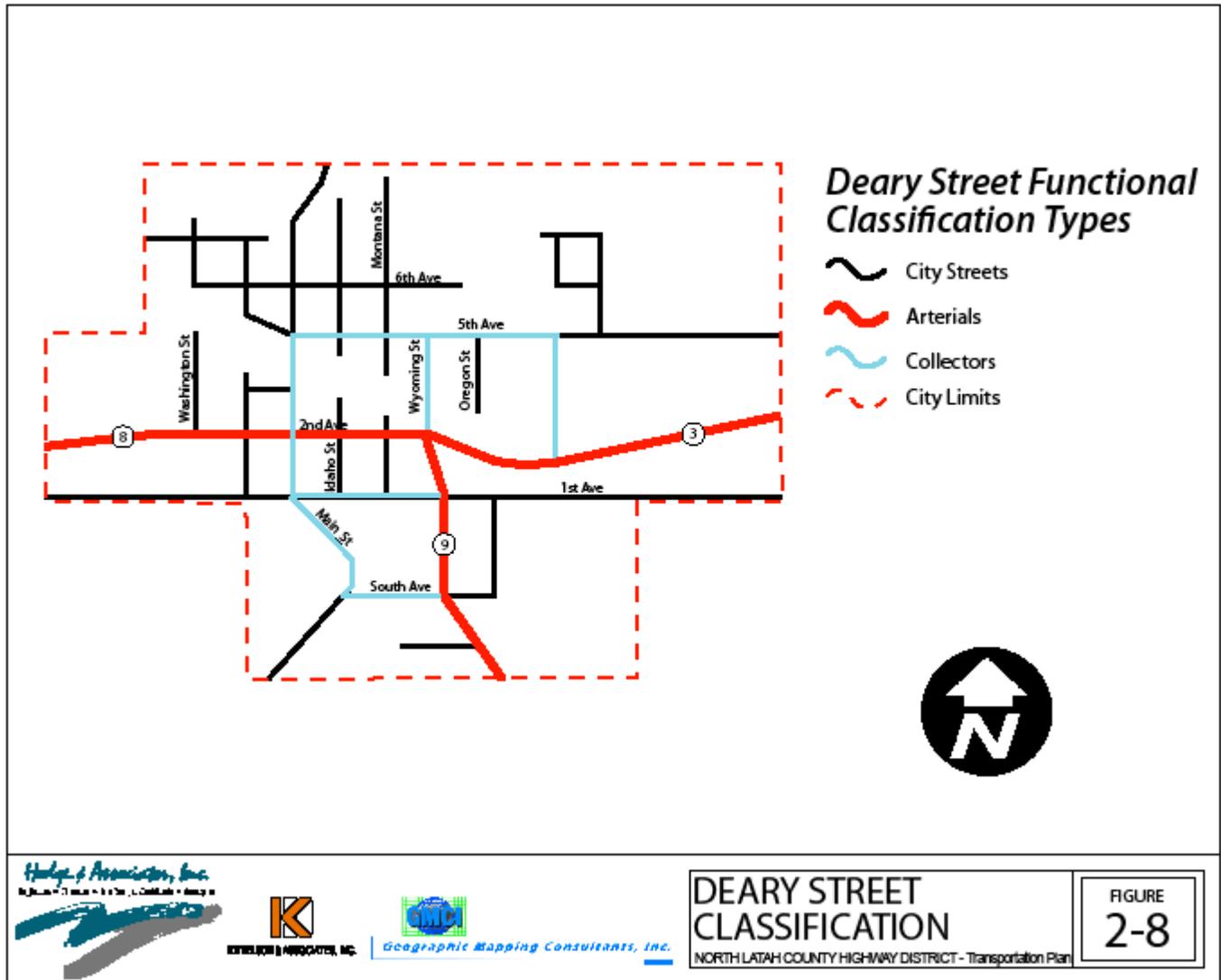
Deary's transportation primary goal is to *"Insure the serviceability and adequacy of the transportation routes connecting Deary with surrounding towns and cities."*

The automobile is the principal form of transport in Deary. Highways 8, 3, and 9, and several other city streets carry the majority of motorists. Heavy logging trucks in the summer and fall create serious problems for safety and maintenance.

Deary's transportation objectives are as follows:

- Develop standards to preserve site triangles at all intersections to ensure safety of drivers and pedestrians.
- Continue coordination between the highway district, ITD, and the city.
- Work to provide and protect the safety of children through proper signage, school routes, and safe bussing.
- Encourage pedestrian oriented developments, including sidewalks, particularly along the main streets in the community.
- Encourage transportation alternatives that are affordable and accessible for senior citizens and commuters.
- Encourage adherence to the speed limits to further ensure the safety of citizens when using Deary streets.

A map illustrating the Deary Road Functional Classification Plan is found in Figure 2-8.



Other Related Comprehensive Plan Elements

Present Land Use:

Logging and farming provide a great majority of the community's economic base. Land use patterns accommodate these industries. Large grain elevators, farm chemical plants, bulk plant storage, and garages for servicing logging equipment are located downtown.

Deary's land use goal is to *"Achieve a land pattern which provides for compatible land uses adjacent to each other, a safe and pleasant environment, conventional surroundings, a beneficial economic atmosphere, and available for the expansion of all land uses."*

Recreation:

Outdoor recreation is very important to the people of Deary. Spud Hill, just above the city, is a popular destination for residents. The land is used for hiking, camping, snowmobiling, and picnicking. Access to the hill is limited in places because of private property owner's restrictions, and continued access is a concern for residents. A majority of the hill is owned by the USDA Forest Service.

Summary of Deary Land Use Issues

Residential growth in the county around Deary is likely to have more impact on the county roads than expansion of the city of Deary. The residential growth will most likely occur by short plats of existing parcels rather than full plat subdivisions. Deary stands to benefit from tourism as people pass through the city for outdoor recreational sites such as Elk River and Dworshak Dam.

AGENCY AND PUBLIC INPUT

Input from the NLCHD, other agencies, and the general public was gathered using four methods; Advisory Committee comments, surveys, interviews with agency representatives, and project presentations at community events. Fifteen of the Advisory Committee members represented agencies other than NLCHD. A detailed list of the agencies represented can be found in Section 1. Agency committee members represented their constituents, but were also asked to solicit comments from their neighbors, friends, associates, etc., thereby increasing public and agency representation. Surveys were distributed to the Advisory Committee, which was encouraged to distribute the survey to others, as well. At the community events, public comments were recorded directly onto the large scale display maps. Surveys were also made available at the community events, where the public was encouraged to provide more detailed comments.

NORTH LATAH COUNTY HIGHWAY DISTRICT

Goals of the North Latah Highway District were identified during meetings between the consulting team and the highway district, and by surveys distributed to the highway district commissioners and supervising staff. The highway district listed the following elements for inclusion in the transportation plan:

- Identify public needs and desires.
- Develop priorities and a method of prioritizing projects.
- Identify and pursue other funding sources.
- Improve the roadway system by widening narrow roads, paving gravel roads, and striping paved roads.
- Plan for future growth and traffic.
- Inventory existing assets including culverts, bridges, and signs.
- Set construction standards.
- Update the official map that includes detail of deeded roads and widths. Clarify the difference between public roads, dedicated right-of-ways and private roads.
- Give State and Federal agencies the opportunity to provide input during this planning process.
- Provide input to the Idaho Transportation Department's Thorn Creek to Moscow Highway 95 Project, and the City of Moscow Ring Road Concept Development.

Safety and Regulatory Issues

- Give safety issues a high priority.
- Set enforceable speed limits on county roads. The state-mandated speed limit of 55 miles per hour is too high, and needs to be reduced.
- Make improvements in the use of traffic control signage, flagging, and safety vests during construction to better ensure the safety of maintenance staff.
- Widen narrow roads and bridges.
- Improve sight distance at intersections with odd angles.
- Improve sight distance at steep hills and sharp corners.
- Improve sight distance on roads due to encroachment by vegetation. Provide guidance on right-of-way width where adjacent property owners are not supportive of vegetation removal.
- Improve signage.
- Comply with potential future requirements for air and water quality.

Desired Capital Improvement Projects

- Upgrade road widths and types of surfaces, especially where there is increased development and/or traffic flow would be improved: Darby Road, Idlers Rest Road, Foothill Road, Saddle Ridge

Road, Clay Pit Road, Lemman Creek Road (also known as Gold Hill Road), and West Walker Road.

- Upgrade bridges, especially at Viola, Boulder Creek, and Rock Creek.
- Reduce flooding by improving drainage in waterways, ditches, and where culverts and bridges are too small.
- Realign roadway segments that flood because they are too low and close to the streambed.
- Build sanding shed(s) for keeping material dry in the winter.
- Secure source(s) of water for summer maintenance and construction activities in the Moscow and Deary division.

Maintenance Issues

- Stripe paved roadways.
- Determine maintenance costs of future bicycle and pedestrian facilities.
- Upgrade maintenance equipment, including graders, trucks, rollers, brushcutters, and mowers.

Summary of Highway District Concerns

The transportation plan will provide all of the elements listed by the highway district. Many of the issues listed as safety and regulatory and maintenance issues will also be addressed by the plan - the Plan will focus more on improvements to the transportation system rather than day-to-day maintenance operations. The highway district staff is the most knowledgeable of the system and many of the Capital Improvement projects they have listed will undoubtedly sift out as higher priorities based on analysis and public input. A verification of high priority items uncovered as a result of the planning process will be cross referenced with the highway district's list of concerns to insure they have been appropriately ranked in priority.

PUBLIC CONCERNS

The public commented on a variety of issues, some of which are general in nature, and some more location specific. The highway district received many positive comments about the road system, and in many cases it took much encouragement to elicit any suggestions from the public. Comments pertaining to the State Highway system were deleted from this summary, but can still be found in Appendix A where detailed lists of comments can be reviewed. Figure 2-9 represents a graphic summary of location-specific comments. Suggestions for improvements to specific locations referred to paving, dust abatement, and geometric or alignment modifications. Comments that were not necessarily location specific have been listed below. The comments could be further categorized into general, alternate routes or improvements to routes, winter driving conditions, pedestrian/bicycle issues, and comments specific to agencies. A summary of comments in each category is found below. Comments made with the most frequency are found at the top of each category list.

General Comments

- Create enforceable speed limits for roads with vehicles that travel at high speeds.
- Provide more grading of gravel roads, because many are washboarded.
- Create consistency in roadway widths; narrow roadways with no shoulders, and too much variation in roadway widths cause slide-offs.
- Provide warning signs at sharp corners.
- Improve boundary and speed limit signage on all county roads. Correct inaccurate road name signage, and remove private signs posted on public roads.
- Provide more pavement striping.
- Improve roads in poor condition to prevent cars driving in the middle of the roads.

- Increase public transit, especially from the smaller outlying towns into Moscow. One run in and back every day would be helpful to make medical appointments, do shopping, etc. Public transportation must be considered as part of this plan.
- Add a traffic light at the intersection of Highway 8 and Mountain View Road. It is congested and needs a traffic light (mentioned by many).
- Remove roadside vegetation.
- Existing roadway system is adequate, possibly over-developed, and there is no need for bigger roads (two comments).
- Decrease number of wildlife/vehicle collisions; provide more "Game Crossing" signage.
- Provide notice to public of upcoming road closures and projects.
- Create a system of objective criteria for road improvement prioritization. A legitimate plan for infrastructure improvement around Moscow is needed.
- Add traffic lights at busy intersections at the edges of Moscow.
- Improve fire evacuation by providing alternatives to dead-end roads and private-gated roads.
- Improve limited sight distances in new residential development.
- Prohibit water running off residential drives that damage county roads.
- Standardize a procedure to determine the most cost effective way to upgrade a road by magnesium chloride, bituminous surface treatment, or paving.
- Improve the safety of the Old Moscow-Pullman Highway southwest of the University of Idaho; it is dangerous; narrow, curvy, and has no guard rails.

Alternates or Improvements to Routes

- Provide alternate routes around Moscow.
- Improve year-round access to Farmington. In the late fall, winter, and spring, travelers must go through Washington to get to Farmington due to road conditions. Recommends improving Woody Grade Road and maintaining through the winter.
- Provide a shorter route between Potlatch/Princeton area and Troy.
- Connect Hatter Creek Road and Tamarack Road (could be related to a shorter route between Potlatch/Princeton and Troy).
- Create an alternate to Highway 9 at milepost 9 because it floods over the road in that area.
- Pave Foothill Road to Lewis Road. Often used as a bypass for Highway 95.
- Provide a bridge on Camps Canyon Road. The creek flows over the road part of the year and makes the road impassable (NLCHD is currently building a bridge at this location).

Winter Road Conditions

- Many stated that the highway district does a good job of snow removal, but some commented about a need for night-time snow removal operations instead of waiting until daylight.
- Snow bermed up against mailboxes which makes them hidden and inaccessible.
- At the intersection of Highway 8 and Gun Club Road there is limited sight distance at a sharp corner where a school bus stops. Because of ice, cars have slid around the school bus while kids have been loading.

The public commented on areas where snow and ice consistently create problems on the county roads. A summary of the specific locations follows:

- Robinson Park Road between Moscow city limits and Wallen Road
- Little Bear Ridge Road
- Lenville Road, especially at the 90-degree curve just south of Palouse River Drive.
- Big Meadow Road between Orchard Loop Road and Highway 8.

- Upper Paradise Ridge Road
- Howell Road at Wallen Hill

The need or desire for more snow removal was noted at:

- Deep Creek Road
- Dutch Flat Road (a few plowings would make emergency access easier)
- Morris Road
- Pinecrest Road
- Blaine Road near Wild Iris Lane

Pedestrian and Bicycle Concerns:

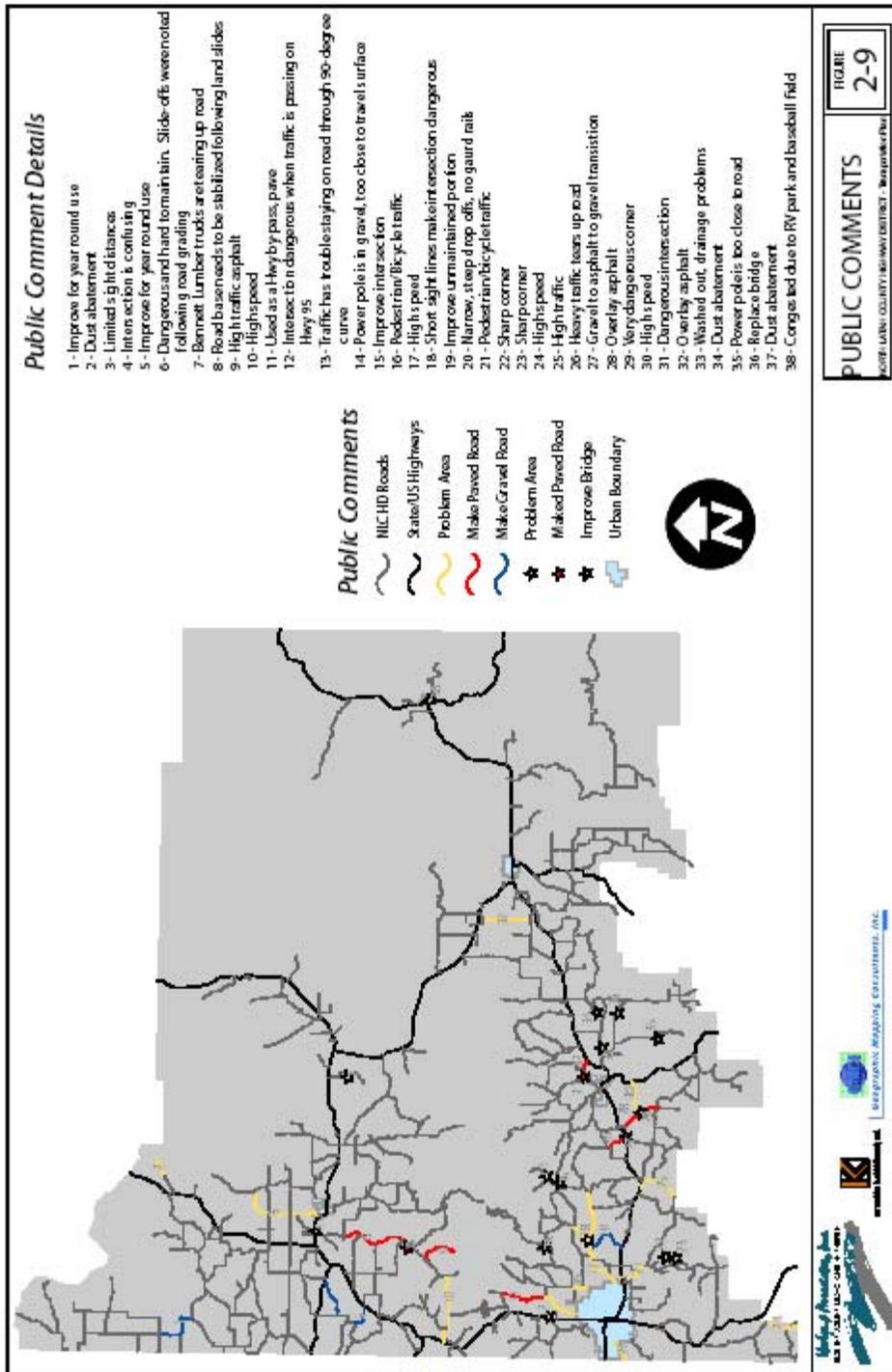
- There are several dangerous areas along the Latah Trail where it crosses county roads or runs adjacent to the roadway.
- Need more bicycle lanes.
- Many bicyclists, pedestrians, and horses along Lenville Road, especially between Highway 8 and Blaine Road.
- North Polk Street and Foothill Road is an unpaved, double-blind curve.
- Conflicts between logging trucks, vehicles, and recreational uses (pedestrians, camping, dirt bikes, and horses) at East Fork Road out of Bovill, and Flannigan Creek Road.
- Conflicts with joggers, bicycles, and people pushing baby strollers on narrow roads are especially problematic during harvest with increased truck traffic.
- Pedestrian and bicycle conflicts with vehicles on Mountain View Road.
- Horse conflicts at Randall Flat Road.
- All roads lack shoulders and centerlines. Roads need wider shoulders for bicycles.
- Bicycle and pedestrian projects are very different in safety and legal issues, and should be treated as separate entities.
- Develop a trail system that connects Potlatch and Genesee.

Agency-specific comments

- More cooperation is needed between the NLCHD, Latah County, and the city of Moscow. Share planning efforts rather than duplicate work.
- Efforts should be made to make through connections at the ends of dead-end county roads, especially around the city of Moscow.
- Coordinate with the city of Moscow by adopting the city's road classification system, especially within the Area of Impact and/or the route of the proposed "Ring Road Concept."
- Request that the county and highway district consider requiring right-of-way dedication as part of land subdivisions and lot splits.
- Need a dust abatement policy to address conflicts between timber companies and local residents.
- Load-limit changes need to be clear and timely. Develop a policy to notify logging operations of upcoming changes in load limits.
- Improve timber transport with better roads.
- Fire protection needs to be considered, and should improve with increased access. The location of new roadways could be partially determined by the need for better access for fire protection.
- The highway district should formalize easements across State Endowment Lands. Discussion at the State level about whether monetary compensation to Department of Lands is required.
- Access to Potlatch land needs to be more flexible.
- The United States Forest Service is willing to abandon old county roads to NLCHD for maintenance by NLCHD.
- Roadside vegetation hides address numbers and impedes emergency response.

Summary of Public and Agency Concerns

The general concerns identified by the public are compatible with the concerns identified by the highway district. Key concerns of the public were noted as high speeds, the need for more frequent maintenance of gravel roads, consistency in the construction of the existing roads (widening and shoulders), signage and centerline striping. Conflicts between vehicles, bicycles and pedestrians were noted in the areas surrounding Moscow, and a few popular areas for outdoor recreation. Comments from the city of Moscow called for more coordination of planning efforts. The highway district's long-term planning should consider the future needs of the city's transportation system inside the Moscow Area of Impact, primarily road classification, route preservation and right-of-way width dedication. Federal and State agencies' comments were related to establishing policies to improve efficient hauling of timber on county roads.



TRANSPORTATION FACILITIES

ROADWAY CLASSIFICATION SYSTEM

Functional classification is a process by which highways and streets are grouped into systems based on their character and the service they provide. The process begins with a distinction between urban and rural areas, which have fundamentally different characteristics. Urban areas are defined in Federal-aid highway law and designated by the Bureau of the Census. Rural areas are comprised of areas outside the boundaries of urban areas, and serving places with a population of less than 5,000.

All public roadways within the NLCHD boundary are operated and maintained under the auspices of one of seven jurisdictions: the Idaho Transportation Department (ITD), the NLCHD, and the cities of Moscow, Deary, Potlatch, Bovill, and Troy. The existing functional classifications correspond to ITD's definition for each roadway type. ITD's functional classification of roadways under NLCHD's jurisdiction is shown in Figure 2-10. Classification definitions are described below:

- *Principal Arterials* serve corridor movements, statewide and interstate travel, and connect major urban areas. Principal arterials would typically include the interstate system and major high traffic volume corridors connecting major activity centers.
- *Minor Arterials* link cities and larger towns, and provide service to higher density corridors that are served by the rural collector and local systems. Minor arterials typically include roadways that connect to the principal arterial roadway system, and provide for moderate length trips.
- *Major Collectors* provide access to smaller towns and county seats not on the arterial system. Major collectors serve more important inter-county travel, and typically include roadways connecting towns within the county.
- *Minor Collectors* link important local traffic generators and smaller communities within both rural and residential areas. Minor collectors typically include connections between the local street system and major collectors.
- *Local Roads* provide access to adjacent land, and service to travel relatively short distances.

ITD Facilities

US Highway 95 is the major north-south highway through the state of Idaho. Within the NLCHD, US 95 connects Moscow to Potlatch, while also connecting these two cities to points north and south of the NLCHD. US Highway 95 is the only roadway within the NLCHD that is classified by ITD as a principal arterial.

SH 8 serves as the primary connection between Moscow and the towns of Troy, Deary, Helmer, Bovill, and Elk River. SH 8 is classified as a major collector between Moscow and Deary, a minor arterial between Deary and Bovill, and a major collector from Bovill to the NLCHD eastern boundary.

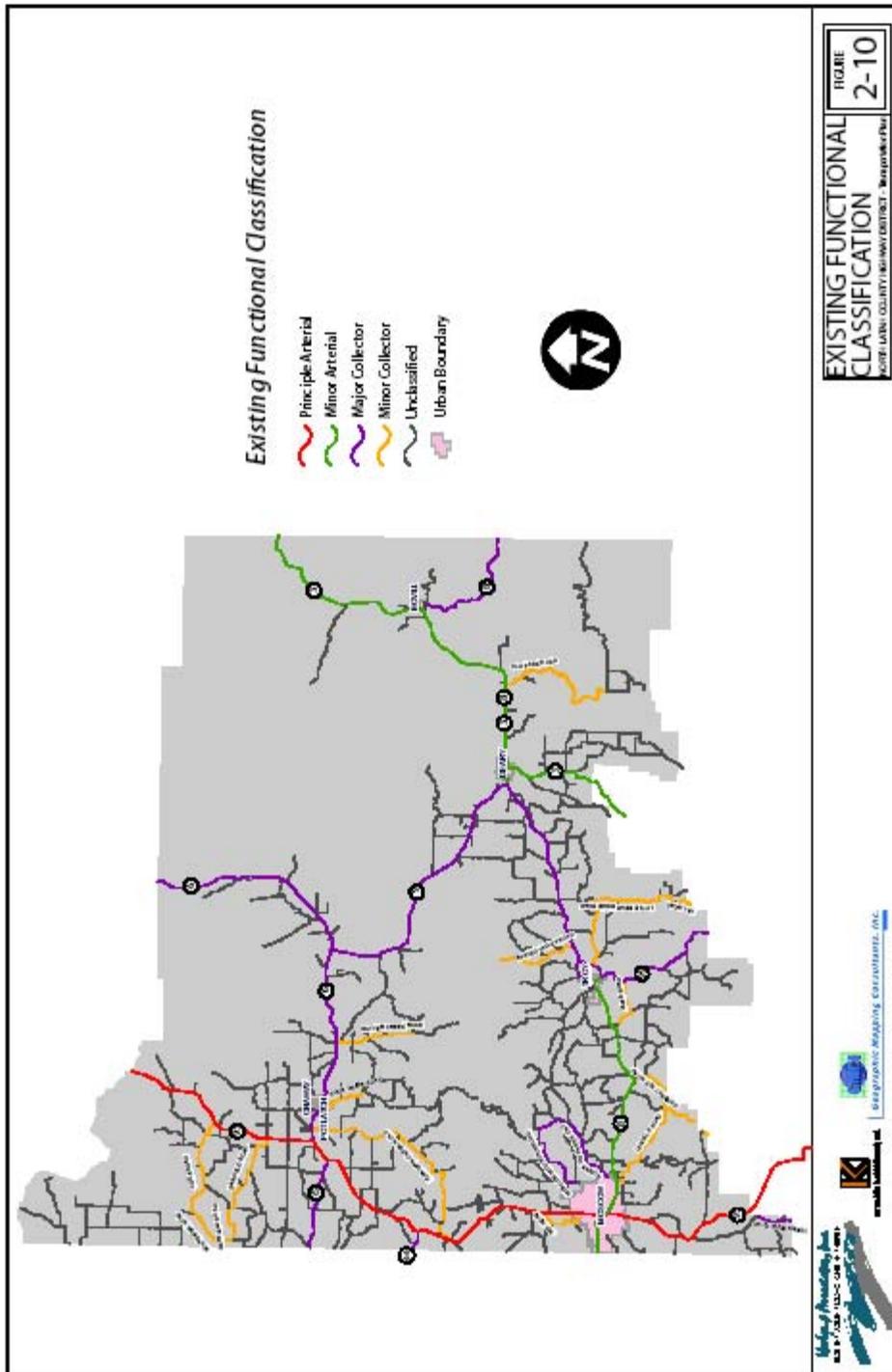
SH 99 serves as the connection from SH 8 in Troy to SH 3 in Kendrick. SH 99 is classified as a major collector.

SH 3 serves as the connection from SH 8 in Deary to Kendrick and Juliaetta to the south and from SH 8 in Bovill to Clarkia to the north. SH 3 and SH 8 join together and run concurrently between Deary and Bovill. SH 3 is classified as a minor arterial.

SH 6 serves as the connection from US 95 west to the Washington state line and US 95 east to Potlatch, Princeton, and Harvard. SH 6 is classified as a major collector.

SH 9 serves as the connection from SH 8 in Deary to SH 6 near Harvard. SH 9 is classified as a major collector.

SH 66 serves as the connection from US 95 west to the Washington state line. SH 66 is classified as a major collector.



NLCHD Facilities

The NLCHD roadway system is comprised of a number of meandering north-south and east-west roadways that provide connections to Highway 95, Highway 8, Highway 9, Highway 3, Highway 6, Highway 99, and between Moscow, Troy, Deary, Helmer, Bovill, Potlatch, Princeton, Harvard and Viola. In total, NLCHD maintains 589 miles of roadway. Of this total roadway mileage, approximately 128 miles is paved with asphalt, leaving 470 miles of roadway unpaved. A significant number of the roadways maintained by the NLCHD have been classified by ITD. See figure 2-10. These classified roadways are identified as follows:

Major Collectors:

- Frink Road
- Moscow Mountain Road
- Robinson Park Road
- Thorn Creek Road

Minor Collectors:

- Cora Road/Yellow Dog/Deep Creek Loop
- Driscoll Ridge Road from State Highway 99 to Lamb Road
- Flannigan Creek Road
- Four Mile Road
- Genesee-Troy Road
- Hatter Creek Road from State Highway 6 to Morris Road
- Lamb Road
- Lenville Road
- Little Bear Ridge Road
- Mix Road
- Rock Creek Road from State Highway 6 to Little Rock Creek Road
- Spring Valley Road
- Park Road

The remaining roadways are classified as local roads.

Access Management

The NLCHD has an established policy regarding granting access to the district's roads. In general, this policy states that any new access, or a change in access, will be by a permit process. That permit process is essentially an application submitted to the NLCHD Commissioners, and reviewed per an established set of acceptance criteria. Existing district policy establishes the following road classifications utilized in reviewing access permit applications:

- a) All-weather road conforming to current standards.
- b) All-weather road deviating from current standards.
- c) All-weather road, with seasonal restrictions in place.
- d) Seasonally maintained road.
- e) Minimal maintenance road.
- f) Non-maintained road, recognized as public right-of-way.

In addition, the NLCHD Policy on Road Standards, Maintenance, and Access also identifies a standard for driveway approaches. The NLCHD Commissioners have established the following criteria, based on roadway classification, for evaluating access permit applications.

- No new access permits of any type will be considered for non-maintained roads.
- Only farm access permits will be considered for seasonally maintained roads.
- Access permits for residences are considered only for residences accessing all-weather roads.
- Access permits are considered only for existing parcels on all-weather seasonally restricted roads.
- Access permits for development of one or two new parcels are considered for all-weather roads not seasonally restricted.
- Access permits for any development of three or more parcels will be considered only if the parcels are located on an all-weather road conforming to current standards.

If access is requested on a roadway not meeting acceptance criteria, developers are required to improve roadways to current standards, at their own expense, from the farthest point adjacent to their developments to the nearest district roadway meeting acceptance criteria.

City Facilities

The cities of Moscow, Potlatch, and Deary have classified roadways under their jurisdiction. Some of those classified roadways extend into the county and are detailed previously in the summary about the Moscow and Potlatch Comprehensive Plans. Troy, Deary, Bovill, Princeton, Harvard, Helmer, and Viola have classified roads through them that are under the jurisdiction of the Idaho Transportation Department, State Highway 8, State Highway 9, Highway 6, State Highway 3 and State Highway 99. The remaining city streets are classified as local roads.

EXISTING PEDESTRIAN AND BICYCLE SYSTEM

Latah County

The Latah Trail is a multi-use paved path between Moscow and Troy along the south side of State Highway 8. One inactive railroad line exists within the NLCHD that could potentially be converted to pedestrian and bicycle use; a segment between Troy and Kendrick, Idaho. Another inactive rail segment exists between Bovil and Harvard that could potentially become available for trail use in the future. Railroad right-of-ways are shown in figure 2-13. Some of the railroad lines have been sold to private parties, and segments of the right-of-ways may have been sold to adjacent property owners.

Public input from bicycle enthusiasts revealed a desired looped connection along the state highway system. People using bicycles to commute and recreate currently feel the highway roadway is not safe and rarely use it. Improvements to the state highway roadways in the form of wider shoulders would provide a safe loop from Moscow to Deary on SH 8 to Princeton on SH 9 (perhaps along an inactive railroad right-of-way) to Potlatch on SH 6, and back to Moscow on US Hwy. 95. The Moscow to Troy connection is provided by the Latah Trail.

South Latah Highway District

The South Latah Highway District Transportation Plan identified a potential multi-use path and a loop for bicycle transportation. These connections extend into North Latah County Highway District. With the fully paved Latah Trail between Moscow and Troy, bicyclists are looking for a practical connection between Troy and Kendrick along the railroad right-of-way. The right-of-way is the best connection for bicyclists because of the consistent easy grade. It is the only reasonable bicycle route between Troy and Kendrick. Lenville Road is a popular route for pedestrians and bicycles. If all the unpaved segments of Lenville Road, Genessee-Julietta Road, Old Highway 95 and Genessee-Troy Road were paved, this segment would be a popular route for bicyclists.

Moscow

Moscow's current street standards for collectors and arterials include bicycle lanes and concrete walks on both sides of the roadways. As land is annexed into the city, collectors and arterials will be developed with bicycle lanes and concrete walks, encouraging use of county roads for biking and walking by city residents.

Bicycle routes are illustrated in Moscow's Comprehensive Plan. The bicycle routes on the comprehensive map do not extend to the city limits or beyond. More updated bicycle and pedestrian routes are illustrated on the May 2006 map of Moscow's Paradise Path Task Force. The only significant Moscow path touching the Moscow city limit and beyond is the Latah Trail on the east side of Moscow south of SH 8.

Public input received on this project revealed heavy use by Moscow residents of several county roads adjacent to the city limits. Those sections of roadways are Lenville Road, Old Pullman Highway, Robinson Park Road, Mountain View Road, Idlers Rest Road, and North Polk Extension. The use of these county roads by city residents for recreational walking and biking is expected to increase as the population of Moscow grows.

Potlatch

The City of Potlatch Transportation Plan designates bicycle and pedestrian transportation systems. Bicycle routes and major pedestrian routes are designated along SH 6 to the western city limits, but not to the eastern city limits. The route extends southward along Pine Street/Rock Creek Road to the southern city boundary.

The City of Potlatch Comprehensive Plan proposes the development of a walking path along the Palouse River through easement agreements in Chapter 11, Parks and Recreation Element.

Troy, Deary, and Unincorporated Towns

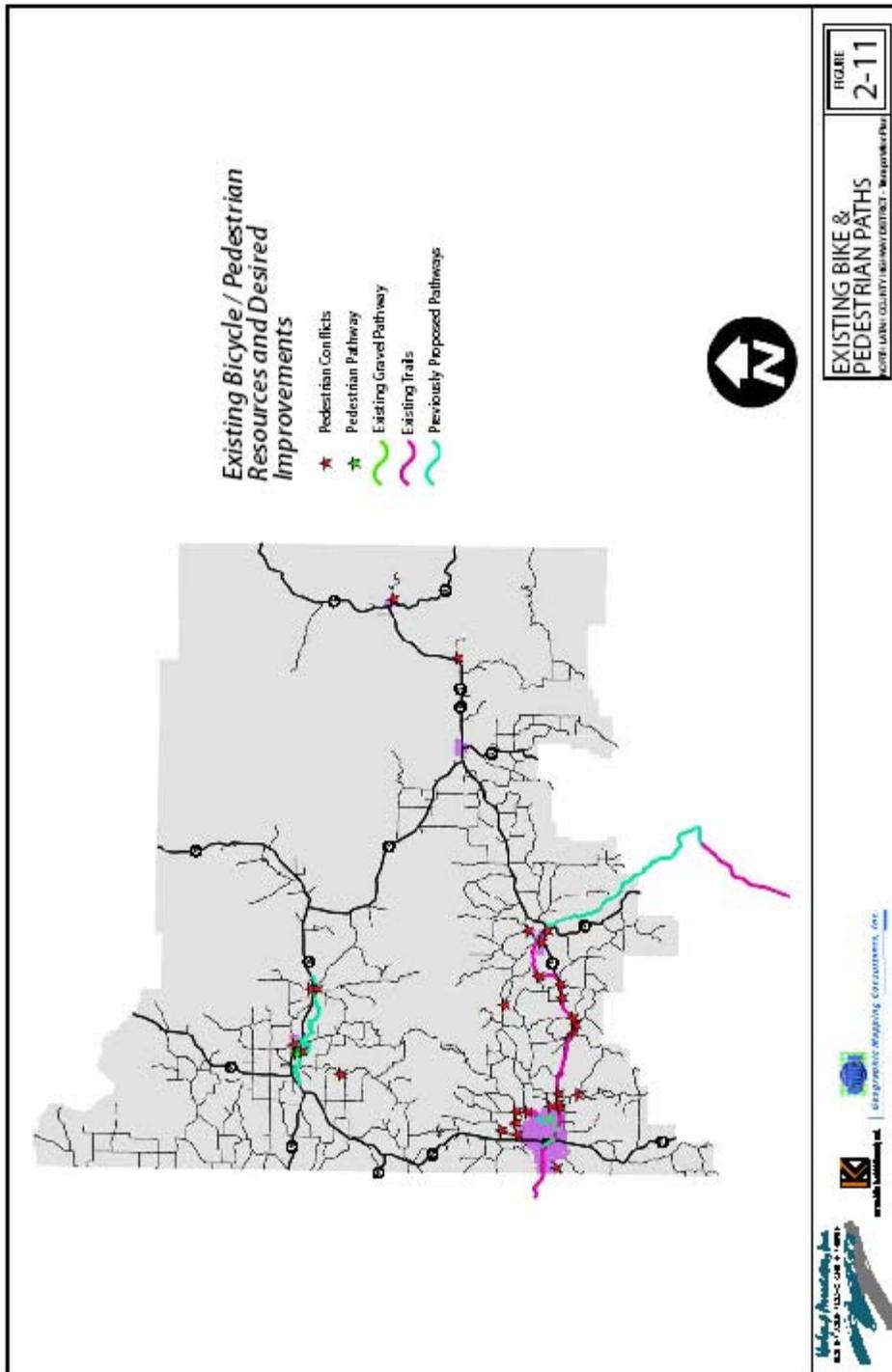
These small towns have not designated bicycle/pedestrian routes. The Latah Trail extends into the Troy city limits from the west.

The public provided input that in the Princeton area pedestrians, horses, and bicycles conflict with vehicle traffic on Hatter Creek Road and Gold Hill Road.

Limited comments were received about pedestrian, bicycle, Atv, and horse conflicts on Flannigan Creek Road, Randall Flat Road, Forks Road out of Helmer, and East Forks Road out of Bovill.

Summary of Existing Bicycle Pedestrian System

A diagram illustrating existing system components and components that have been identified in previous, unrelated planning efforts is shown in figure 2-11. The Latah Trail is the primary system component in the NLCHD. Areas where conflicts with vehicles were noted by the public have been identified on the diagram.



EXISTING PUBLIC TRANSPORTATION SYSTEM

The Public Transportation Advisory Committee (PTAC) is responsible for assisting ITD's Division of Public Transportation with statewide public transportation planning. The current primary goal of PTAC is to determine potential funding sources to provide operating funds for rural public transportation in Idaho. Federal funds have been readily available for capital equipment purchases and continues to be. The recently approved Federal SAFETEA-LU funding package provides operating funding with a 50% match for qualifying operating costs of public transportation. This recent appropriation will greatly benefit public transportation in rural counties such as Latah County.

In 1997, a study of Idaho Transportation Needs and Benefits was commissioned by ITD and conducted by HDR Engineering, Inc. The publication has served as a guide to PTAC and RPTAC to improve the public transportation system. A list of key findings for ITD District 2 follows:

- As of 1996, the region's population was 97,600. It is predicted to increase 1.8 % per year by 2015. Over half of the population resides within five miles of the Washington state line.
- Ten organizations provide public transportation in this region, ranging from private non-profit to private for-profit organizations. These providers include Interlink, Link Transportation Systems, Inc. (now out of business), COAST (Whitman County Council on Aging and Human Services, d.b.a. Moscow/Latah Public Transportation), Nez Perce Tribe, Northwest Trailways, Opportunities Unlimited, Inc., Palouse-Clearwater Environmental Institute (PCEI), Regional Public Transportation (d.b.a. Valley Transit) and Wheatland Express.
- Services were evaluated on a location-specific basis. Essentially the region needs a new fixed route service, enhanced demand-response services, a regional carpool program, and enhanced intercity service. A more detailed description of the region's transportation route needs is listed in the main report.

Some progress has been made in implementing improvements suggested in the study. Valley Transit is the primary regional public transportation provider serving the quad-cities area. A fixed-route bus system in Moscow was started in January of 2004 with much success. The ridership has been steadily rising. The average ridership in 2004 was 2,000 rides per month. In 2005 it was an average of 5,000 per month. Valley Transit expects an increase to 8,000 per month in 2006.

On-demand service such as Dial-a-Ride is operating on a very limited basis in Latah County. There is a need for additional demand-response evidenced by the fact that Valley Transit receives many requests that cannot be serviced. The current Dial-a-Ride service in Latah County is administered by COAST. The service is limited to the senior population because funding is provided by the Area Office on Aging. COAST Administrators were not available for comment. The on-demand service could possibly be expanded if Latah County provided funds to match federal funds.

The connection between the cities of Moscow and Lewiston will be improved with a pilot program fixed route commuter service. The service will begin in the fall of 2006 and will provide a stop in Genesee.

A vanpool has been implemented by PCEI. Two vans are provided for a vanpool between Lewiston and Moscow. The participants provide operating funds for the vanpool. In the spring of 2004, PCEI created a website whereby people interested in carpooling can link up with other interested carpoolers. They also use signage along rural roadways of South Latah Highway District as another method for advertising.

EXISTING AIR AND RAILROAD TRANSPORTATION SYSTEMS

Air Transportation

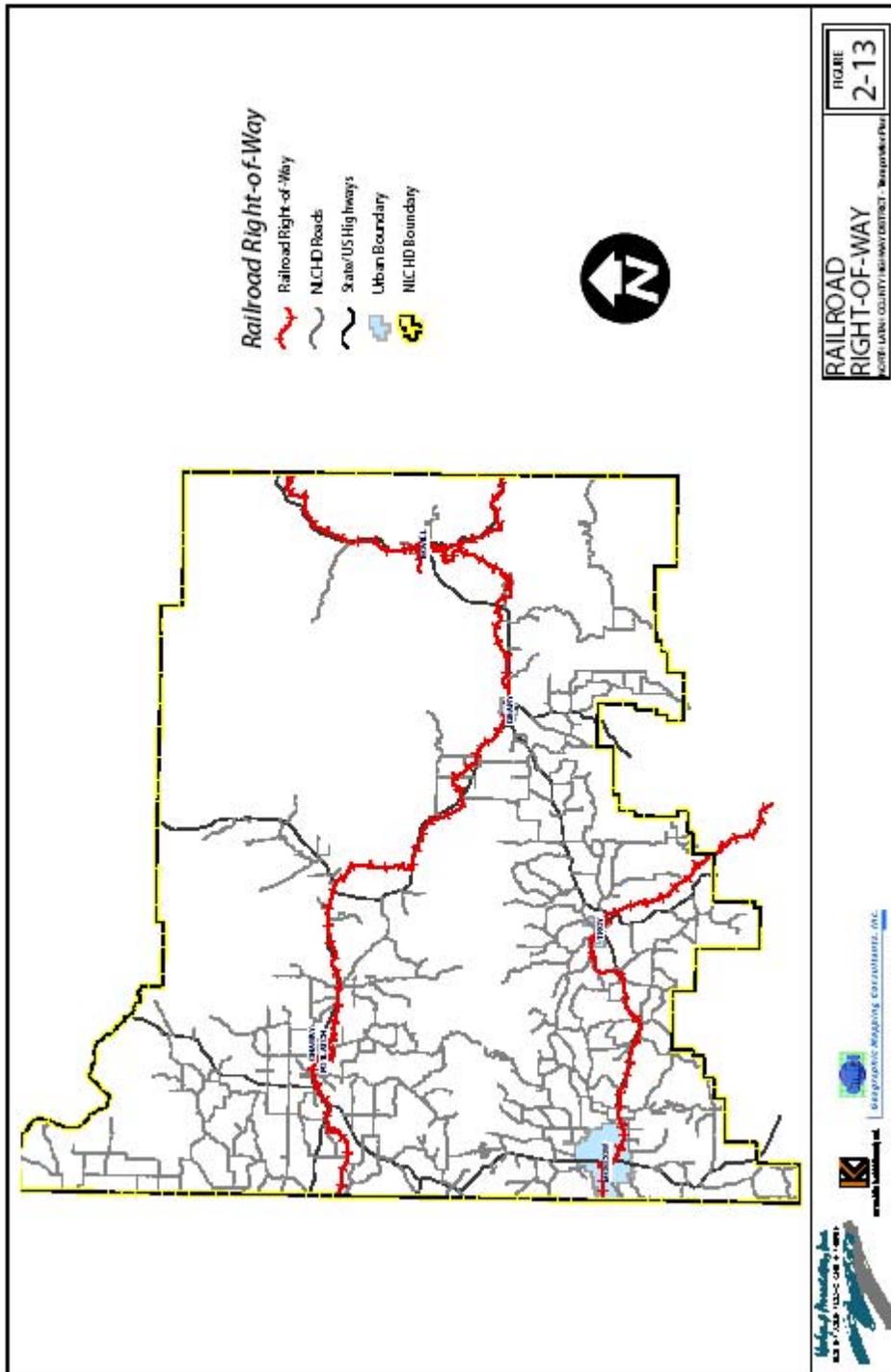
No commercial aviation facilities are located within the NLCHD. The nearest Commercial Regional Airports are the Lewiston Regional Airport and the Moscow-Pullman Regional Airport located in Lewiston, Idaho and Pullman, Washington. Both of these airports provide direct commercial service to Seattle. The Lewiston Airport also provides direct commercial service to Boise.

There has been discussion that the region would be well served by an airport located near Genesee which would serve the quad cities of Lewiston, Clarkston, Moscow and Pullman. ITD mentioned the potential for a regional airport while discussing long-term planning of an interchange at the intersection of Genesee-Juliaetta Road and Highway 95. ITD has purchased right-of-way to accommodate a larger interchange in the future. The potential airport was also discussed in the Genesee Comprehensive Plan.

at least five private landing strips are found within the NLCHD boundaries. They are used primarily for agricultural aerial spray services. One of these airstrips is called the Fountain's Airstrip located just south of Moscow city limits between Paradise Ridge Road and Highway 95. Another is located north of the Moscow city limits west of Highway 95. a search of aviation facilities in www.googleearth revealed three strips. A search in www.fallingrain.com revealed another one. A fifth strip, know as Naylor Airstrip, is located just north of the Moscow City limits on the west side of US 95. it is used exclusively for aerial spraying. This strip did not show up in any internet searches. Aviation facilities in the NLCHD are shown in figure 2-12.

Railroad Transportation

There are five railroad lines in the NLCHD boundary. Three of the lines have rails and ties in place and are considered active. The active lines run between Pullman, Washington and Moscow, Idaho (line 1), Palouse, Washington and Harvard, Idaho (line 2) and between Bovill, Idaho and Clarkia, Idaho (line 3). Two lines are inactive but the majority of the segments remain under railroad ownership. The line between Harvard and Bovill (line 4) and the line between Troy and Kendrick (line 5) are inactive and the rails and ties have been removed. Railroad lines 1, 2 and 3 are owned by Watco Companies, Inc., and railroad line 4 is owned by St. Maries River Railroad. Current ownership of the right-of-ways shown in Figure 2-13 has not been verified and should be researched prior to any discussions about acquisition. Two other lines in Latah County have been converted to private ownership; the Bovill to Elk River line and a line between Moscow and Spokane. These two lines are not shown in Figure 2-13.



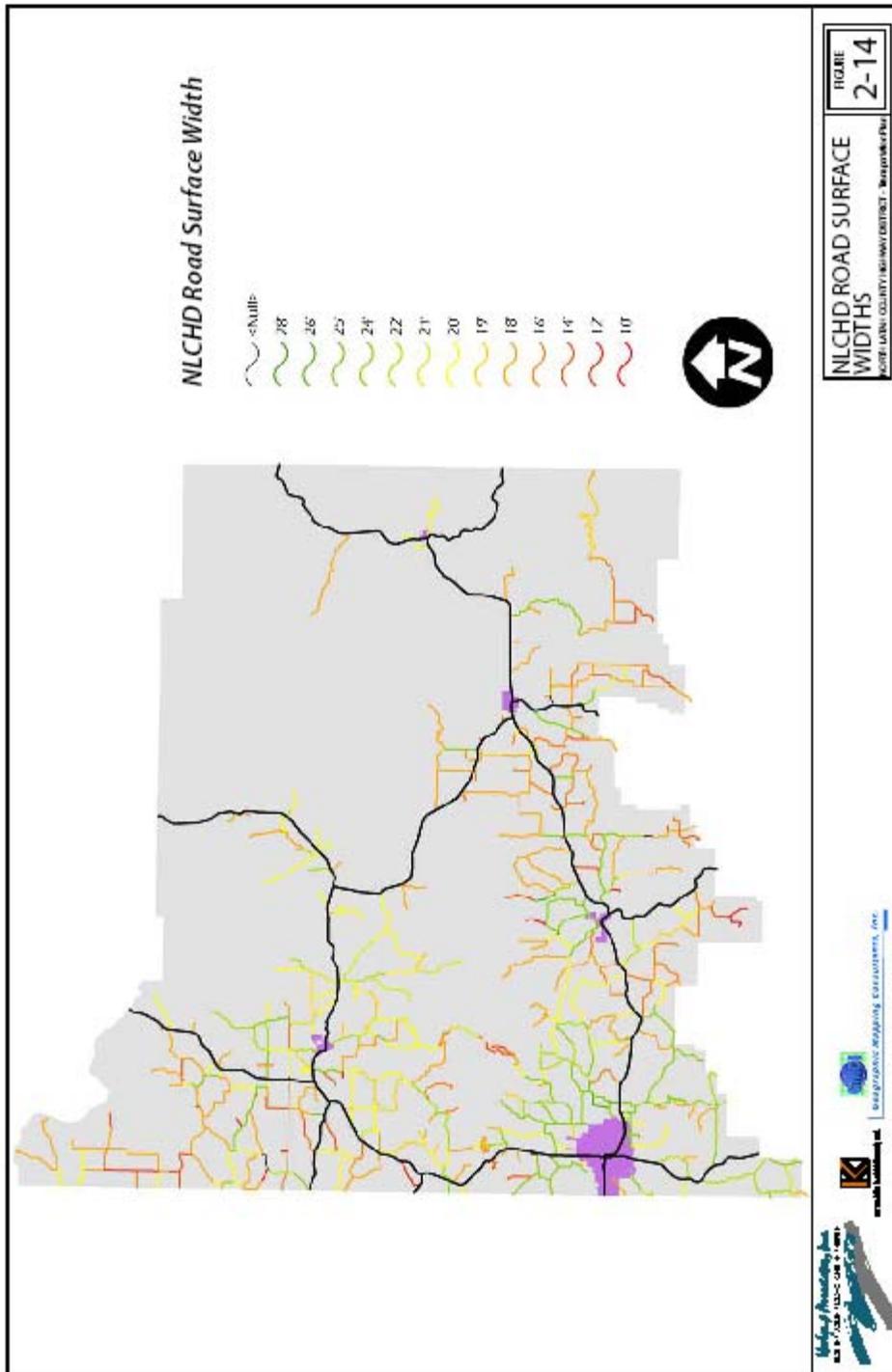
TRAFFIC OPERATIONS ANALYSIS

The traffic operations analysis identifies how a facility is operating given its existing geometric characteristics. This analysis is based on a comparison of the traffic demand to the capacity of the facility. Within the NLCHD most of the roadways are classified as local streets, and have traffic volumes much lower than the maximum capacity of the roadway. Therefore, the majority of the local road system was not evaluated with respect to traffic operations. Key roadways within the NLCHD were chosen for operational evaluation based on a review of the transportation system, input from the advisory committee, and a review of existing traffic volume data. These roadways are listed below:

- Big Meadow Road
- Blaine Road
- Cora/Garfield/Deep Creek Loop
- Driscoll Ridge Road
- Eid Road
- Flannigan Creek Road
- Foothill Road
- Four Mile Road
- Frink Road/Crumarine Loop
- Genesee-Troy Road
- Hatter Creek Road
- Idlers Rest Road
- Lamb Road
- Lenville Road
- Lewis Road
- Little Bear Ridge Road
- Mill Road
- Mix Road
- Moscow Mountain Road
- Mountain View Road
- O' Donnell Road
- Old Pullman Road
- Onaway Road
- Palouse River Drive
- Paradise Ridge Road
- Park Road
- Polk Street Extension
- Randall Flat Road
- Robinson Park Road
- Rock Creek Road
- Saddle Ridge Road
- Sand Road
- Spring Valley Road
- Texas Ridge Road
- Thorn Creek Road
- Wallen Road

ROADWAY CONFIGURATION AND TRAFFIC CONTROL

As part of the data collection effort, all NLCHD roadways were inventoried. This involved measurement of all the roadway widths shown in Figure 2-14, and inventory of the roadway surfaces shown in Figure 2-15.



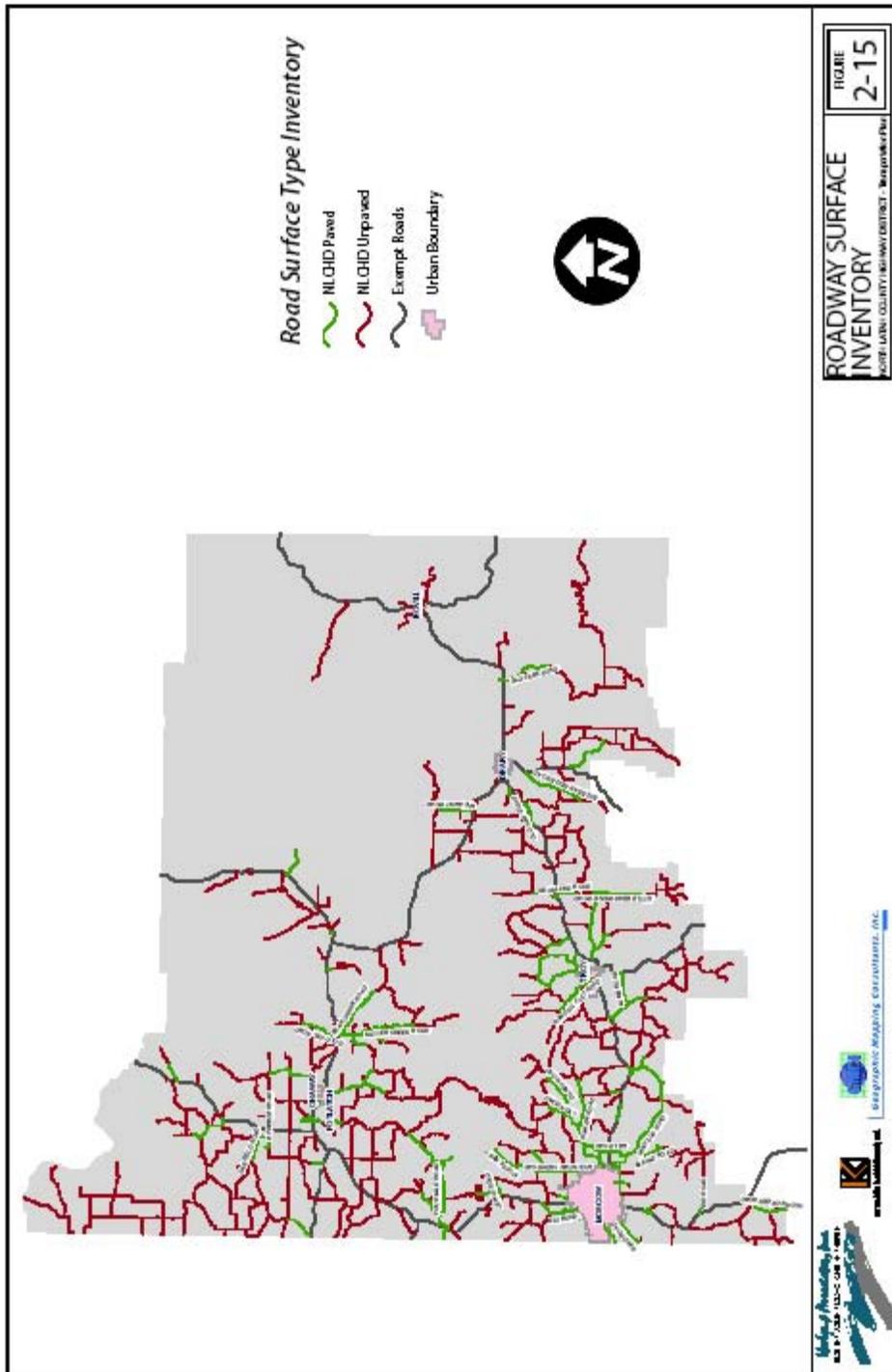


Table 2-1 provides a summary of the characteristics of the key roadways that were evaluated as part of the operational analysis.

**Table 2-1
 Existing Transportation Facilities and Roadway Designations**

<i>Roadway</i>	<i>Functional Classification</i>	<i>Cross Section</i>	<i>Surface Type</i>	<i>Roadway Width (ft)</i>	<i>Speed Limit</i>
Major Collectors					
Frink Road/Crumarine Loop	Major Collector	2 lanes	Unpaved	18-20	NP
Moscow Mountain Road	Major Collector/Local Road	2 lanes	Paved/Gravel/Dirt	14-24	35 mph
Robinson Park Road	Major Collector	2 lanes	Paved	22-26	35 mph
Thorn Creek Road	Major Collector	2 lanes	Paved	24	NP
Minor Collectors					
Cora/Garfield/Deep Creek Loop	Minor Collector	2 lanes	Gravel	18-22	35 mph
Driscoll Ridge Road	Minor Collector	2 lanes	Paved	22	NP
Flannigan Creek Road	Minor Collector	2 lanes	Paved/Gravel	20-24	NP
Four Mile Road	Minor Collector	2 lanes	Paved	22	35 mph
Genesee-Troy Road	Minor Collector	2 lanes	Paved/Gravel	24	35 mph
Hatter Creek Road	Minor Collector/Local Road	2 lanes	Paved/Gravel	20-22	35 mph
Lamb Road	Minor Collector	2 lanes	Paved	22	NP
Lenville Road	Minor Collector	2 lanes	Paved	24	NP
Little Bear Ridge Road	Minor Collector	2 lanes	Paved/Gravel	18-24	NP
Mix Road	Minor Collector	2 lanes	Paved	24	NP
Park Road	Minor Collector	2 lanes	Paved	24	NP
Rock Creek Road	Minor Collector/Local Road	2 lanes	Paved/Gravel	20-24	NP
Spring Valley Road	Minor Collector	2 lanes/1 lane	Paved/Gravel	14-26	25 mph
Local Roads					
Big Meadow Road	Local Road	2 lanes	Paved/Gravel	18-24	NP
Blaine Road	Local Road	2 lanes	Paved	24	NP
Eid Road	Local Road	2 lanes	Paved/Gravel	22-24	35 mph
Foothill Road	Local Road	2 lanes	Gravel	20-24	35 mph
Idlers Rest Road	Local Road	2 lanes	Paved/Gravel	24	NP
Lewis Road	Local Road	2 lanes	Paved	24	35 mph

Mill Road	Local Road	2 lanes	Paved	24	35 mph
Mountain View Road	Local Road	2 lanes	Paved	24	35 mph
O'Donnell Road	Local Road	2 lanes	Gravel	24	NP
Old Pullman Road	Local Road	2 lanes	Paved	18-20	35 mph
Onaway Road	Local Road	2 lanes	Gravel	18-21	NP
Palouse River Drive	Local Road	2 lanes	Paved	24-25	35 mph
Paradise Ridge Road	Local Road	2 lanes	Gravel	20	NP
Polk Street Extension	Local Road	2 lanes	Gravel	20	NP
Randall Flat Road	Local Road	2 lanes	Paved/Gravel	20-24	NP/25
Saddle Ridge Road	Local Road	2 lanes	Gravel	18-20	NP
Sand Road	Local Road	2 lanes	Paved	21-24	25 mph
Texas Ridge Road	Local Road	2 lanes	Paved/Gravel	20-24	35 mph
Wallen Road	Local Road	2 lanes	Paved/Gravel	18-24	NP

NP = Not posted.

As shown in Table 2-1, many of the study roadways include both paved and gravel sections with varying roadway widths.

TRAFFIC VOLUMES

Daily traffic volumes were used for the operational analysis. Daily traffic volume counts were conducted primarily in September 2005, with data recorded at each location for periods of three to six days. The counts were taken after the harvest and planting periods, and while school was in session. In addition, historical daily traffic counts were provided by NLCHD, the city of Moscow, and ITD. The existing average daily traffic is shown in Figure 2-16.

OPERATIONAL ANALYSIS

Using the daily traffic volumes shown in Figure 2-16, an operational analysis was conducted on each of the study area roadways to determine existing levels of service, and identify any capacity deficiencies. For the two-lane paved sections, a level service of C was used to evaluate the traffic operations. A level of service of C typically represents driving conditions that may cause drivers to feel restricted, but not objectively so. The restriction would be due to a slightly slower than desired average travel speed, or slightly more time spent following other vehicles than typically expected.

Because many of the study roadways are unpaved, have low traffic volumes, and vary significantly in design and roadway surface, a standard level of service analyses as described in the ITD Design Manual or in the 2000 Highway Capacity Manual is not applicable. Therefore, instead of the traditional approach to capacity analysis conducted within urban areas, an alternative method was utilized. The alternative capacity analysis method is explained below, and determines a maximum capacity for each type of roadway based on the roadway classification and roadway type.

ROADWAY CLASSIFICATION

Roadway classification is an important aspect of evaluating whether a road is designed appropriately for the function it serves and the traffic it is expected to carry. Major collectors are the highest classification

for an NLCHD maintained roadway, and should meet the highest level of adopted road standards. Minor collectors and local roads within the district often function to serve intra-district travel and provide access to private property; therefore, these roadways typically do not experience as much usage, and may not be designed to the same standards as a major collector. Many of these lower level roadways are unpaved, and do not carry traffic volumes that would require paving according to NLCHD proposed roadway standards.

ROADWAY TYPE

The type of roadway is important, because it dictates the amount and type of traffic that can be accommodated safely. The majority of paved roadways in the NLCHD are more than 20 feet in width, with maximum recommended volumes ranging between 400 and 2000 vehicles per day based on the American Association of State Highway and Transportation Officials (AASHTO). "A policy on the Geometric Design of Highways and Streets." 2004. A few of the paved roadways, and many of the unpaved roadways within the NLCHD have widths less than 20 feet. For low volume roadways (paved and unpaved), the design parameters and maximum recommended traffic capacity are based on a method of risk assessment that evaluates the trade-offs between construction and maintenance costs, and the estimated impacts of traffic crash frequency and severity. This method is described in the Guidelines for Geometric Design of Very Low Volume Local Roads (ADT < 400) published by the American Association of State Highway and Transportation Officials.

Unpaved roadways maintained by the NLCHD range from narrow single-lane dirt roads to wide, well-maintained gravel roads that are classified as major collectors. The unpaved roadways in the NLCHD fall into three categories, which are described below and illustrated in Figures 2-17 through 2-19.

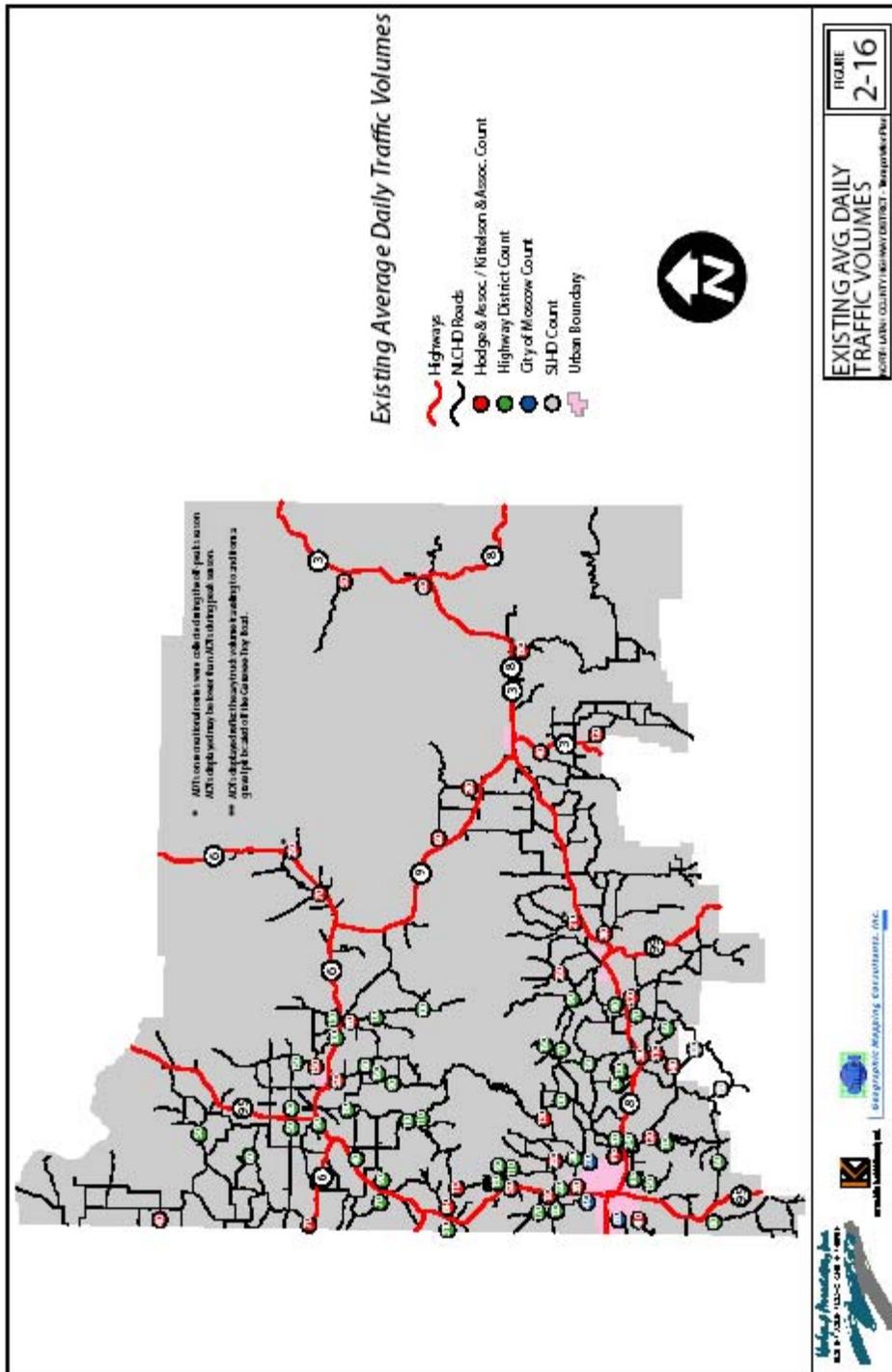




Figure 2-17. Gravel Single-Track Road

A few of the roads within the NLCHD are two-track, single-lane roads with gravel or dirt surfaces. Two-track roads range between 12 feet and 16 feet in width, often with wide areas or small pull-outs at various locations to allow for vehicles in opposite directions to pass, if needed. These roadways have very low capacity because they cannot accommodate a significant number of vehicles in opposite directions at the same time. Also, most are not maintained on a regular year-round basis. The recommended volume of traffic for two-track facilities is 50 ADT or less, but they may carry volumes up to 100 ADT. Figure 2-17 (*left*) shows a typical gravel two-track road.

Figure 2-18. Gravel Three-Track Road



Some of the roadways within the NLCHD are wider than a single lane, but not wide enough to provide for two vehicles in opposite directions to pass at full speed. These roads are typically around 18 feet wide. This type of roadway is not defined in standard design and operational criteria, but essentially operates as a single lane roadway with continuous turnouts. The recommended volume of traffic for three-track facilities is approximately 100 ADT, but they may carry volumes up to 250 ADT. Figure 2-18 (*left*) shows a typical gravel three-track road.



Figure 2-19. Gravel Two-Lane Road

The majority of the key roadways in NLCHD are unpaved two-lane roadways. These roadways are typically major local roads or collectors, and have widths that range between 18 feet and 26 feet. For roadways 18-20 feet wide, the maximum recommended volume is 250 ADT. For roadways 20-24 feet wide, the maximum recommended volume is 400 ADT. Figure 2-19 (*left*) shows a typical gravel two-lane road.

Table 2-2 displays the capacity and minimum width criteria used to evaluate each of the key roadways within the NLCHD.

**Table 2-2
 Roadway Volume and Width Evaluation Criteria**

Roadway Type	Maximum Recommended Volume	Operating Speed	Usable Surface Width ¹
One Lane (2 Track) Unpaved	<50 ADT	<30 mph	12-16 ft
One Lane (3-Track) Unpaved	<100 ADT	<35 mph	14-18 ft
Two Lane (4-Track) Unpaved – Minor	<250 ADT	<40 mph	18-20 ft
Two Lane (4-Track) Unpaved – Major	<400 ADT	<45 mph	20-24 ft
Narrow Two Lane Paved	<400 ADT	<40 mph	18-20 ft ²
Two Lane Paved Low Vol	<400-600 ADT	<45 mph	Min 22 ft ²
Two Lane Paved Mid Vol. – Collector	400-1,500 ADT	<45 mph	Min 24 ft ²
Two Lane Paved High Vol. – Collector	>1,500 ADT	<45 mph	Min 24 ft ²

¹All roadway width values assume travel way and usable shoulders.
²Assumes at least 1ft shoulders (not included in roadway surface width).

EXISTING CONDITIONS OPERATIONAL ANALYSIS RESULTS

An operational evaluation of each of the study roadways included a comparison of the traffic volume, roadway width, and surface type to the criteria in Table 2-2. Volume and roadway width criteria were evaluated as described below:

ADT Traffic Volume Criteria: Identifies whether the volume on a particular roadway is within the range for the facility type and surface type. These criteria identify segments of roads that may need to be upgraded to another surface type or local roads that are carrying volumes in the range of a collector.

Usable Surface Width Criteria: Identifies whether the roadway width is adequate for the volume and surface type on the roadway. These criteria identify segments that may need to be widened, in addition to any surface upgrades.

Surface Type Criteria: Identifies whether an upgrade from a gravel to paved surface is needed due to the type of vehicles using the roadway, classification, and volume. It is assumed that, in most cases, major collectors and minor collectors should have a paved surface.

As described above, all three criteria are inter-related, and therefore most roadways that do not meet one criterion, often do not meet another criterion. Table 2-3 displays the results of the operational evaluation, showing the key NLCHD roadways or sections of roadway.

**Table 2-3
 Existing Conditions Roadway Operational Evaluation**

<i>Roadway</i>	<i>Average Daily Traffic</i>	<i>Meets ADT Criteria?</i>	<i>Roadway Width (ft)</i>	<i>Meets Width Criteria?</i>	<i>Adequate Surface Type?</i>
Major Collectors					
Frink Road/Crumarine Loop	60	Yes	18-20	No	No
Moscow Mountain Road -Paved section	240	Yes	24	Yes	Yes
-Unpaved (N of Frink Road)	130	Yes	14-20	Partial	Yes
Robinson Park Road	1,710	Yes	22-26	Partial	Yes
Thorn Creek Road	No count	N/A	24	Yes	Yes
Minor Collectors					
Cora/Garfield/Deep Creek Loop	40-60	Yes	18-22	Yes	Yes
Driscoll Ridge Road -Paved (N of Lamb Road)	570	Yes	22	Yes	Yes
Flannigan Creek Road -Paved (N of Short Lane)	130	Yes	24	Yes	Yes
-Paved (S of Davis Road)	110	Yes	22	Yes	Yes
-Unpaved (Between Short Lane & Davis Rd)	110	Yes	20	Yes	No
Four Mile Road	640	Yes	22	No	Yes
Genesee-Troy Road -Paved (N of Lenville Rd)	510	Yes	24	Yes	Yes
-Unpaved (S of Lenville Rd)	135	Yes	24	Yes	No
Hatter Creek Road -Paved (N of Guernsey Cut-Off)	850	Yes	21	No	Yes
-Paved (N of Morris Road)	100	Yes	20-22	Yes	Yes
Lamb Road	500	Yes	22	Yes	Yes
Lenville Road	120	Yes	24	Yes	Yes
Little Bear Ridge Road	310	Yes	18-24	Partial	Yes
Mix Road	190	Yes	24	Yes	Yes
Park Road	130	Yes	24	Yes	Yes
Rock Creek Road -Paved (N of Guernsey Cut-Off)	520	Yes	22	Yes	Yes
-Paved (S of Guernsey Cut-Off)	150	Yes	24	Yes	Yes
-Unpaved	90	Yes	20	Yes	Yes
Spring Valley Road -Paved section	210	Yes	22	Yes	Yes
-Unpaved (northern section)	Unknown	N/A	14	No	No

Roadway	Average Daily Traffic	Meets ADT Criteria?	Roadway Width (ft)	Meets Width Criteria?	Adequate Surface Type?
Local Roads					
Big Meadow -Paved (S. of Orchard Loop) -Unpaved	260 260	Yes Yes	24 18-20	Yes Yes	Yes Yes
Blaine Road	130	Yes	24	Yes	Yes
Eid Road -Paved (West) -Unpaved (East)	65 65	Yes Yes	24 22	Yes Yes	Yes Yes
Foothill Road -Paved (W of Idlers Rest Road) -Unpaved (N of Idlers Rest Road)	220 110	Yes Yes	24 20	Yes Yes	Yes Yes
Idlers Rest Road	260	Yes	24	Yes	Yes
Lewis Road	520	Yes	24	Yes	Yes
Mill Road	240-500	Yes	24	Yes	Yes
Mountain View Road	770	No	24	Yes	Yes
O'Donnell Road	130	Yes	24	Yes	Yes
Old Pullman Road	680	No	18-20	No	Yes
Onaway Road	150	Yes	18-21	Yes	Yes
Palouse River Drive	1,550	No	24-25	Yes	Yes
Paradise Ridge Road	150	Yes	20	Yes	Yes
Polk Street Extension	350	Yes	20	Yes	Yes
Randall Flat Road -Unpaved (W. of Tamarack Road) -Paved (E. of Tamarack Road)	70 90	Yes Yes	20 24	Yes Yes	Yes Yes
Saddle Ridge Road	110	Yes	18-20	Yes	Yes
Sand Road	410	Yes	21-24	Partial	Yes
Texas Ridge Road -Paved -Unpaved	120 120	Yes Yes	24 20	Yes Yes	Yes Yes
Wallen Road	160	Yes	18-24	Yes	Yes

As shown in Table 2-3, the most common deficiencies among the study roadways are minor collectors that do not meet the roadway width criteria and heavily traveled local roads that exceed the maximum recommended volume.

In addition, a few local roads were identified as having traffic volumes that exceeded the volumes of many of the major and minor collectors in the NLCHD. These include:

- Lewis Road
- Mountain View Road
- Sand Road
- Old Pullman Road
- Mill Road
- Palouse River Drive

The high traffic volumes observed on these roadways is a direct result of the fact that they are adjacent to the Moscow urban area, where traffic volumes are typically higher than in rural areas throughout the NLCHD. All of these roadways should be considered for an upgrade in functional classification in order to receive the proper funding and maintenance required to continue to carry the higher traffic volumes.

TRAFFIC SAFETY

The most important aspect of a transportation system is public safety. The safety analysis described in this section focuses on two key measures of safety. One measure is the crash history for the study roadways within the NLCHD. The crash history is used to identify specific locations or roadway segments that may have safety deficiencies. The other measure is defined in terms of adequate sight distance, which is particularly crucial at high volume intersections in the NLCHD. A lack of adequate intersection sight distance does not allow drivers to see potential conflicts prior to negotiating the intersection.

INTERSECTION CRASH ANALYSIS

The crash history of the study roadways was examined to identify existing safety problems. ITD crash data for the period January 2000 through December 2004 were used in this analysis. The ITD crash data only includes reported crashes. It is inevitable, particularly in rural areas, that many more unreported crashes occurred that were unable to be included in this analysis.

Table 2-4 shows the number of crashes and the crash rates for specific study roadways. Not all of the study roadways are shown in Table 2-4. The roadways shown are those that either had a considerably high number of crashes, a considerably high crash rate, or both. The crash rates are expressed in terms of crashes per million vehicle miles traveled. The crash rates are calculated using the number of crashes on the roadway, the ADT collected at a certain point along the roadway, and the total length of the roadway. Keep in mind that due to the limitations of these input parameters, the calculated crash rates are merely planning-level estimates.

For comparison purposes, the statewide average crash rate in 2004 for all roadways combined in the state of Idaho is 1.91 crashes per million vehicle miles (MVM) and the statewide average in 2004 for the local (non-state) roadway system was 2.45 crashes/MVM. Figure 2-20 illustrates the reported crashes in the study area. Each crash during the five-year period is represented by a red dot. Multiple crashes in the same location are represented by a larger red dot, which is sized according to the number of crashes in that location.

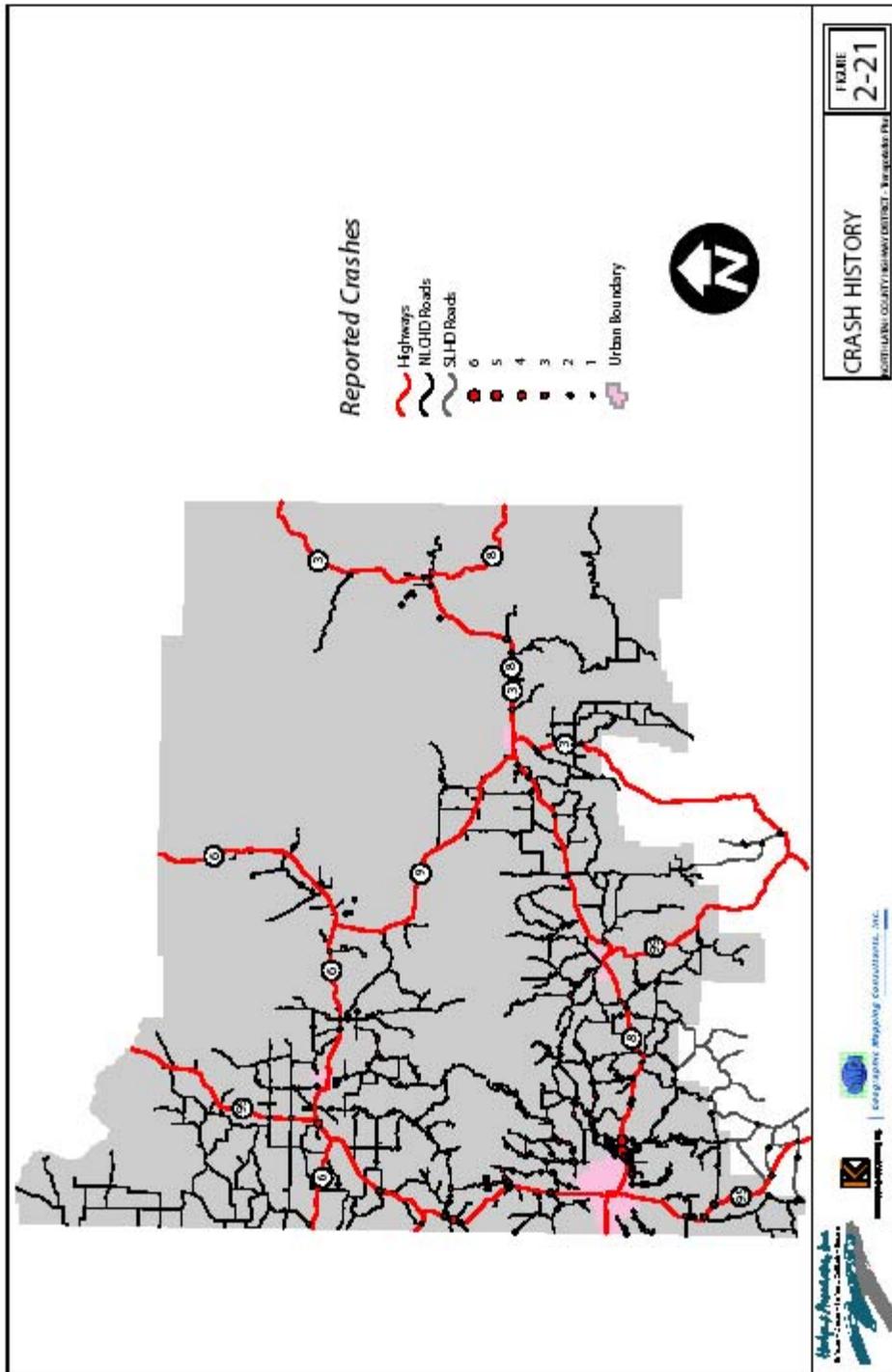
**Table 2-4
 Crash Rates for Study Roadways**

<i>Roadway</i>	<i>Number of Crashes</i>	<i>Crash Rate (Crashes/MVM)</i>
Four Mile Road	13	4.8
Lenville Road	18	15.1
Mill Road	15	9.2
Moscow Mountain Road	25	12.1
Paradise Ridge Road	9	12.6
Randall Flat Road	11	13.3
Robinson Park Road	39	4.2
Wallen Road	12	10.3

Since crash rates are determined based on the number of crashes and traffic volumes, they are significantly impacted by very low traffic volumes, which are common on many of the study roadways. Therefore it is important to assess circumstances that may be contributing to a high crash rate on a particular roadway or section of roadway. As shown in Table 2-4, the crash rates vary significantly.

A comprehensive review of the crashes on the roadways listed in Table 2-4 revealed that the most common contributing circumstance to a crash on each of these roadways was vehicles traveling at speeds too fast for conditions. Comments received from the public and the NLCHD commissioners, along with field observations by the project team, give some indication of roadway deficiencies that may be contributing to crashes on these roadways:

- Lenville Road: There is a heavy concentration of crashes near the intersection with Mill Road where sight distance was observed to be inadequate given the high speeds on Lenville Road. Also, a number of comments were received regarding frequent icy and treacherous conditions on Lenville Road.
- Randall Flat Road: Pedestrian/vehicle conflicts were observed, and several comments were received regarding a dangerous intersection at the junction of Randall Flat Road and Hendrix Road.
- Paradise Ridge Road: The roadway is very narrow and steep, with lots of corrugation.
- Moscow Mountain Road: A number of slide-offs were observed on the 90-degree corner at the intersection with Frink Road.
- Wallen Road: Poor sight distance and high speeds at the intersection with Robinson Park Road were noted.
- Mill Road: There is a heavy concentration of crashes at the junction with SH 8, and at the intersection with Lenville Road where the intersection sight distance is insufficient.
- Four Mile Road: Seven out of the thirteen reported crashes on Four Mile Road occurred at the junctions with US 95 and Viola Main Street, located in close proximity to each other.
- Robinson Park Road: The lack of speed limit signs may be contributing to the high speeds observed along the roadway. A large number of comments were received regarding slick conditions and lack of sanding along Robinson Park Road during the winter months. Also, several comments were made noting pedestrian/vehicle conflicts along the roadway.



Intersection Sight Distance

A number of locations throughout the NLCHD were identified as having sight distance deficiencies. Out of these locations, only those with a high number of reported crashes or a high volume are discussed below. This is not considered to be an exhaustive list of every sight distance deficiency in the NLCHD, but is meant to highlight severe sight distance deficiencies, or deficiencies in high volume locations. The most critical sight distance deficiencies are illustrated in Figures 2-21 – 2-27.

- Robinson Park Road/Wallen Road: Drivers have been observed traveling at fast speeds through this intersection, which has limited sight distance for drivers looking to the west attempting to turn from Wallen Road onto Robinson Park Road.
- Genesee-Troy Road/Cornwall Road: This junction functions as a pair of two closely-spaced intersections, both of which are skewed intersections with sight distance deficiencies. The close proximity of the two intersections, the sight distance issues caused by the skewed approaches, the location of existing structures, and high speeds all have an effect on the safety of this junction.
- Little Bear Ridge Road/Hill Road: This intersection has limited sight distance for drivers looking to the south attempting to turn left from Hill Road onto Little Bear Ridge Road.
- Mix Road: There is very limited sight distance at a couple of private driveway access points just to the north of the Moscow city limits. A mirror has been placed at one of the access points located on a blind curve. This mirror is used by drivers entering onto Mill Road to see vehicles approaching from the south.
- Big Meadow Road/McKeehan Road: This is a skewed intersection located just northeast of the Troy city limits with poor sight distance for westbound drivers on McKeehan Road. This is caused by a combination of the skewed McKeehan Road approach and the lower elevation of McKeehan Road to the east of Big Meadow Road.
- Frink Road/Moscow Mountain Road: Coming from the west, Moscow Mountain Road runs east/west and turns 90 degrees at the junction with Frink Road to run north/south. The sight distance for drivers heading west on Frink Road is limited due to this sharp horizontal curve and overgrown vegetation at the intersection of the two roadways.
- Rock Creek Road just south of the Potlatch city limits: Poor sight distance exists on a combination crest vertical curve and horizontal curve located immediately to the south of the Potlatch city limits. Also, the superelevation of the roadway is sloped towards the outside of the horizontal curve, making it more difficult for drivers to negotiate the curve.

Figure 2-21. Mill Road/Lenville Road



Figure 2-21 shows the Mill Road/Lenville Road intersection where the southbound Mill Road approach has poor sight distance for drivers looking to the west attempting to turn left onto Lenville Road. The poor sight distance is due to the combination of the horizontal and vertical curve shown in the picture. Mitigation opportunities include modifying the control at Mill Road from yield control to stop control, reducing the speed limit on Lenville Road and/or cutting back the bank on the south side of Lenville Road.

Figure 2-22. Flannigan Creek Road/Davis Road



Figure 2-22 shows the Flannigan Creek Road/Davis Road intersection where the combination of poor sight distance and change in roadway characteristics has contributed to a reasonably high number of crashes. Sight distance is limited for drivers on Davis Road turning either right or left onto Flannigan Creek Road (sight distance looking to the south is shown in Figure 2-22) due to the location of the intersection at the bottom of a sag vertical curve and on a horizontal curve. Also, Flannigan Creek Road transitions from a paved roadway to a gravel roadway at the intersection. Mitigation opportunities include paving Flannigan Creek Road through the intersection, trimming foliage, and/or providing stop control on Davis Road.

Figure 2-23. Driscoll Ridge Road/Lamb Road



Figure 2-23 shows a sharp horizontal curve on the north approach immediately before the Driscoll Ridge Road/Lamb Road intersection. Sight distance is very limited for southbound drivers approaching the intersection and westbound drivers on Lamb Road turning left onto Driscoll Ridge Road. One mitigation opportunity includes the addition of warning signage leading up to the intersection and modification of the signage at the intersection. A second mitigation opportunity would involve cutting back the bank on the east side of Driscoll Ridge Road to eliminate the blind curve on the north side of the intersection. A third mitigation opportunity is to consider elevating the south leg of the intersection to provide improved sight distance.

Figure 2-24. Foothill Road – North of Polk Extension



Figure 2-24 shows a sharp horizontal curve on Foothill Road just north of the Polk Street Extension/Foothill Road intersection where a high number of crashes have been reported. Mitigation at this location would involve cutting back the bank on the inside of the curve to increase sight distance.

Figure 2-25. Randall Flat Road/Hendrix Road



Figure 2-25 shows a sharp horizontal curve immediately to the east of the Randall Flat Road/Hendrix Road intersection. Not only is there poor sight distance for drivers looking to the east as they turn onto Randall Flat Road (as shown in Figure 2-25), but drivers approaching the intersection from the west also have limited sight distance because the intersection lies just to the east of a steep crest vertical curve. Reasonable mitigation opportunities at this intersection are most likely limited to increased warning signage leading up to the intersection.

Figure 2-26. Wallen Road/Teare Road



Figure 2-26 shows that westbound drivers on Wallen Road approaching the intersection with Teare Road cannot see Teare Road until they crest the vertical curve located just prior to the intersection. Also, there is limited sight distance for drivers on Teare Road looking to the east attempting to turn left onto Wallen Road due to the combination of the vertical curve and horizontal curve. Reasonable mitigation opportunities at this intersection are most likely limited to cutting back the bank on the southeast corner of the intersection and providing better warning signage leading up to the intersection.

Figure 2-27. Travis Road/Fiddler’s Ridge Loop/SH 6



Figure 2-27 displays the unconventional configuration of this intersection, with Travis Road and Fiddler’s Ridge Loop both approaching SH 6 from the north, and intersecting SH 6 at skewed angles. The sight distance for drivers approaching on either Travis Road or Fiddler’s Ridge Loop is very limited, making it so a driver on Travis Road cannot see a vehicle on Fiddler’s Ridge Loop (or vice versa) until both vehicles reach the junction with SH 6. A low cost mitigation opportunity would be to provide stop control on Travis Road with a stop bar placed before the intersection with Fiddler’s Ridge Loop. A high cost mitigation opportunity would be to realign Fiddler’s Ridge Loop to intersect Travis Road at a point at least 150 feet upstream of SH 6.

OTHER IDENTIFIED EXISTING TRANSPORTATION ISSUES

As an extension of the existing conditions analysis, other aspects of the transportation system with existing deficiencies or concerns were identified. Descriptions of the additional deficiencies and concerns are provided in the following sections.

VEGETATION OVERGROWTH

Numerous comments were received from the public stating that overgrown vegetation has caused a hazard in different locations throughout the NLCHD. An example of one of these locations is at the Ilders Rest Road/Mountain View Road intersection where high vegetation growth and cut banks limit visibility for traffic on Mountain View. NLCHD commissioners expressed frustration that little to no guidance is provided about the location of the right-of-way on particular roads, or how much vegetation should be removed.

Overgrown vegetation can pose both a safety problem due to a loss of sight distance, and an operational problem due to a decrease in capacity caused by a narrower feel to the roadway. Often times a significant improvement in sight distance can be attained at certain locations simply by removing overgrown vegetation, and efforts should be made to identify these locations. Current maintenance standards are to mow once or twice a year depending on growth, and to cut back brush as needed. Tree removal has been a more controversial issue. Improved written standards for vegetation will improve the ability of the NLCHD to maintain their right of way without over-cutting of trees.

LACK OF SHOULDERS

Most of the roads in the NLCHD lack adequate shoulder width. Narrow shoulders do not provide adequate space to pull off the roadway in some areas. Narrow shoulders on busy roads also create hazards for pedestrian and bicycle traffic.

One location where this problem is evident is on Mountain View Road north of the Moscow city limits. This is a multiple use roadway that does not have enough shoulder width for safe travel of multiple users. Other heavily traveled roadways with shoulders that are too narrow are:

- Idlers Rest Road
- Four Mile Road
- Robinson Park Road

LOOSE AGGREGATE AND CORRUGATIONS

Unpaved roads with corrugations and excessive loose aggregate create unique driving hazards, and may be symptomatic of other underlying issues. Loose aggregate and corrugations could be caused by loss of smaller sand and clay particles in the gravel, steepness of grade on a heavily traveled road, or could indicate a roadway in need of maintenance. If this is a consistent problem for a particular roadway, a base stabilizer may be a viable alternative to constant regrading.

One road that has in the past experienced problems with loose aggregate is Paradise Ridge Road. This year a magnesium chloride application is being tested on the Paradise Ridge Road. It appears that this base stabilizer is having the positive effect of retaining aggregate on the driving surface.

USE OF SIGNAGE

The use of regulatory, warning, and guide signage within the NLCHD was identified as a possible need. Based on field observations by the project team and comments received from the public, it was found that most major intersections have some minimal level of signage, but at many of the minor intersections proper signage is not consistently installed. Some of the most common types of signage that were lacking in some areas included additional speed signage on roadways with alignments that could be dangerous if driven too fast, and curves after long, straight sections of roadways. Some of the specific signage deficiencies are listed below:

- Robinson Park Road: Speed limit signs may need to be more frequent to have a greater impact on vehicle speeds.
- Thorn Creek Road: Speed limit signs may need to be more frequent to have a greater impact on vehicle speeds.
- Four Mile Road: Speed limit signs may need to be more frequent to have a greater impact on vehicle speeds.
- Lenville Road: The sharp corner south of Palouse River Drive has no warning signage.
- Little Bear Ridge Road: The sharp corner north of Hill Road has no warning signage.
- Mix Road: The sharp corner just north of the Moscow city limits has no warning signage.
- Mill Road: The sharp corner just north of Lenville Road has no warning signage.
- Travis Road: The intersection with Fiddlers Ridge Loop Road and Highway 6 has unclear signage.

A large number of public comments were received addressing the lack of speed limit signs on many roadways in the NLCHD, allowing many vehicles to travel well in excess of safe speeds. Although input from the NLCHD indicates they would like to install speed limit signs to improve roadway safety and help reduce aggregate loss, an engineering study is required for installation of enforceable speed zones. Without such a study, tickets issued for excessive speed do not hold up in a court of law.

In addition, other advance warning signs (i.e., curve warning signs, steep grade signs, and intersection warning signs) were not used in many locations where providing this signage would give useful information to the driver. Most regulatory and warning signs do not meet the current standards for reflectivity. The NLCHD is currently developing a plan for replacement of the signs. This is especially critical since most roadways and intersections are not illuminated. Also, a number of signs have been installed on NLCHD roadways by private property owners in an attempt to resolve an issue near their property. A few of these signs pose safety hazards because they are blocking sight lines or do not have proper breakaway posts.

An inventory of existing signs is illustrated in Figure 2-28.

UTILITY ENCROACHMENT

Many roads in the area lack adequate utility clearance. Utilities such as power and phone are in the NLCHD right-of-ways, and in some instances even have poles or guy wires that are in the road. These encroachments cause obvious driving obstacle hazards. In addition to the driving hazards, these obstacles cause traffic to be concentrated into a two track pattern that increases maintenance costs to the highway district.

One road with utility encroachment concerns based on windshield observations is Moscow Mountain Road. In places the guy wires and or the pole are at the edge of the road, and in one instance the guy wire appears to be in the roadway.

DUST

Many of the high-volume gravel roads generate significant dust during dry weather. Excessive dust on gravel roads not only creates safety concerns, but also indicates a significant loss of roadway material. Implementing maintenance procedures intended to alleviate dust concerns addresses not only increasing the roadway patrons' safety, but also reduces some of the costs associated with maintaining gravel roads. That is, if dust is a measure of significant roadway material loss, then reducing dust also reduces costs associated with replacing material on gravel roads. Implementation of dust control procedures will be discussed in more detail in Section 4 of this plan, Improvements and Projects Analysis.

EXISTING ROADWAY MAINTENANCE

INVENTORY

A complete inventory of NLCHD's roadway system was recorded as part of this plan. The entire roadway system in the NLCHD jurisdiction was driven, and existing roadway condition data was observed for each road segment. This information was compiled in a database, correlated spatially with the Global Positioning Satellite (GPS) information collected during the inspections, and into a Geographical Information System (GIS) database. All of this data can be accessed and analyzed via the TAMS 2.1 Software provided by the Idaho Technology Transfer Center (T2 Center).

The inventory and GIS database developed in conjunction with this plan provides a baseline of the conditions of the NLCHD roadway system. This baseline is the start of implementing improved decision-making tools for the allocation of funds and labor.

During the windshield evaluations, most of the 590 miles of NLCHD-maintained roadway were inspected. Approximately 129 miles were asphalt, leaving 461 miles of roadway unpaved. Each roadway was divided into segments easily recognized by the conditions in the field. That is, a roadway segment was

typically defined from intersection to intersection along any given roadway, or where significant features, such as pavement-to-gravel transitions, or bridges, or roadway ends, were encountered.

Each roadway segment was evaluated in terms of segment width, surface type, drainage type, and the current roadway conditions. The GPS instrument determined segment lengths. The existing road conditions were evaluated based on the severity and extent of various distresses. The severity of the distress is a measure of its magnitude, while the extent quantifies how frequently it occurs in a given segment. The Tams 2.1 software uses the observed extent and severity of each distress to estimate a Remaining Service Life (RSL) value (in years) for each road segment. RSL identifies the amount of time a roadway segment has left before major reconstruction of that segment is necessary to keep the segment in use. Normal maintenance procedures, such as yearly crack sealing on paved surfaces, and reshaping on gravel surfaces are critical to realizing, or even extending the RSL for any given roadway segment. In fact, on gravel roads, lack of such regular maintenance procedures would render RSL values useless, since most of these roads would be almost unusable to most motorists even after only one year of no maintenance.

The asphalt roads were evaluated based on alligator (block) cracking, longitudinal cracking, transverse cracking, edge cracking, patching/potholes, roughness, rutting, and drainage. The average Remaining Service Life (RSL) of the asphalt roads was approximately 12 years

Unpaved roads were evaluated based on rutting, loose aggregate, corrugations, potholes, cross section, drainage, and dust. The majority of the unpaved roadways are gravel 3-track roadway with natural shoulders. Of all the NLCHD unpaved road segments, corrugation and loose aggregate were the largest determining factors for low RSL. The average RSL for the unpaved road segments was approximately eight years.

ROADWAY SURFACE CONDITIONS

Paved Roadways

The district appears to have successful pavement maintenance practices in place. Of all the NLCHD asphalt segments, edge cracking was found to be the governing stress in 28% of the system. In general, the asphalt roads are structurally sound, with good drainage. The asphalt segments have an average width of approximately 23 feet, and natural drainage is typical. In general, the existing asphalt roads have a good base and cross section. The ditches and culverts are in good working condition, resulting in adequate drainage. Existing annual crack sealing and patching as necessary, and an approximately 5-year chip seal rotation are successful maintenance practices aimed at extending the asphalt's typical remaining service life already implemented by the district. A road condition survey is found in the Technical Appendix.

Unpaved Roadways

Unpaved road conditions are dynamic, and perhaps most readily influenced by seasonal factors. For example, a given road segment could be governed by rutting in the spring due to snow runoff, and that same road segment could have excessive corrugations in the fall from heavy agricultural traffic. However, particular unpaved segments will tend to have recurring maintenance issues. These problems will not likely be evident from a single windshield evaluation, but will become obvious throughout years of maintenance records. In general, the more heavily traveled roads will likely have the most frequent maintenance issues, especially when referring to the unpaved roads. Therefore, the ADT values are especially useful in allocating resources on unpaved roadway segments. Dust is also an inherent problem of unpaved roads, particularly those with a high ADT. Dust not only provides a safety issue, but

also indicates aggregate loss. This dust and loss of aggregate are often linked with extensive corrugations and other road distresses.

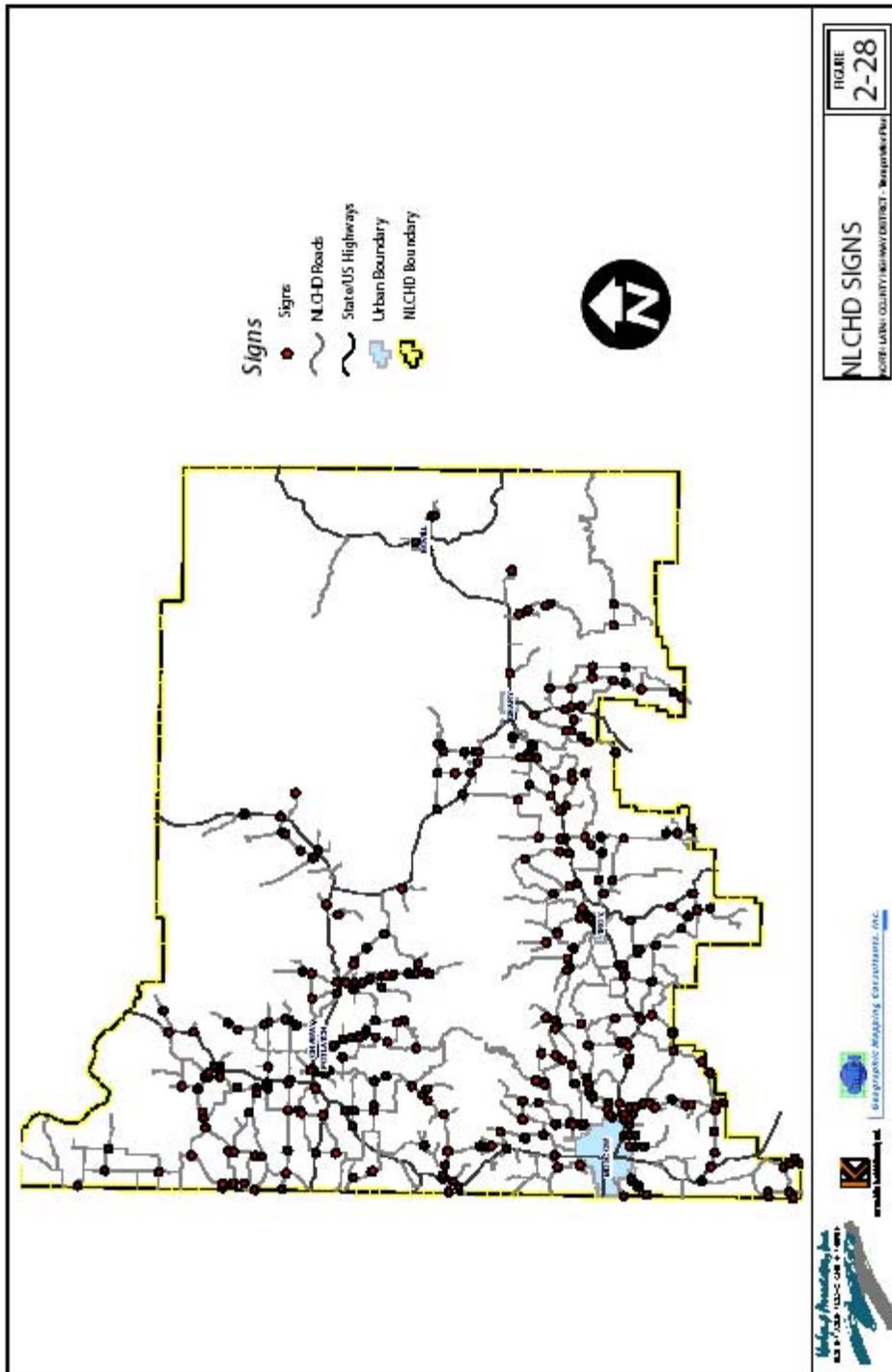
Recognizing the limitations of evaluating the existing conditions given the dynamic nature of unpaved roads, but also recognizing the need for establishing a baseline condition of the roadway system, the following represents a summary of our findings.

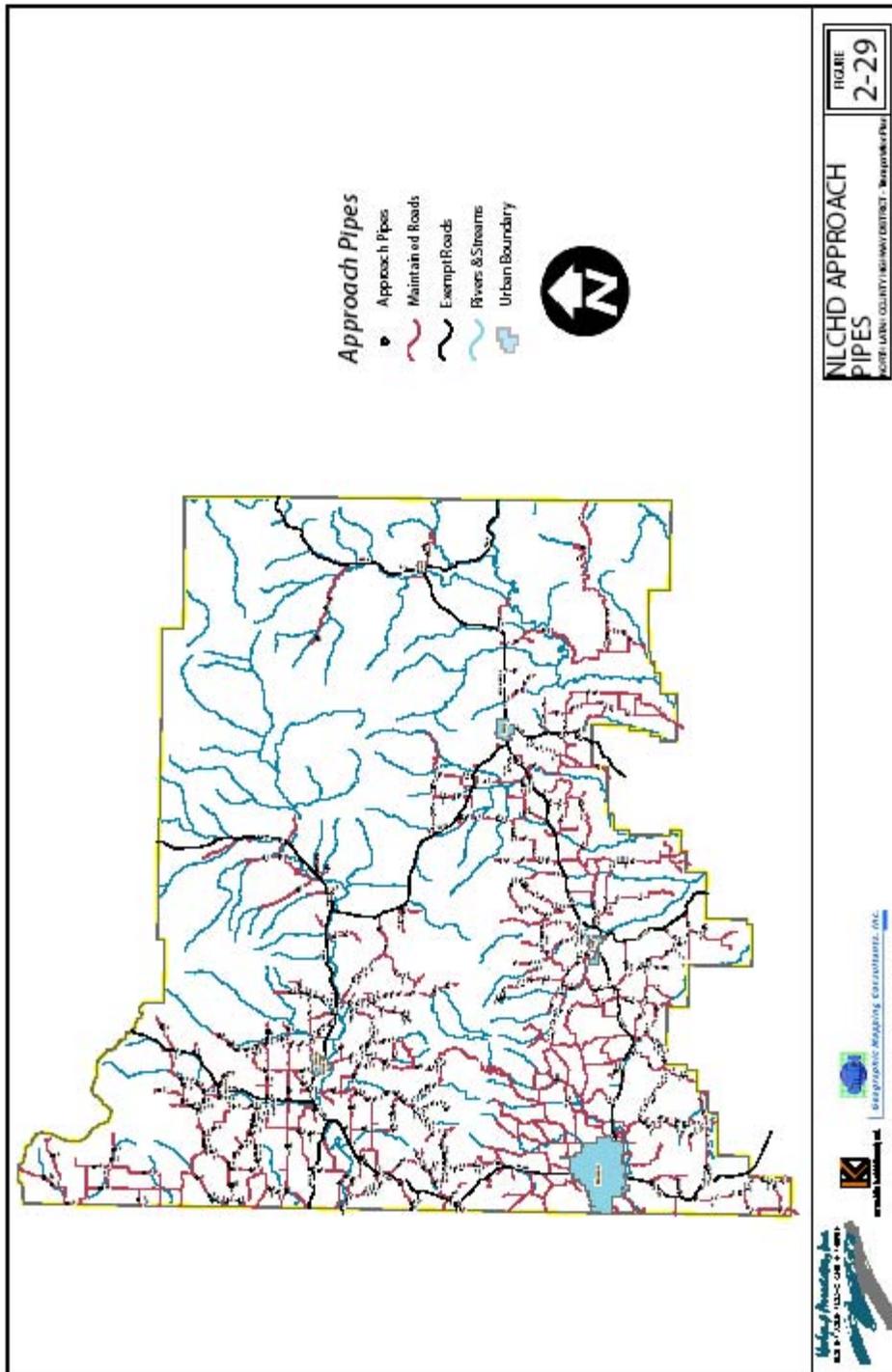
At the time of the survey, segments of some of the more highly traveled unpaved roads in the district, receiving 100 or more ADT were prone to corrugations and loose aggregate. Of course, other factors influence these conditions, but higher traffic is believed to be the greatest contributing factor. In general, the unpaved segments of roadway have an average width of approximately 18 feet, with a natural or gravel shoulder. Corrugations were the governing distress in 33% of the segments at the time of the survey. In general, the unpaved road sections are well maintained, with an increased use of aggregate stabilizers on more heavily traveled roads. A road condition survey is found in the Technical Appendix.

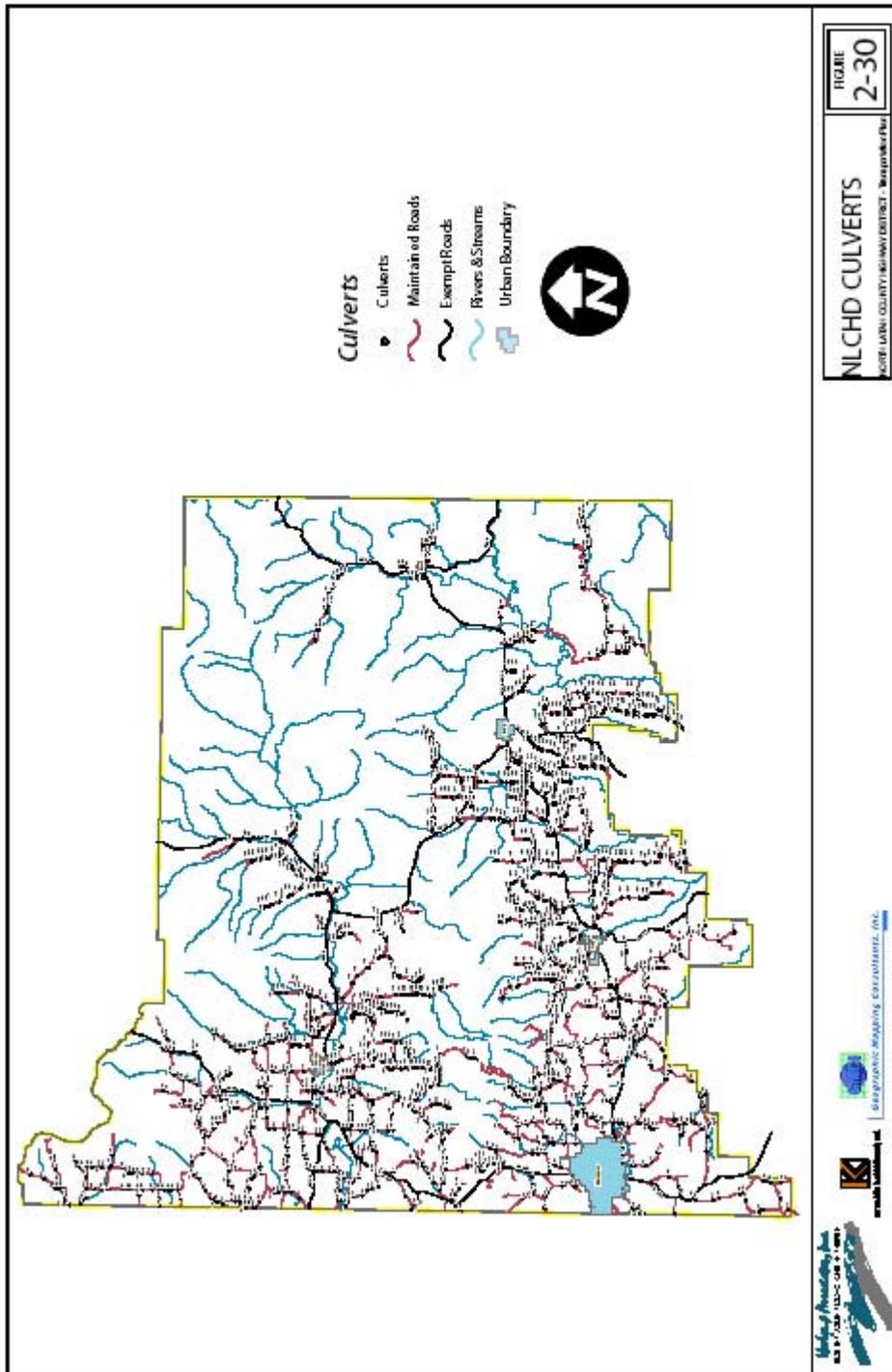
APPROACH PIPES AND CULVERTS

A location inventory of each approach pipe and culvert in the district's jurisdiction was conducted as part of the development of this document. The highway district has numerous approach pipes and culverts throughout their jurisdiction that are in a variety of conditions. The majority of these pipes are in satisfactory or excellent condition. However, some of the culverts are too short for the roadway as installed. This deficiency causes a safety hazard as the roadway narrows unexpectedly. An illustration of these existing approach pipes and culverts is shown in Figure 2-30. Culverts with a span length twenty-foot gap are considered bridges in this document in conjunction with ITD's definition of bridges.

In general, the highway district employs good installation and maintenance practices of approach pipes and culverts. A current inventory list of culverts and approach pipes has been supplied to the NLCHD as part of this plan. The inventories are found in the Technical Appendix.







Bridges

The consulting team completed a review of ITD bridge inspection reports for bridges within the district's boundaries from 2004 - 2005. This inventory and review identified 42 bridges in NLCHD's jurisdiction, excluding bridges located within city boundaries and on state highways. These bridge locations are shown in figure 2-31. a summary of the ITD bridge report is found in the Technical Appendix.

Included in the available bridge reports are Bridge Sufficiency Ratings. Bridge Sufficiency Ratings, ranging from 0 to 100, result from data generated by the National Bridge Inspection Standards (NBIS) program authorized by the 1968 Federal Aid Highway Act. According to the Idaho State Highway Plan, *"sufficiency ratings measure a bridge's structural adequacy, compliance with current design standards, importance for public use, and eligibility for federal bridge replacement funds. A sufficiency rating below 50 implies the bridge is in poor condition and needs to be replaced. Sufficiency ratings between 50 and 80 suggest the bridge is in fair condition, and that rehabilitation, if cost-effective, will bring the bridge up to current standards. Bridges with sufficiency ratings above 80 are considered to be in good or adequate condition in all areas and are not eligible for federal funding."*

The sufficiency ratings are calculated by ITD, using FHWA software, after the bridge inspection reports are reviewed and approved. This review identified no bridges with sufficiency ratings below 50. Fourteen bridges were identified with sufficiency ratings between 50 and 80. The remaining bridges have sufficiency ratings above 80. Of the fourteen bridges with sufficiency ratings between 50 and 80, three of these are structurally deficient. The three structurally deficient bridges are:

- Key No. 20320 Steel Bridge on Robinson Park Road (rating = 52.2)
- Key No. 29650 Steel Bridge on Hatter Creek Road (rating = 57.2)
- Key No. 29685 Concrete Bridge on Viola Main Street (rating = 58.3)

The other bridges identified with sufficiency ratings between 50 and 80 are:

- Key No. 29445 Wood Bridge on Mica Mountain Road (rating = 73.2)
- Key No. 29450 Steel Bridge on Woodfell Lane (rating = 68.0)
- Key No. 29460 Steel Bridge on Old Highway 8 (rating = 65.2)
- Key No. 29545 Wood Bridge on Forks Road (rating = 76.8)
- Key No. 29565 Steel Bridge on Park Road (rating = 71.0)
- Key No. 29627 Steel Bridge on Mountain View Road (rating = 63.5)
- Key No. 29680 Concrete Bridge on Lenville Road (rating = 61.4)
- Key No. 29695 Steel Bridge on Rock Creek Road (rating = 69.7)
- Key No. 29705 Concrete Bridge on Mountain View Road (rating = 68.2)
- Key No. 29725 Steel Bridge on Ailor Cut-Off (rating = 67.2)

The bridge sufficiency ratings and the associated summary reports provide NLCHD officials with a quick overall assessment of their bridge needs. NLCHD officials are urged to review the bridge inventory and sufficiency ratings for completeness and accuracy, and also to refine and upgrade their bridge condition ratings via an aggressive maintenance, rehabilitation, and replacement program.

COMPREHENSIVE EVALUATION OF STUDY ROADWAYS

A comprehensive evaluation of the study roadways was completed based on evaluation of traffic operations, crash history, comments received from the public and the NLCHD commissioners, local law enforcement input, and observations recorded by the project team during an inventory of the existing roadway facilities. This evaluation assessed each roadway in terms of four categories: safety, capacity/operations, maintenance, and pedestrian/bicycle/other. Three specific subcategories within each of the four categories provided were developed to provide the basis for evaluation of each study roadway.

Within the safety category, the crash history, geometry, and speed and signage along each roadway were specifically evaluated. Within the capacity/operations category, the roadway width, surface type, and traffic volume were specifically evaluated. Within the maintenance category, the surface conditions, drainage, and winter maintenance were specifically evaluated. Within the pedestrian/bicycle/other category, pedestrian and vehicle conflicts were identified, the need for pedestrian/bicycle accommodations was evaluated, and the overall adequacy of general signage was evaluated.

Table 2-5 presents the results of the comprehensive evaluation of the study roadways. For each category, an "X" is placed in the box in which some level of deficiency was observed or identified by a stakeholder. In the evaluation of existing conditions, no attempt was made to prioritize roadways in terms of the deficiencies that were observed. Reporting these deficiencies is a first step in identifying roadways that could be targeted for improvements. These deficiencies will be further examined to isolate specific roadway improvements that are necessary. The roadways with the highest number of deficiencies include (number in parentheses indicates the number of deficiencies identified):

- Robinson Park Road (7)
- Lenville Road (6)
- Little Bear Ridge Road (5)

**Table 2-5
 Comprehensive Evaluation of Study Roadways**

ROADWAY	DEFICIENCY											
	Safety			Capacity/ Operations			Maintenance			Ped/Bike/Other		
	Crash History	Geometry	Speed/Signage	High Traffic Volume for Roadway Type	Surface Type	Roadway Width	Surface Condition	Drainage	Winter Maintenance	Ped/Veh Conflicts	Path Needed	Signage
Major Collectors												
Frink Road/Crumarine Loop					X							X
Moscow Mountain Road	X	X				X						
Robinson Park Road	X		X			X			X	X	X	
Thorn Creek Road			X									
Minor Collectors												
Cora/Garfield/Deep Creek Loop												
Driscoll Ridge Road		X	X									
Flannigan Creek Road					X		X			X		
Four Mile Road	X		X			X						
Genesee-Troy Road		X	X		X							
Hatter Creek Road						X				X		
Lamb Road		X	X									
Lenville Road	X	X	X						X	X	X	
Little Bear Ridge Road		X	X			X		X	X			
Mix Road	X	X	X									
Park Road												
Rock Creek Road										X		
Spring Valley Road					X	X						
Local Roads												
Big Meadow Road		X		X		X				X		
Blaine Road		X										

ROADWAY	DEFICIENCY											
	Safety			Capacity/Operations			Maintenance			Ped/Bike/Other		
	Crash History	Geometry	Speed/Signage	High Traffic Volume for Roadway Type	Surface Type	Roadway Width	Surface Condition	Drainage	Winter Maintenance	Ped/Veh Conflicts	Path Needed	Signage
Eid Road												
Foothill Road												
Idlers Rest Road										X		
Lewis Road												
Mill Road	X	X	x									
Mountain View Road				X						X	x	
O'Donnell Road												
Old Pullman Road				X		X				X		
Oneway Road												
Palouse River Drive				X								
Paradise Ridge Road	X						X					
Polk Street Extension										X		
Randall Flat Road	X	X								X		
Saddle Ridge Road		X										
Sand Road						x						
Texas Ridge Road												
Wallen Road	X	X	X									

EXISTING CONDITIONS SUMMARY

Through an inventory of existing conditions, several key findings were identified. Those findings include:

LAND USE AND PLANNING

The transportation system within this region developed with the need for commerce between Moscow, Troy, Potlatch and Deary. There was a need to move lumber and agricultural products to railroad stations for transport to larger cities and ports. Today, lumber and agricultural goods are moved primarily by truck to the larger city centers. Many people residing in NLCHD commute to Moscow, Pullman, Lewiston, and Clarkston for employment. The Latah County Comprehensive Plan anticipates that densities will increase in the areas immediately surrounding Moscow, and in a broad strip along State Highway 6 between the junction of US 95 and Harvard. Areas for increased densities and development also surround Troy, Deary, Bovill, Helmer, Joel, and Viola. Of the small towns in Latah County, Potlatch

has the greatest potential for growth. Large-lot subdivision development in the county around the Potlatch area could impact county roads. Residential growth in the county around these smaller towns is more likely to have an impact on the county roads than expansion of the Cities themselves. This anticipated growth pattern validates the concept of improving transportation between cities in the district and larger cities outside the District.

PEDESTRIAN/BICYCLE FACILITIES

The Latah Trail is nearly complete between Pullman and Troy. A small segment at Wallen Road requires a crossing and paving. Very little or no parking for vehicles is available at main access points to the trail. Pedestrian and bicycle use could become more intense on county roads between residential areas and the Latah Trail as people access the trail. Moscow is at the forefront of bicycle circulation in the state of Idaho. College students make up more than 50 % of the population of Moscow, which increases the potential for bicycle commuters in and around the city. The highway district should expect increased conflicts between bicycles and pedestrians on the county roadways surrounding the city of Moscow. The highway district should consider requiring wider right-of-way widths for new developments along collector roads within one mile of the city limits to reduce future conflicts. Troy's comprehensive plan encourages alternate means of transportation. The Latah Trail has been extended to Troy, and will be used heavily. Pedestrian and bicycle traffic could become more intense between the Latah Trail and the new school at the northeast quadrant of Troy. Potlatch has developed plans for bicycle and pedestrian transportation modes. If Potlatch plans are implemented, then pedestrians and bicycles will most likely use the improved trail system envisioned in earlier planning documents, thereby reducing potential future conflicts on county roads.

PUBLIC TRANSPORTATION

Finding adequate funding for viable public transportation in rural areas is difficult. Fixed-route service in the city limits of Moscow that started in 2004 has been successful so far, with increasing ridership. The fixed-route service between Lewiston and Moscow has just begun, and it is too early to predict its success. However, the continuation of these services is dependent on matching fund contributions made by several organizations. Funding is tenuous when budgets become more constrained. If any one organization drops its contribution, the whole program is in jeopardy. There is a need for greater on-demand service. An increase in this type of service will most likely only come if Latah County takes the lead in identifying matching sources of funding for Federal aid. Encouraging mass-transit as a transportation option is identified in the Latah County, Troy, and Deary Comprehensive Plans.

AIR /RAIL TRANSPORTATION

Air transportation is not a significant element of transportation in Latah County. at least five private landing strips are found within the NLCHD boundaries, and are used primarily for agricultural aerial spray services. Commercial aviation facilities are found outside of Latah County.

The Latah County Comprehensive Plan states a policy to "Encourage the preservation and growth of rail service in Latah County." Unfortunately, the opposite trend is occurring in the county. Private industry is turning to truck transportation as more cost effective than utilizing rail. There has been a reduction in active lines in the County in recent years, with railroad right-of-ways being sold to private parties. There has been some discussion among the members of the Latah Trail Foundation about securing the abandoned lines for multi-use paths, but funding to purchase the right-of-ways is not immediately available.

TRAFFIC OPERATIONS AND SAFETY

These roadways or sections of roadway do not have sufficient width to meet the proposed NLCHD standard based on their existing classification, traffic volume, and surface type:

- Frink Road/Crumarine Loop
- Moscow Mountain Road (West of Frink Road)
- Robinson Park Road
- Four Mile Road
- Hatter Creek Road (N of Morris Road)
- Little Bear Ridge Road
- Spring Valley Road
- Old Pullman Road
- Sand Road

These roadways or sections of roadway have traffic volumes that exceed the maximum recommended volume established for the existing roadway facility:

- Mountain View Road
- Old Pullman Road
- Palouse River Drive

These roadways all had a high crash rate, a high number of crashes, or both:

- Four Mile Road
- Lenville Road
- Mill Road
- Moscow Mountain Road
- Paradise Ridge Road
- Randall Flat Road
- Robinson Park Road
- Wallen Road

The most common contributing circumstance to crashes on the above mentioned roadways was vehicles traveling at speeds too fast for conditions.

These roadways or intersections were identified as having sight distance deficiencies:

- Mill Road/Lenville Road
 - Flannigan Creek Road/Davis Road
 - Driscoll Ridge Road/Lamb Road
 - Foothill Road – North of Polk Extension
 - Randall Flat Road/Hendrix Road
-

- Wallen Road/Teare Road
- Travis Road/Fiddler's Ridge Loop/SH 6
- Robinson Park Road/Wallen Road
- Genesee-Troy Road/Cornwall Road
- Little Bear Ridge Road/Hill Road
- Mix Road
- Big Meadow Road/McKeehan Road
- Frink Road/Moscow Mountain Road
- Rock Creek Road - Just south of the Potlatch city limits

These roadways were identified as having the most excessive vegetation overgrowth in the NLCHD:

- Saddle Ridge Road
- Idlers Rest Road
- Foothill Road
- Randall Flat Road
- Pine Ridge Road

Numerous comments were received from the public stating that overgrown vegetation has caused a hazard in different locations throughout the NLCHD. However, in contrast to these comments, a number of complaints have been received about excess vegetation removal leading to aesthetically unappealing roadway corridors.

It was observed that many roads in the NLCHD lack adequate shoulder width and utility clearance. Four Mile Road, Idlers Rest Road, and Moscow Mountain Road are specific roadways with these deficiencies.

Based on field observations by the project team and comments received from the public, it was found that most major intersections have the necessary signage, but at many of the minor intersections proper signage is not consistently installed. In addition, other advance warning signs, such as warning of a stop ahead around a curve, were not present at some intersections with sight distance problems.

These roadways were identified as having the most excessive dust problems in the NLCHD:

- Polk Street Extension
- Flannigan Creek Road
- Saddle Ridge Road
- Howell Road
- Ailor Road

EXISTING ROADWAY MAINTENANCE

The NLCHD is making a concerted effort to properly maintain and improve their roads. In general all the roads have good cross-sections, including culverts and ditches working properly. Regular crack sealing, patching, and chip sealing are good maintenance practices already implemented by the district on their asphalt roads. On the more highly traveled gravel roads however, additional maintenance measures

may be beneficial. Dust suppressants and base stabilizers may reduce the amount of aggregate loss and increase the road life between necessary maintenance procedures. In turn, this may reduce the amount of personnel-hours required for the maintenance of these roads. Such additional maintenance measures are discussed in more detail in Section 4 of this plan, "Improvements and Projects Analysis".

Approach Pipes and Culverts

The highway district has numerous approach pipes and culverts throughout their jurisdiction which are in a variety of conditions. The majority of these pipes are in satisfactory or excellent condition. The most common deficiency observed during the inventory process is short pipe length causing narrow points along the roadway. Highway district personnel are actively trying to repair or replace any existing pipes in either poor condition or with operation concerns. The district has good installation and maintenance procedures in place for these pipes.

Bridges

The inventory of existing bridge locations and a review of existing bridge inspection reports gives NLCHD officials a convenient starting point for formulating a long-range plan regarding bridge maintenance. The sufficiency ratings and the listing of structurally deficient and functionally obsolete bridges are objective data that can be used in establishing a priority-based bridge rehabilitation and reconstruction program.

Future Conditions

INTRODUCTION

This section presents estimates of long-term future travel conditions within the transportation plan study area. The suggested long-term transportation needs for the NLCHD were based on available employment and population forecasts, identified development activities, review of each cities' comprehensive plan, review of the proposed roadway network, results from the operational analysis of the existing roadway system, and extensive surveys and discussions with regional transportation personnel and local citizens.

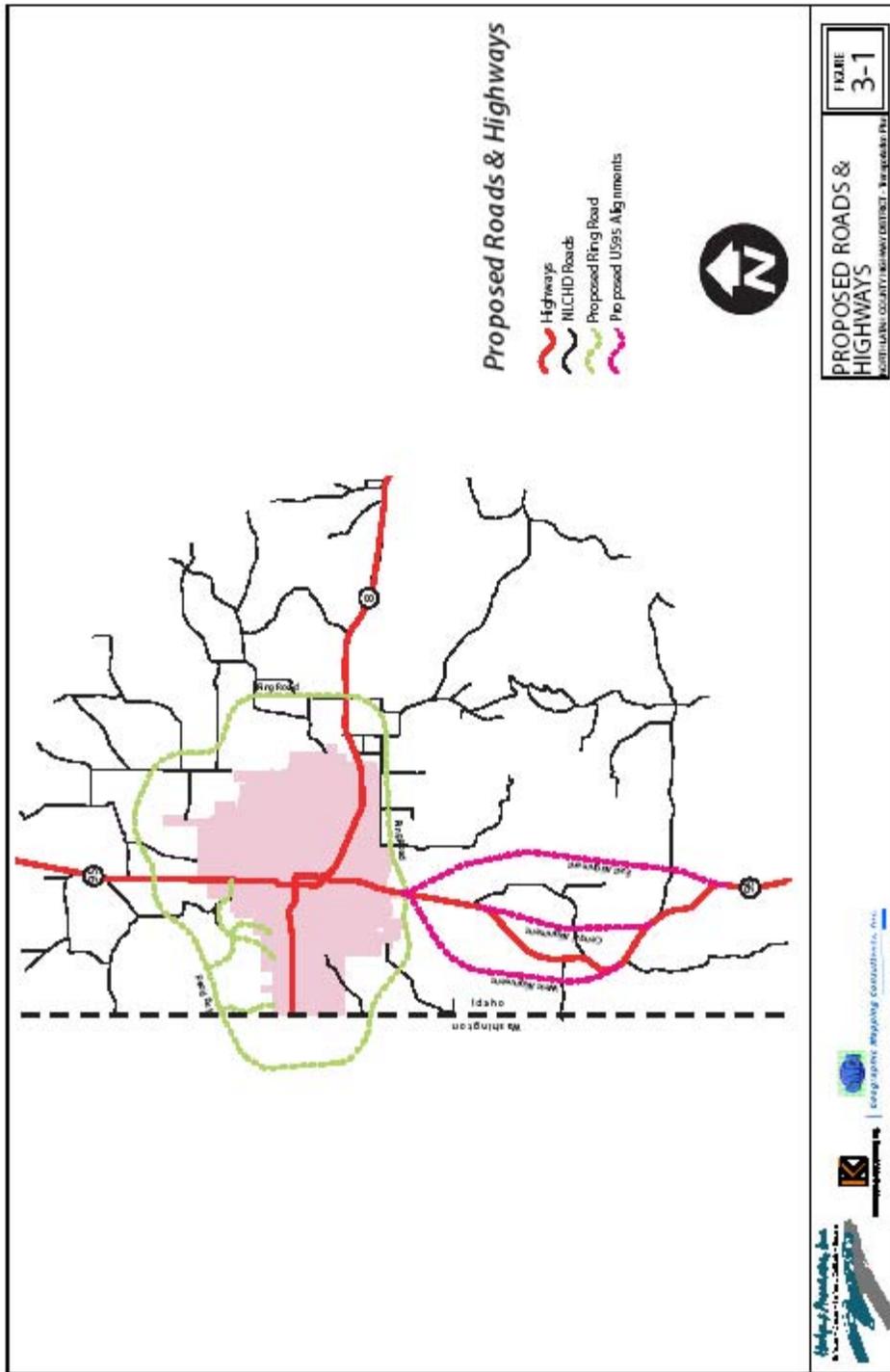
PLANNED TRANSPORTATION IMPROVEMENTS

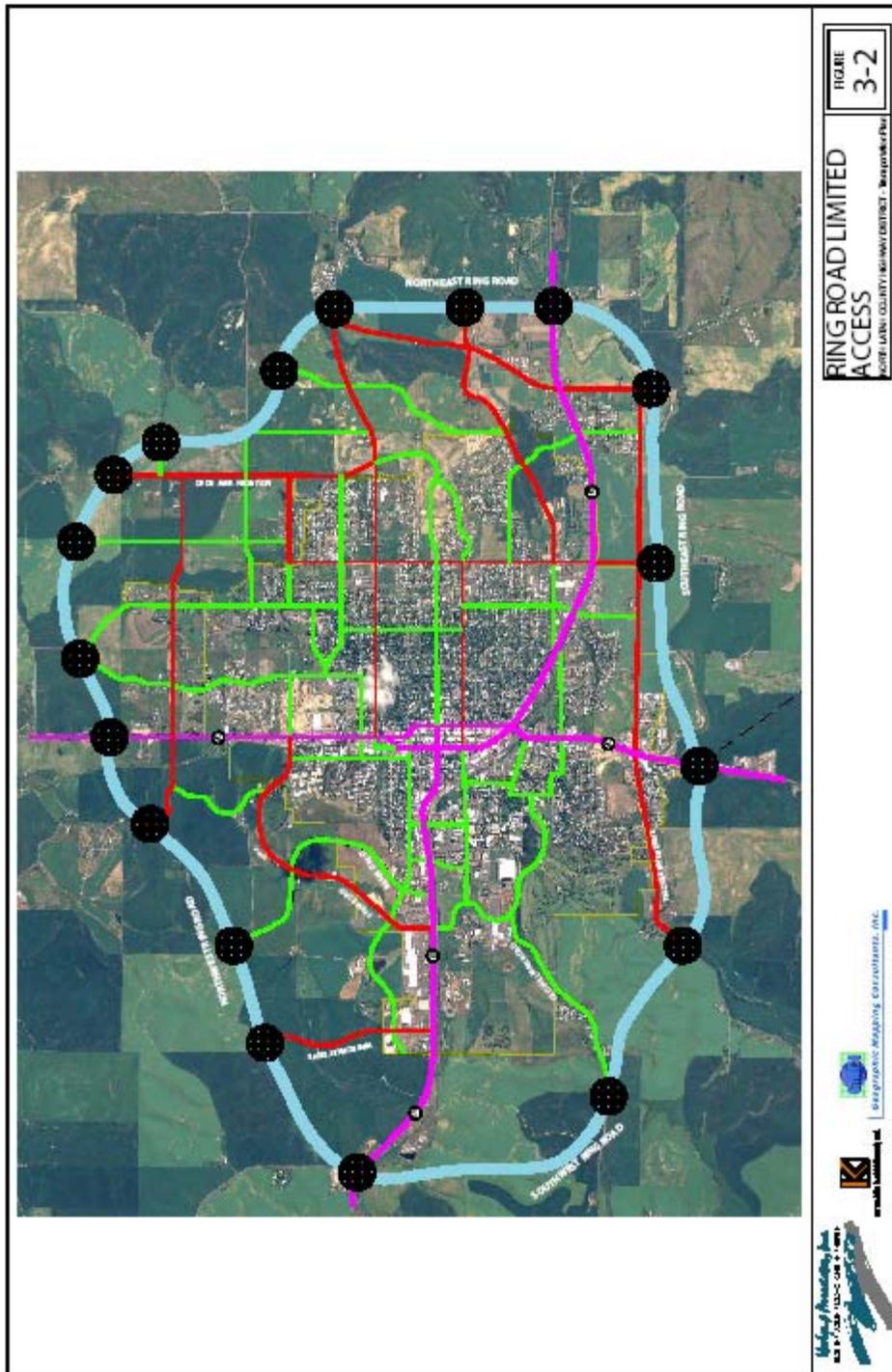
IDAHO TRANSPORTATION DEPARTMENT HIGHWAY 95 RE-ALIGNMENT

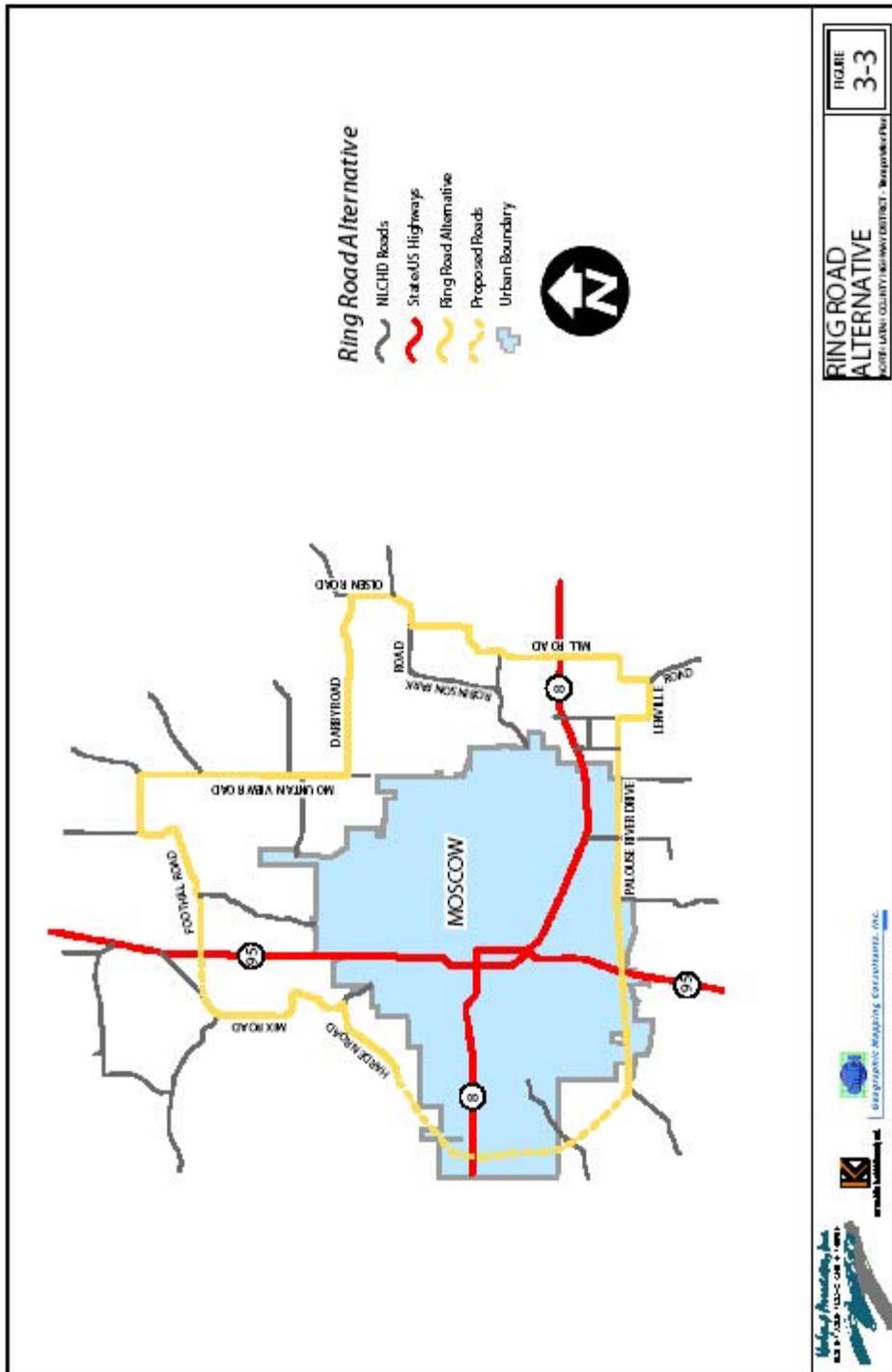
Plans to make improvements to Highway 95 between Thorn Creek Road and Moscow are currently underway. The two-lane highway will be expanded to a four-lane separated highway. At the time of this report, three conceptual alignments had been submitted to the Federal Highway Administration for consideration illustrated in Figure 3-1. The alignments are referred to as the west alignment, central alignment, and an east alignment. Once a final alignment is selected, approved, and constructed, the current Highway 95 roadway will be placed under the jurisdiction of the NLCHD. It will then be the responsibility of the highway district to administer and maintain this roadway.

MOSCOW RING ROAD

The Ring Road concept was mentioned in Section 2, "Moscow's Current Planning Efforts not Reflected in the Comprehensive Plan". There appears to be a great difference in public opinion about the ring road, as evidenced by comments made at a workshop conducted by the city of Moscow on July 25, 2006, and follow-up letters to the editor in the local Moscow-Pullman Daily News. Although the concept has not yet been formally adopted and may never be, we have included the most relevant information about the concept in this document for consideration. A report, "Transportation on the Edge of Town; Interdisciplinary Perspectives on Moscow's Future" was generated from a University of Idaho Sustainable Transportation seminar in July 2006. The seminar focused on the concept of sustainable transportation participants, and included representatives from the city of Moscow, University of Idaho and community members. The ring road concept was discussed in depth as a real life application for sustainable transportation issues. The two potential routes illustrated in this document were identified in the report. The diagram in figure 3-2 illustrates likely access points to the limited access system as determined by the Moscow Transportation Commission. It is likely that traffic will be concentrated on county roads where access points will be allowed. There has been some speculation that the area inside the ring road would be annexed into the city of Moscow prior to the construction of this road. Areas outside the ring road may remain in the county. Should the ring road concept be formally adopted, the highway district should review the functional classification of those roads with allowed access, and consider upgrading them to major collectors. The county road system may require frontage roads between the access points. An alternate plan utilizing existing roads has been presented by other members of the community, and is illustrated in figure 3-3. If the alternate plan is adopted, the highway district may consider adopting a new right-of-way width standard for those segments that will preserve the corridor from encroachment, and accommodate the future ring road.







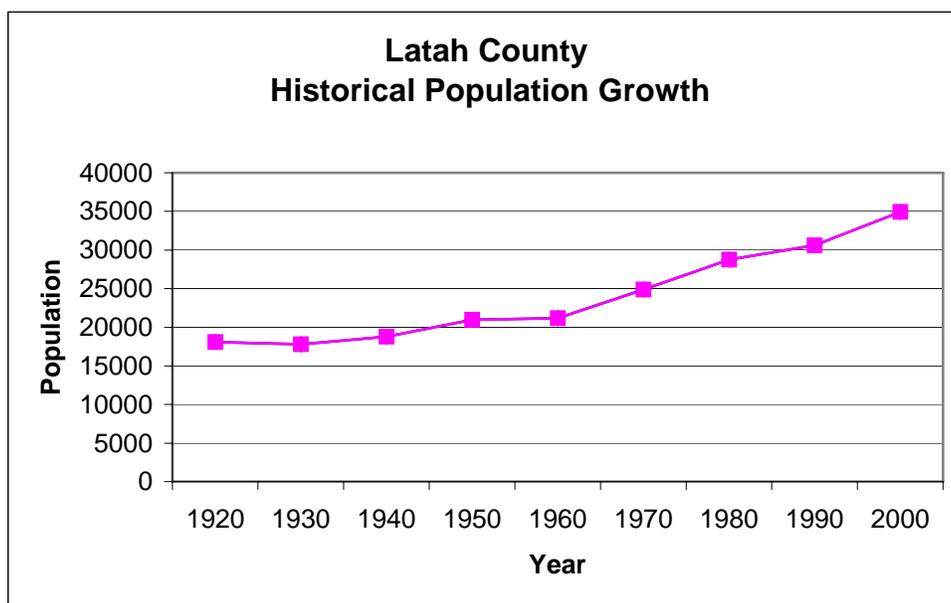
FUTURE GROWTH

In order to estimate future travel demand on the transportation system within the NLCHD, the growth in population and employment was estimated. The population and employment growth factors estimated are then used to develop 2030 traffic forecasts for the future conditions analyses.

HISTORICAL POPULATION GROWTH

Existing and historic population data for Latah County were obtained from the 2000 US Census and the Idaho Department of Commerce. Figure 3-4 shows the historical population for Latah County between the years 1920 and 2000.

Figure 3-4. Latah County Historical Population Growth



As shown in Figure 3-4, the population of Latah County has grown steadily since 1920, with the exception of a few time periods. Between 1960 and 2000, the population increased by approximately 65%, from approximately 21,000 to approximately 35,000. This results in an average annual growth rate of 1.27% per year over the 40-year period.

Even though the population in Latah County has experienced a 1.27% average annual growth rate over the past forty years, cities in the NLCHD, with the exception of Moscow, have not experienced the same level of consistent growth. Figure 3-5 shows the historical growth in Potlatch, Troy, Deary, and Bovill, demonstrating that the smaller cities within Latah County have experienced minimal growth or have even declined slightly in population. In Figure 3-6, one can observe that growth in the city of Moscow has been fairly consistent since 1970, with an average annual growth of 1.31% per year over the 33-year period. Finally, Figure 3-7 shows the historical growth in unincorporated Latah County, with the average annual growth rate equating to 0.52% during the period from 1980 to 2000.

Figure 3-5: Historical NLCHD City Populations (Moscow Excluded)

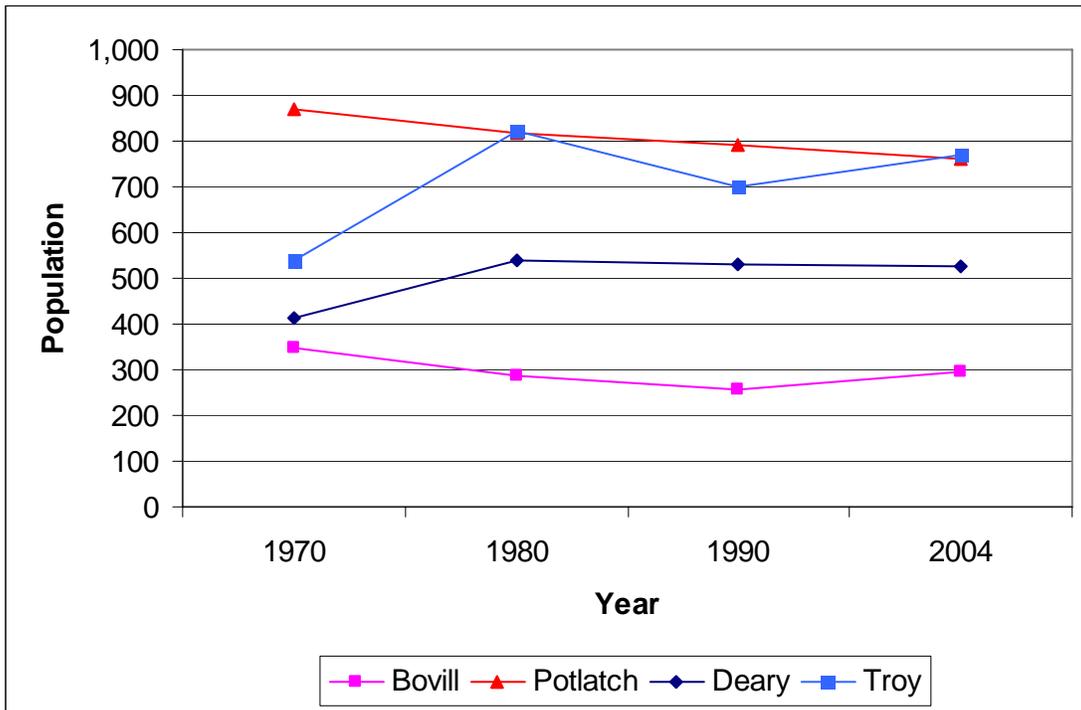


Figure 3-6: City of Moscow Historical Populations

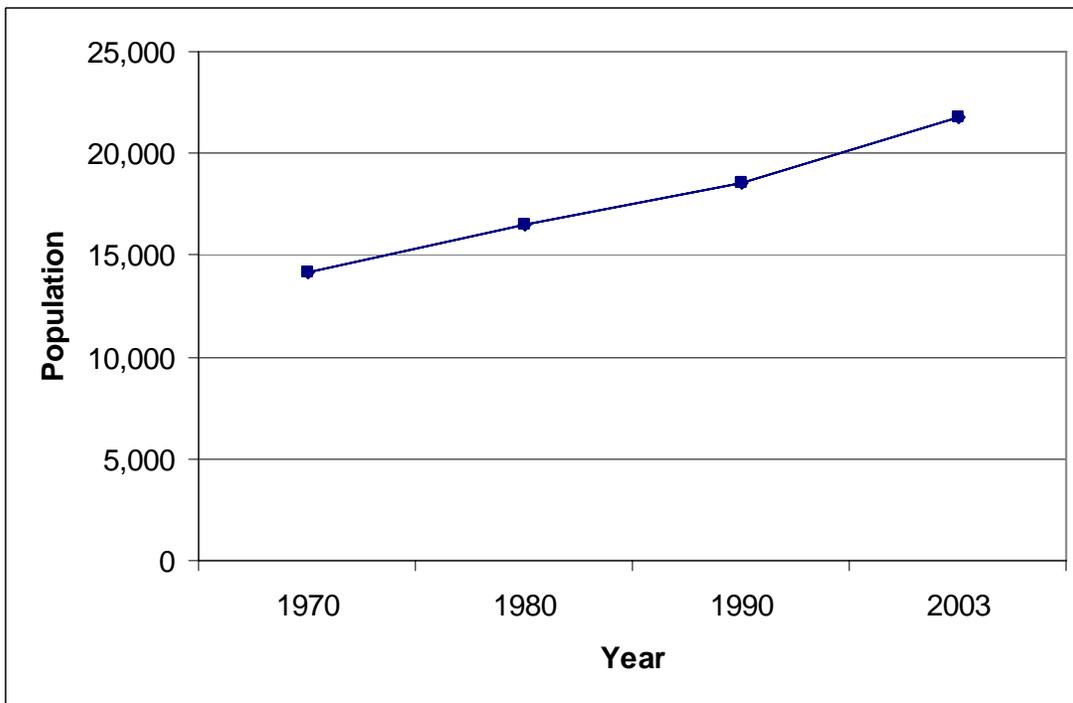


Figure 3-7: Unincorporated Latah County Historical Populations

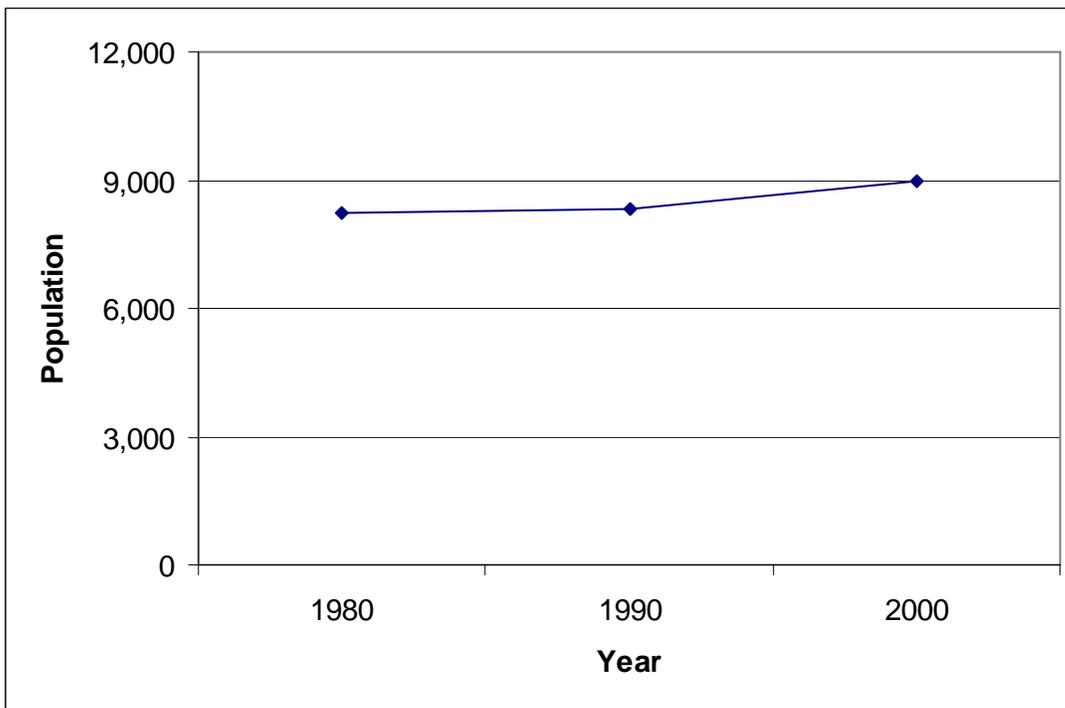


Table 3-1 summarizes average annual growth rates, for the NLCHD in ten-year increments based on existing and historical Census data.

**Table 3-1
 Annual Growth Rates**

Year	Moscow	Bovill	Potlatch	Deary	Troy	Unincorporated Latah County	Latah County
1970 – 1980	2.38%	-1.90%	-0.61%	2.75%	4.25%	1.19%	1.41%
1980 – 1990	1.56%	-1.21%	-0.36%	-0.19%	-1.58%	0.07%	0.63%
1990 – 2004	1.24% ¹	1.02%	-0.28%	-0.01%	0.68%	0.75% ²	1.17% ³
Avg. Annual Growth (1970 - 2004)	1.31% ⁴	-0.50%	-0.40%	0.74%	1.04%	0.67% ⁵	1.08% ⁶

¹Growth rate is calculated from 1990 – 2003.

²Growth rate is calculated from 1990 – 2000.

³Growth rate is calculated from 1990 – 2002.

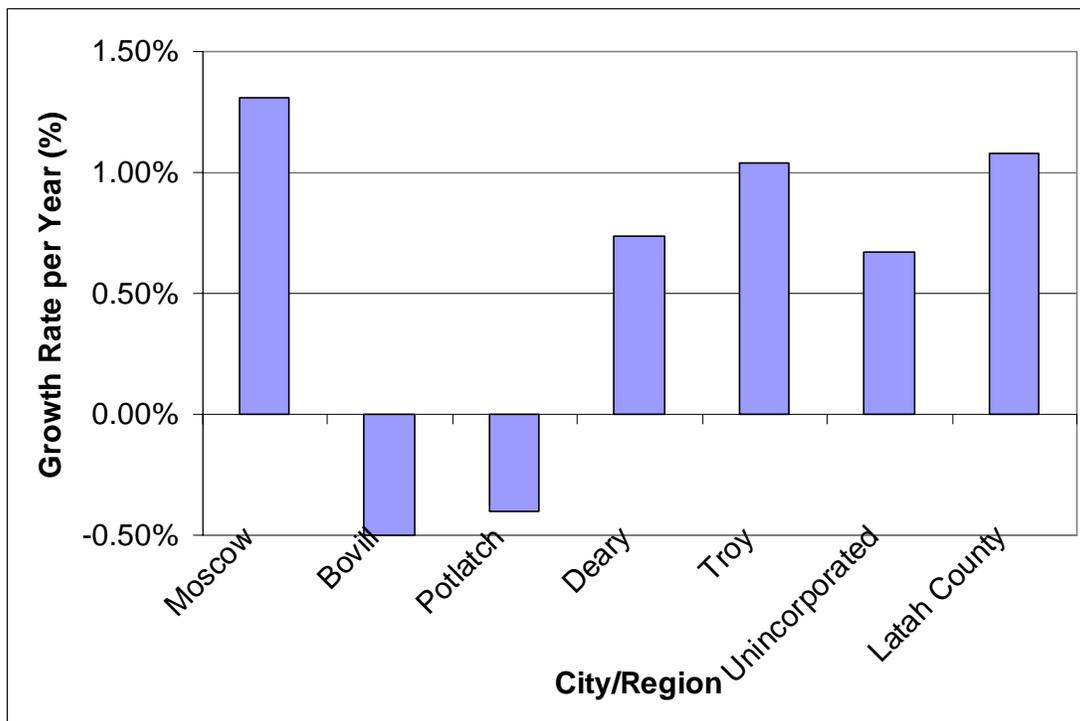
⁴Growth rate is calculated from 1970 – 2003.

⁵Growth rate is calculated from 1970 – 2000.

⁶Growth rate is calculated from 1970 – 2002.

The data in Table 3-1 suggest that the majority of the growth, on both a percentage and population basis is occurring in Moscow. Consequently, it is reasonable to expect that NLCHD roadways near Moscow will experience a higher growth rate than roadways in other areas of the county. However, Figure 3-8 clearly demonstrates that the county growth rate is only 0.23% less than that of the city of Moscow over the past 35 years. Because Moscow comprises such a large percentage of the overall population of Latah County, the growth of Moscow essentially dictates the growth of the county.

Figure 3-8: Average Annual Population Growth Rates



PROJECTED POPULATION GROWTH

Comprehensive plans exist for all of the cities in Latah County except Bovill. The comprehensive plans for Potlatch and Moscow provide an estimate of population growth within each city. The population of Potlatch is projected to increase at a rate of 1.5% per year, while the population of Moscow is projected to increase at a rate of 1-2% per year. The comprehensive plans for the cities of Deary and Troy do not give population projections.

Along with projected growth rates given in the comprehensive plans mentioned above, ITD also provides growth projections for Latah County as a whole, and for individual roadways within the county. ITD's projected growth rate for Latah County is 1% per year, while ITD's projected growth rate for some of the major roadways in the county range between 1% and 2%.

In general, it is likely that the growth on county roadways will occur at a rate at or below the historical growth rate for the city of Moscow, but greater than historical growth rates for the smaller cities and unincorporated areas within the NLCHD. Also, it is likely that growth projections used within the comprehensive plans and by ITD are slightly conservative. Based on this evaluation, assuming a regional average growth rate of approximately 1.20% per year should provide for reasonable, yet conservative, projection of future traffic growth. This would equal a population growth of approximately 43 % between the population recorded in 2002 and the projected population in 2030. Using this growth rate over the next 25 years (2005-2030) yields a total growth of approximately 35 %, which was applied to the existing 2005 traffic volumes to obtain projected 2030 traffic volumes.

FUTURE TRANSIT NEEDS

The need for improved demand-response service will continue to increase as the population grows in Latah County. In addition, comments from the public suggest that some type of commuter transit service should be considered to connect Troy and Deary to Moscow and Potlatch to Moscow. One possibility is the provision of two separate commuter bus routes (one along US 95 and one along SH 8) that travel from the smaller communities to Moscow during the a.m. peak period and from Moscow to the smaller communities during the p.m. peak period. A feasibility study, survey, and benefit-cost study would need to be performed to analyze the viability of providing this service. The Federal Rural Public Transportation Program 5311 will fund operating expenses with a 42.5% match by the sponsor(s). This improves the feasibility of providing transit options to the county with the change in funding. If fuel costs continue to rise, more people will turn to public transit options to reduce costs, and the need or demand for public transit may grow faster than predicted.

FUTURE BICYCLE AND PEDESTRIAN CONNECTIVITY

As energy costs rise, and the media continues to focus on the health crisis in the United States brought on in part by lack of exercise, people will search for alternative modes of transportation that include bicycles, walking, and possibly personal electric-powered transportation devices such as scooters. The cities of Moscow, Troy, and Potlatch emphasize bicycle and pedestrian transportation in their planning efforts. Students attending the University of Idaho increase the bicycle-riding population in Moscow significantly. An increase in the use of personal electric-powered transportation devices could have an impact on the design of roadway cross sections, especially in the use of bike lanes and sidewalks. In planning for the future, NLCHD must consider alternative modes of transportation, especially in those areas surrounding Moscow, as well as those areas surrounding the smaller cities in the highway district. There are several methods to provide for these alternate modes of travel:

Widened, paved shoulders

Bike lanes

Public sidewalks

Separated multi-use paths often associated with abandoned railway facilities

PROJECTED 2030 TRAFFIC VOLUMES AND TRAFFIC OPERATIONS

Based on the projected population growth analysis, the existing traffic volumes were factored by the 1.2% per year growth rate to estimate 2030 traffic volumes. Figure 3-9 shows the resulting 2030 traffic volume projections. An operational evaluation of each of the study roadways included a comparison of the 2030 projected traffic volumes and existing roadway widths to the criteria in Table 2-2. Most low-volume roadways that were found to be acceptable in the existing conditions evaluation did not experience enough growth to cause capacity or operational deficiencies. Table 3-2 displays the results of the operational evaluation, showing only those roadways or sections of roadway that failed to meet the volume or roadway width criteria. Any roadway satisfying both the traffic volume, roadway width, and surface type criteria is not shown in Table 3-2.

2030 Forecast Av

Legend

2030 Traffic Counts

- Hodge & Assoc./Kittelson & Assoc. Count
- City of Moscow Count
- Highway District Count

North Latah County Roads

— North Latah County Roads

Latah County Streets

- Highway
- Secondary Road
- Local Road
- Latah County
- Highway District Boundary

Hodge & Associates, Inc.

Engineers Planners Surveyors Landscape Architects



Geographic Mapping Consultants, Inc.

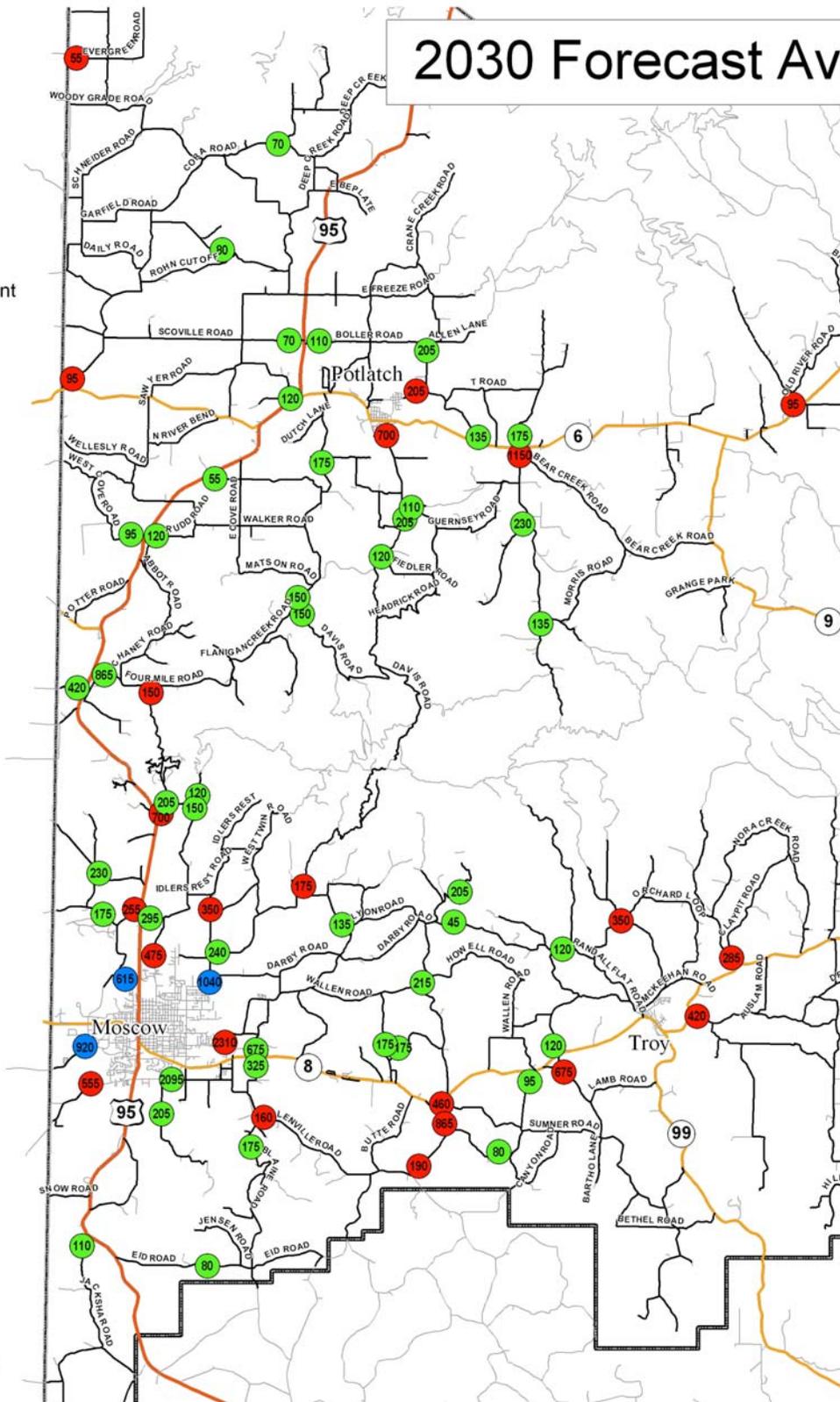


KITTELSON & ASSOCIATES, INC.

TRANSPORTATION PLANNING/TRAFFIC ENGINEERING



MAP IS FULL SCALE ON 22" X 34"



**Table 3-2
 Future Conditions Roadway Operational Evaluation**

<i>Roadway</i>	<i>Average Daily Traffic</i>	<i>Meets ADT Criteria?</i>	<i>Roadway Width (ft)</i>	<i>Meets Width Criteria?</i>	<i>Surface Upgrade Criteria</i>
Major Collectors					
Frink Road/Crumarine Loop	80	Yes	18-20	No	No
Robinson Park Road	2,305	Yes	22-26	Partial	Yes
Minor Collectors					
Driscoll Ridge Road <i>-Paved (N of Lamb Road)</i>	770	Yes	22	No	Yes
Flannigan Creek Road <i>-Unpaved (Between Short Lane & Davis Rd)</i>	150	Yes	20	Yes	No
Four Mile Road	860	Yes	22	No	Yes
Genesee-Troy Road <i>- Unpaved (S of Lenville Rd)</i>	180	Yes	24 ft	Yes	No
Hatter Creek Road <i>-Paved (N of Guernsey Cut-Off)</i>	1,145	Yes	21	No	Yes
Lamb Road	675	Yes	22	No	Yes
Little Bear Ridge Road	420	Yes	18-24	Partial	Yes
Rock Creek Road <i>-Paved (N of Guernsey Cut-Off)</i>	700	Yes	22	No	Yes
Spring Valley Road <i>-Unpaved (northern section)</i>	Unknown	N/A	14	No	No
Local Roads					
Lewis Road	700	No	24	Yes	Yes
Mill Road	325-675	Partial	24	Yes	Yes
Mountain View Road	1,040	No	24	Yes	Yes
Old Pullman Road	915	No	18-20	No	Yes
Palouse River Drive	2,090	No	24-25	Yes	Yes
Polk Street Extension	470	No	20	Yes	No
Sand Road	550	No	21-24	Partial	Yes

Each roadway identified in Table 3-2 that does not meet the traffic volume, roadway width, or surface type criteria is discussed below:

Frink Road/Crumarine Loop

Frink Road is classified as a major collector and connects to Robinson Park Road to the east and Moscow Mountain Road to the west, both major collectors. Frink Road currently exists as an unpaved roadway with a width varying between 18 and 20 feet. While the traffic volume on Frink Road is projected to remain relatively low, the existing width does not meet the 26-foot standard adopted by the NLCHD for collector facilities. Therefore, widening of Frink Road to at least 26 feet is recommended. Also, because Frink Road provides a connection between two paved major collectors, it is recommended that the roadway be paved to provide a consistent surface type.

Robinson Park Road

Robinson Park Road is classified as a major collector and is the highest volume roadway within the NLCHD. It serves as the primary connection between the city of Moscow and numerous housing developments and recreational areas to the east of Moscow. The paved roadway width varies between approximately 22 feet and 26 feet; therefore, sections of the roadway exist at widths less than the 26-foot standard adopted by the NLCHD for major collectors. Widening of these deficient sections of the roadway to at least 26 feet is recommended to meet the standard for collector facilities.

Driscoll Ridge Road (North of Lamb Road) and Lamb Road

The section of Driscoll Ridge Road to the north of Lamb Road is classified as a minor collector and is the highest volume road accessing SH 8. It serves rural residential areas to the west and south of Troy; however, the roadway is primarily used as a cut-off (in conjunction with Lamb Road) between SH 8 and SH 99. It is not expected that driver travel patterns will change, therefore the assumption is that a large number of vehicles will continue to use this corridor as a cut-off to decrease travel time and to bypass the city of Troy. Due to this assumption, the Driscoll Ridge Road and Lamb Road connection should be considered for functional classification upgrade. The existing paved roadway width is approximately 22 feet, which is less than the 26-foot standard adopted by the NLCHD for collector facilities. Therefore, widening of Driscoll Ridge Road and Lamb Road to at least 26 feet is recommended.

Flannigan Creek Road

Flannigan Creek Road is classified as a minor collector serving a large number of rural homes between Viola and Potlatch. To the south of Davis Road, extending to Four Mile Road, Flannigan Creek Road is paved with a width of approximately 22 feet. Between Davis Road and Short Lane/Lisher Cut-off, Flannigan Creek Road is unpaved with a width of approximately 20 feet. To the north of Short Lane, extending to SH 6, Flannigan Creek Road is paved with an approximate width of 24 feet. In addition to the residential areas it serves, Flannigan Creek Road provides an alternative parallel route to the state highway system. Because the Flannigan Creek Road/Four Mile Road minor collector is the best option to provide an alternate route to US 95 between Viola and Potlatch, it is recommended that the deficient sections of roadway be widened and paved to the NLCHD roadway standard of 26 feet for collector facilities. It is also recommended that the Flannigan Creek Road/Four Mile Road corridor be considered for a functional classification upgrade.

Four Mile Road

Four Mile Road is classified as a minor collector and is one of the highest volume roads in the NLCHD. It functions as a connection between US 95 and the town of Viola, along with serving numerous other rural homes in this steadily growing area to the north of Moscow. Four Mile Road is paved with varying widths

from approximately 19 feet to 24 feet over the length of the roadway. The width of Four Mile Road does not meet the 26-foot standard currently adopted by the NLCHD for collectors. Because the Flannigan Creek Road/Four Mile Road minor collector is the best option to provide an alternate route to US 95 between Viola and Potlatch it is recommended that the roadway be widened to a consistent paved section of 26 feet. It is also recommended that the Flannigan Creek Road/Four Mile Road corridor be considered for a functional classification upgrade.

Genesee-Troy Road

Genesee-Troy Road is classified as a minor collector, functioning together with SH 8 to connect the communities of Genesee and Troy. Genesee-Troy Road north of Lenville Road is paved with a width of approximately 24 feet. Genesee-Troy Road south of Lenville Road is unpaved with a width of approximately 24 feet. Neither of these segments of roadway meets the NLCHD roadway standard of 26 feet for collector facilities. Therefore, widening of both segments to a width of 26 feet and paving the unpaved segment is recommended.

Hatter Creek Road (North of Morris Road)

Hatter Creek Road is classified as a minor collector and is one of the highest volume roads in the NLCHD. It functions as a connection between SH 6 and numerous residential and recreational areas in this steadily growing area to the southeast of Potlatch. The paved roadway width varies between approximately 20 feet and 22 feet; therefore this entire section of Hatter Creek Road exists at widths less than the 26-foot standard adopted by the NLCHD for collector facilities. Widening of the roadway to 26 feet is recommended to meet the standard of its minor collector classification.

Little Bear Ridge Road

Little Bear Ridge Road is classified as a minor collector serving a large number of rural homes to the southeast of Troy. Little Bear Ridge Road north and west of Camps Canyon Road is paved with a width of approximately 24 feet. Little Bear Ridge Road south of Camps Canyon Road is unpaved with a width varying between approximately 18 feet and 22 feet. Paving and widening of the roadway to the 26 foot standard for collectors is recommended.

Rock Creek Road (North of Guernsey Cut-Off)

The section of Rock Creek Road to the north of Guernsey Cut-Off is classified as a minor collector serving a large number of rural homes to the south of Potlatch. The existing paved roadway width is approximately 22 feet, which is less than the 26-foot standard adopted by the NLCHD for collector facilities. Widening of the roadway to the 26-foot standard is recommended.

Spring Valley Road

Spring Valley Road is classified as a minor collector, and serves to provide access from SH 8 to Spring Valley Reservoir, a popular recreational area for residents of Moscow, Troy, and Deary. Spring Valley Road also provides access to numerous rural residential areas, particularly along Claypit Road. The roadway width varies between approximately 14 feet and 26 feet; therefore sections of the roadway exist at widths less than the 26-foot standard adopted by the NLCHD for collector facilities. Paving and widening of the deficient section of the roadway to the 26 foot standard for collectors is recommended.

Lewis Road

Lewis Road is a local road connecting US 95 to Foothill Road. This connection serves to provide access from US 95 to popular recreational areas to the north of the city of Moscow, as well as numerous rural residential areas. The existing ADT on Lewis Road of 520 vehicles per day exceeds the maximum recommended ADT of 400 vehicles per day for rural local roads. The 2030 projected volume of 700 vehicles per day will also exceed this threshold. It is reasonable to assume that traffic on Lewis Road will increase at a rate faster than the assumed 1.2% growth rate suggests, as people continue to relocate from Moscow to this area, and as recreational opportunities in this area increase. As a result, it is recommended that Lewis Road be considered for a functional classification upgrade and should the roadway be upgraded, that corresponding improvements be made to bring the roadway up to the adopted NLCHD width standard for collector facilities.

Mill Road

Mill Road is a local road connecting Robinson Park Road and Lenville Road to SH 8. As the city of Moscow continues to expand toward the east, it is reasonable to assume that traffic on Mill Road will continue to increase. The existing ADT on Mill Road of 500 vehicles per day exceeds the maximum recommended ADT of 400 vehicles per day for rural local roads. The 2030 projected volume of 700 vehicles per day will exceed this threshold, as well. Because of the high volume of traffic already existing on Mill Road (particularly north of SH 8) and anticipated continued growth, Mill Road should be considered for a functional classification upgrade. Should the roadway be upgraded, corresponding improvements would have to be made to bring the roadway up to the adopted NLCHD standard width for collector facilities.

Mountain View Road

Mountain View Road is a local road providing access to popular recreational areas to the north of the city of Moscow as well as numerous rural residential areas. The existing ADT on Mountain View Road of 770 vehicles per day greatly exceeds the maximum recommended ADT of 400 vehicles per day for rural local roads. The 2030 projected volume of 1040 vehicles per day will exceed this threshold as well. Mountain View Road currently exists as a 24-foot wide paved roadway. Because of the high volume of traffic already existing on the roadway and anticipated continued growth, Mountain View Road should be considered for a functional classification upgrade. Should the roadway be upgraded, corresponding improvements would have to be made to bring the roadway up to the adopted NLCHD standard width for collector facilities.

Old Pullman Road

Old Pullman Road is a local road connecting the city of Moscow to the city of Pullman, Washington. The majority of Old Pullman Road lies within the State of Washington, with less than one mile being within the NLCHD. In the state of Washington, Old Pullman Road is classified as a minor collector. The existing ADT on Old Pullman Road of 680 vehicles per day exceeds the maximum recommended ADT of 400 vehicles per day for rural local roads. The 2030 projected volume of 915 vehicles per day will exceed this threshold as well. Also, it is important to note that the section of Old Pullman Road located within the NLCHD may be annexed into the city at some point in the future. Keeping this in mind, it is recommended that the NLCHD collaborate with the city of Moscow to determine the future administration of Old Pullman Road. If it is expected that the roadway will be annexed into the city within the next 5-10 years, then the NLCHD and the city should work together to determine how improvements will be funded leading up to the annexation. If it is expected that the roadway will be annexed into the city some time

after 10 years, or if there is no expectation for annexation, then it is recommended that efforts be made to upgrade the classification of Old Pullman Road and implement corresponding improvements to bring the roadway up to the adopted NLCHD standard for collector facilities.

Palouse River Drive (and Sand Road)

Palouse River Drive is local road serving traffic traveling between numerous business and residential areas immediately to the south of the city of Moscow. The existing ADT on Palouse River Drive of 1550 vehicles per day greatly exceeds the maximum recommended ADT of 400 vehicles per day for rural local roads. The 2030 projected volume of 2,090 vehicles per day will greatly exceed this threshold, as well, and it is realistic to assume that because of the potential for significant development on or around Palouse River Drive the volume may increase at a rate faster than the assumed 1.2% growth rate suggests. Also, it is important to note that the western half of Palouse River Drive (named Sand Road) is largely within the city of Moscow's area of impact, and may be annexed into the city at some point in the future. Keeping this in mind, it is recommended that the NLCHD collaborate with the city of Moscow to determine the future administration of Palouse River Drive and Sand Road. If it is expected that these roadways will be annexed into the city within the next 5-10 years, then the NLCHD and the city should work together to determine how improvements will be funded leading up to the annexation. If it is expected that these roadways will be annexed into the city some time after 10 years, or if there is no expectation for annexation, then it is recommended that efforts be made to upgrade the classification of Palouse River Drive and Sand Road and improve both roadways to meet the adopted NLCHD standard width for collector facilities. Sand Road is classified as a minor collector in Whitman County, Washington.

Polk Street Extension

Polk Street Extension is a local road that carries primarily residential traffic from the expanding northern section of Moscow to Foothill Road and US 95. As the city of Moscow continues to expand toward the north, it is reasonable to assume that traffic on the Polk Street Extension will continue to increase at a rate faster than the assumed 1.2% growth rate suggests. Currently, the ADT on the Polk Street Extension is 350 vehicles per day, which is below the maximum recommended ADT of 400 vehicles per day for rural local roads. However, the 2030 projected volume of 470 vehicles per day will exceed this threshold. Keeping this in mind, it is recommended that the NLCHD collaborate with the city of Moscow to determine the future administration of the Polk Street Extension. If it is expected that the roadway will be annexed into the city within the next 5-10 years, then the NLCHD and the city should work together to determine how improvements will be funded leading up to the annexation. If it is expected that the roadway will be annexed into the city some time after 10 years, or if there is no expectation for annexation, then it is recommended that the Polk Street Extension be considered for a functional classification upgrade and widening to the NLCHD standard roadway width occur should the roadway be upgraded.

There are several roadways that meet all volume, width and surface type requirements, but should still be considered for classification upgrade due to the fact that they provide one or more of the following:

- A critical connection between population centers or other collectors
- An alternate route to an arterial or a state highway
- Access to existing or future residential developments

- A cut-off route between two state highways

Below is a list of additional roadways not listed in Table 3-2 that should be considered for a functional classification upgrade:

- Darby Road – provides a connection between the city of Moscow and Robinson Park Road
- Lenvill Road – provides a connection between the city of Moscow and the city of Juliaetta
- Saddle Ridge Road – serves as a link in a alternate route to US 95 and provides access to developing areas north of the city of Moscow
- Brood Road-Wallen Road-Teare Toad – provides a connection between SH 8 and Randall Flat Road
- Foothill Road – serves as a link in an alternate route to US 95 and provides access to developing areas north of the city of Moscow
- Bear Creek Road – serves as a cut-off route between SH 6 and SH 9
- Gold Hill Road – provides access to developing areas to the north of Princeton

Improvements and Project Alternatives

INTRODUCTION

This section presents future transportation improvement and project alternatives that could be implemented to mitigate existing and projected future transportation system deficiencies identified in Sections 2 and 3 of this plan. Projects were identified from several categories that include: general NLCHD priorities, capacity improvement projects, safety improvement projects, bicycle and pedestrian projects, stated public concerns, roadway condition improvements, maintenance procedures, and regulatory agencies' requirements. Some proposed improvements and projects might fall into more than one of these categories. However, each proposed improvement or project came about as a result of addressing a specific category.

PROJECTS AND ALTERNATIVES

GENERAL NORTH LATAH HIGHWAY DISTRICT IDENTIFIED PRIORITIES

The district commissioners and roads supervisor are the most knowledgeable of the roadway system they are responsible for. Prior to starting this transportation plan, the highway district recognized the need for specific capital improvement projects, a change in some maintenance practices, safety improvements, and the ability to comply with regulatory requirements. The district lacked funds to address these needs. This plan is a step towards obtaining the needed funds. The NLCHD's general concerns are listed below.

- Pave high-traffic gravel roads.
- Upgrade all roads to an accepted NLCHD standard cross-section.
- Apply chloride or other treatments to gravel roads to help keep aggregate in place and to reduce dust.
- Replace single-lane bridges with two-lane bridges.
- Lengthen culverts in areas where roadway widening and/or the addition of culverts will occur.
- Add delineators and install warning signage at sharp horizontal curves or abrupt changes in roadway configuration.
- Identify and provide a consistent and efficient water supply for the NLCHD.

The specific projects contained in the following sections identify the roadways and intersections most in need of improvements, based on the existing conditions and future conditions evaluations.

SAFETY PROJECTS

Safety projects are those where the primary goal is to improve safety deficiencies or improve roadways with a high number of crashes or a high crash rate. The following provides descriptions of the projects identified as safety improvement projects.

1. Four Mile Road/Flannigan Creek Road Corridor

- **Four Mile Road/Viola Main Street**

The Four Mile Road/Viola Main Street intersection is located on the northern edge of the town of Viola, and immediately east of the US 95/Four Mile Road intersection. Four Mile Road is currently classified as a minor collector, while Viola Main Street is an unclassified local road. The primary safety issue identified at this intersection is a lack of warning signage in the vicinity of the intersection, and a lack of stop/yield signage at the intersection. Based on this observation, the following improvements are recommended:

- Increase warning signage on all three approaches leading up to the intersection.
- Provide stop control for northbound Viola Main Street.

- **Flannigan Creek Road/Davis Road Intersection Improvements**

The Flannigan Creek Road/Davis Road intersection is located approximately 5 miles south of the Potlatch city limits. Flannigan Creek Road is currently classified as a minor collector, while Davis Road is currently an unclassified local road. There were multiple safety issues identified at this intersection, including lack of sight distance, inconsistent roadway surface types, and signage deficiencies. Based on these observations, the following improvements are recommended:

- Trim foliage on the southwest corner of the intersection to improve sight distance.
- Extend the pavement on Flannigan Creek Road through the intersection with Davis Road.
- Provide stop control for northbound Davis Road.
- Conduct a speed study in the vicinity of the intersection and post an appropriate speed limit based on the results of the study.

2. Robinson Park Road

- **Robinson Park Road Improvements (Moscow city limits to Randall Flat Road)**

Robinson Park Road is currently classified as a major collector, and is the highest volume roadway in the NLCHD. The paved roadway width varies between approximately 22 feet and 26 feet; therefore sections of the roadway exist at widths less than the 26-foot standard for major collectors. A number of comments were received about vehicles traveling at high speeds along Robinson Park Road, which when combined with the high volume on the roadway, results in a high number of crashes, the highest of any roadway in the NLCHD. Also, a number of comments were received about prevalent slick and icy conditions in certain areas of the roadway during the winter months. Based on these observations, the following improvements are recommended:

- Widen the roadway to at least 26 feet of travel width to meet the NLCHD standard for major collectors.
- Consider adding 4 foot wide paved shoulders from the Moscow city limits to the intersection with Darby Road to accommodate the high number of pedestrians and bicyclists on Robinson Park Road.
- Add fog lines, centerline striping, and delineators to clearly distinguish travel lanes and shoulders.

- Conduct speed studies along the roadway and post appropriate speed limits based on the results of those studies.
- Review winter maintenance options for reducing the impacts of ice on the roadway.

- **Darby Road/Lyon Road/Robinson Park Road Intersection Improvements**

The Darby Road/Lyon Road/Robinson Park Road intersection is located approximately 5 miles northeast of the Moscow city limits along the highest volume roadway in the NLCHD, Robinson Park Road. Darby Road and Lyon Road are currently unclassified local roads, while Robinson Park Road is currently classified as a major collector. The primary safety issue identified at this intersection is limited sight distance for eastbound drivers on Darby Road due to the embankment on the northwest corner of the intersection. In addition, speeds along Robinson Park Road are excessive at times causing unsafe conditions for drivers attempting to cross or turn onto Robinson Park Road. Based on these observations, the following improvements are recommended:

- Cut back the embankment on the northwest corner to improve sight distance.
- Conduct a speed study on Robinson Park Road in the vicinity of the intersection, and post an appropriate speed limit based on the results of the study.

- **Wallen Road/Robinson Park Road Intersection Improvements**

The Wallen Road/Robinson Park Road intersection is located approximately 4 miles northeast of the Moscow city limits. Robinson Park Road is currently classified as a major collector, while Wallen Road is an unclassified local road. The primary safety issue identified at this intersection is marginal sight distance for drivers traveling northbound on Wallen Road due to the embankment on the southeast corner of the intersection, and the high speeds vehicles often travel at on Robinson Park Road. Based on these observations, the following improvements are recommended:

- Cut back the embankment on the southeast corner of the intersection to improve sight distance.
- Increase warning signage on all three approaches leading up to the intersection.
- Conduct a speed study on Robinson Park Road in the vicinity of the intersection, and post an appropriate speed limit based on the results of the study.

3. Lenville Road

- **Lenville Road (SH 8 to Genesee-Troy Road)**

Lenville Road is currently classified as a minor collector, and functions as a critical connection between the city of Moscow, the Genesee-Troy Road, and the city of Juliaetta. Over 30% of the crashes on Lenville Road were related to driving too fast for conditions. There were also a number of crashes occurring during snowy or icy conditions. Lenville Road has been discussed as a route for bicyclists since it forms part of a loop from Moscow through Juliaetta and Genesee. Also, it should be noted that in the 2004 SLHD Transportation Plan, Lenville Road was recommended for re-classification as a major collector within the SLHD. Based on these observations, the following improvements are recommended:

- Widen the roadway to at least 26 feet of travel width to meet the NLCHD standard for collector facilities.
 - Consider adding 4-foot wide paved shoulders to accommodate the expected increase in pedestrians and bicyclists using Lenville Road.
 - Increase warning signage prior to the sharp curves located near the city of Moscow.
 - Add fog lines, centerline striping, and delineators to clearly distinguish travel lanes and shoulders.
 - Review winter maintenance options for reducing the impacts of ice on the roadway.
- **Lenville Road/Mill Road Intersection Improvements**

The Mill Road/Lenville Road intersection is located approximately 2 miles southeast of the Moscow city limits. Lenville Road is currently classified as a minor collector, while Mill Road is currently an unclassified local road. The primary safety issues identified at this intersection are marginal sight distance for drivers traveling southbound on Lenville Road due to the embankment on the south side of Lenville Road and the high speed of vehicles on Lenville Road. Based on these observations, the following improvements are recommended:

- Cut back the embankment, and trim foliage on the south side of Lenville Road to improve sight distance.
- Modify the control on Mill Road from yield control to stop control.
- Conduct a speed study in the vicinity of the intersection, and post an appropriate speed limit based on the results of the study.

4. Mill Road

- **Mill Road (Robinson Park Road to Lenville Road)**

Mill Road is currently an unclassified local road, but is a heavily traveled link between Robinson Park Road (currently classified as a major collector) and Lenville Road (currently classified as a minor collector). Vehicles have been observed traveling at high speeds along the roadway and a substantially high number of crashes were reported at the intersection with SH 8. In addition, the section of Mill Road to the south of SH 8 has the potential to receive a high amount of pedestrian and bicycle traffic because of the connection it provides between Lenville Road and the Latah Trail. Based on these observations, the following improvements are recommended:

- Add 4 foot wide paved shoulders to accommodate the high number of pedestrians and bicyclists anticipated to be using Mill Road.
- Increase warning signage in advance of the numerous sharp curves located along Mill Road.
- Add fog lines, centerline striping, and delineators to clearly distinguish travel lanes and shoulders.
- Conduct speed studies along the roadway, and post appropriate speed limits based on the results of those studies.
- Review with ITD possible improvements that could be implemented to improve the safety of the SH 8/Mill Road intersection.

5. Moscow Mountain Road

- **Moscow Mountain Road (Mountain View Road to Frink Road)**

This section of Moscow Mountain Road is currently classified as a major collector, functioning to provide access to numerous rural residential homes and to popular recreational areas to the north and east of the city of Moscow. Moscow Mountain Road has a width of 24 feet between Mountain View Road and Frink Road, with a portion of the roadway existing as unpaved. Moscow Mountain Road also has one of the highest crash rates of any road in the NLCHD, with the majority of the crashes occurring on the section between Mountain View Road and Frink Road. Based on these observations, the following improvements are recommended:

- Widen the roadway to at least 26 feet to meet the NLCHD standard for major collectors.
 - Pave the remaining unpaved section up to Frink Road.
 - Add centerline striping, and delineators to clearly distinguish travel lanes.
 - Relocate the numerous utility poles and guy wires that are located very near the shoulder of the roadway to eliminate these roadside safety hazards.
 - Review the need for additional warning signage on curves.
 - Consider adding 4 foot wide shoulders to accommodate the high number of pedestrians and bicyclists that will most likely use this road once it is completely paved and development increases in the area.
- **Moscow Mountain Road/Frink Road Intersection Improvements:**

The Moscow Mountain Road/Frink Road intersection is located approximately 5 miles northeast of the Moscow city limits. Both Moscow Mountain Road and Frink Road are currently classified as major collectors in the vicinity of the intersection. The primary safety problem identified at this intersection is a lack of warning signage in the vicinity of the intersection to caution drivers about the sharp curve and limited sight distance at the intersection. Based on this observation, the following improvement is recommended:

 - Increase warning signage on all three approaches leading up to the intersection.

- **Moscow Mountain Road – Other Intersections**

The following intersections had a high number of crashes, and should be examined in greater detail to determine if specific improvements are needed.

- Moscow Mountain Road/Mountain View Road
- Moscow Mountain Road/Herrington Road

6. Paradise Ridge Road

Paradise Ridge Road had a high concentration of crashes in the curves to the south of the city of Moscow impact area, with the remaining crashes being spread out over the length of the roadway. Over half of the crashes included drivers traveling at speeds too fast for conditions. In addition, observations revealed excess gravel in a number of locations, which presents a safety hazard, particularly for those vehicles that are driving too fast for the conditions. Based on these observations, the following improvements are recommended:

- Increase warning signage on curves to the south of the city of Moscow impact area.
- Conduct an evaluation of the roadway surface conditions to identify areas needing magnesium-chloride treatment, or areas needing more frequent grading to cut down on the corrugation in the roadway.

7. Randall Flat Road

- **Randall Flat Road Improvements (Robinson Park Rd to Troy city limits)**

Randall Flat Road is currently an unclassified local road carrying a moderate amount of traffic from Robinson Park Road to the city of Troy. Randall Flat Road exists as both a paved and unpaved roadway with a width varying from 20 feet to 24 feet. There is very limited sight distance at a number of curves along the roadway, as well as a number of trees that are “pinching” the roadway between Hendrix Road and Felton Creek Road. Improving Randall Flat Road would serve to provide a reasonable alternative route to SH 8 between the city of Moscow and the city of Troy (Randall Flat Road/Robinson Park Road corridor). Based on these observations, the following improvements are recommended:

- Pave the remaining unpaved section between Robinson Park Road and Dutch Flat Road.
- Trim foliage obstructing the sight distance at curves along the roadway.
- Remove the trees “pinching” the roadway between Hendrix Road and Felton Creek Road.
- Add centerline striping and delineators to clearly distinguish travel lanes.

- **Randall Flat Road/Tamarack Road Intersection Improvements**

The Randall Flat Road/Tamarack Road intersection is located approximately 3 miles northwest of the Troy city limits. Both Randall Flat Road and Tamarack Road are currently unclassified local roads. The primary safety issue identified at this intersection is inconsistency in roadway surface type through the intersection. Based on this observation, the following improvement is recommended:

- Extend the pavement on Randall Flat Road through the intersection with Tamarack Road.

- **Randall Flat Road/Hendrix Road Intersection Improvements:**

The Randall Flat Road/Hendrix Road intersection is located approximately halfway between the cities of Moscow and Troy. Both Randall Flat Road and Hendrix Road currently exist as unclassified local roads. The primary issues identified at this intersection are limited sight distance to the east due to the close proximity of a horizontal curve in Randall Flat Road, and limited sight distance to the west due to the close proximity of a steep crest vertical curve on Randall Flat Road. Based on these observations, the following improvement is recommended:

- Due to the location and topographic constraints in the vicinity of the intersection, reasonable and cost-effective mitigation opportunities are most likely limited to increased warning signage leading up to the intersection.

8. Wallen Road

- **Wallen Road (Robinson Park Road to SH 8)**

Wallen Road is currently an unclassified local road carrying a moderate amount of traffic to developing areas east of the city of Moscow. Wallen Road exists as both a paved and an unpaved roadway with a width varying from 22 feet to 24 feet. Areas along Wallen Road are developing at a relatively fast rate in comparison to the majority of the NLCHD, and it is expected that development along Wallen Road will continue increasing faster than the majority of the NLCHD. Also, Wallen Road has one of the highest crash rates of any roadway in the NLCHD. Based on these observations, the following improvements are recommended:

- Consider paving the remaining unpaved section of Wallen Road between Brood Road and SH 8.
- Add centerline striping and delineators to clearly distinguish travel lanes.
- Conduct speed studies along the roadway and post appropriate speed limits based on the results of those studies.

- **Wallen Road/Teare Road Intersection Improvements**

The Wallen Road/Teare Road intersection is located approximately 5 miles east of the Moscow city limits. Both Wallen Road and Teare Road are unclassified local roads. The primary safety issues identified at this intersection are lack of sight distance for drivers traveling northbound on Teare Road due to the embankment on the southeast corner of the intersection, and the high speeds vehicles often travel on Wallen Road. Based on these observations, the following improvements are recommended:

- Cut back the embankment on the southeast corner of the intersection to improve sight distance.
- Increase warning signage on all three approaches leading up to the intersection.
- Conduct a speed study in the vicinity of the intersection and post an appropriate speed limit based on the results of the study.

- **Wallen Road/Larson Road Intersection Improvements**

The Wallen Road/Larson Road intersection is located approximately 6 miles east of the Moscow city limits. Both Wallen Road and Larson Road exist as unclassified local roads. The primary safety issue identified at this intersection is inconsistency in roadway surface type through the intersection. Based on this observation, the following improvement is recommended:

- Extend the pavement on Wallen Road through the intersection with Larson Road.

9. Mix Road (Moscow city limits to US 95)

Mix Road is currently classified as a minor collector carrying a high volume of traffic from the city of Moscow to residential areas north of the city and to US 95. Mix Road has an existing paved roadway width of 24 feet, which does not meet the NLCHD standard for minor collectors. There is very limited sight distance at a couple of private driveway access points just to the north of the Moscow city limits. A mirror has been placed at one of the access points located on a blind curve. This mirror is used by drivers entering Mix Road to see vehicles approaching from the south. Also, due to the residential development along Mix Road, there are a number of

pedestrians and bicyclists using the roadway for recreation and access to the city of Moscow. Based on these observations, the following improvements are recommended:

- Widen the roadway to at least 26 feet of travel width to meet the NLCHD standard for minor collectors.
- Add 4 foot wide paved shoulders to accommodate the high number of pedestrians and bicyclists using Mix Road.
- Trim foliage obstructing the sight distance at the private driveway access points.
- Improve the intersection with Canterwood Drive by removing vegetation and cutting back the embankment.
- Increase warning signage prior to the intersections with the private driveways.
- Add fog lines, centerline striping, and delineators to clearly distinguish travel lanes and shoulders.

10. Little Bear Ridge Road (SH 8 to Hill Road)

Little Bear Ridge Road is currently classified as a minor collector carrying a reasonable volume of traffic to rural residential areas southeast of the city of Troy. The paved section of the roadway varies between approximately 22 feet and 24 feet in width, while the unpaved section of roadway is approximately 18 feet in width. One safety issue identified on Little Bear Ridge Road is a lack of warning signage leading up to some of the sharp curves along the roadway. Also, a number of comments were received about prevalent slick and icy conditions in certain areas of the roadway during the winter months. Based on these observations, the following improvements are recommended:

- Widen the roadway to at least 26 feet of travel width to meet the NLCHD standard for minor collectors.
- Increase warning signage in advance of the numerous sharp curves located along Little Bear Ridge Road.
- Review winter maintenance options for reducing the impacts of ice on the roadway.

11. Rock Creek Road (Potlatch city limits to East Rock Creek Road)

Rock Creek Road is currently classified as a minor collector from SH 6 to its junction with East Rock Creek Road. Immediately south of the Potlatch city limits Rock Creek Road carries one of the highest volumes of traffic of any roadway in the NLCHD. This section of Rock Creek Road has an existing paved roadway width of 22 feet, which does not meet the NLCHD standard for minor collectors. The primary safety issue identified is limited sight distance at several curves just south of the Potlatch city limits. Based on these observations, the following improvements are recommended:

- Widen the roadway to at least 26 feet of travel width to meet the NLCHD standard for minor collectors.
- Increase warning signage in advance of the limited sight distance curves located just south of the Potlatch city limits.
- Consider adding centerline striping to clearly distinguish travel lanes.

12. Miscellaneous Intersection Projects

The following intersections were identified as needing safety improvements, but were not part of corridors requiring more comprehensive safety improvements.

- **Driscoll Ridge Road/Lamb Road Intersection Improvements**

The Driscoll Ridge Road/Lamb Road intersection is located approximately half way between SH 8 and SH 99, southwest of the Troy city limits. Both Driscoll Ridge Road and Lamb Road are currently classified as minor collectors. This intersection experiences high volumes of traffic because many drivers use Driscoll Ridge Road and Lamb Road as a bypass around Troy and a cut-off between SH 8 and SH 99. The primary safety issue identified at this intersection is lack of sight distance for drivers traveling westbound on Lamb Road due to the embankment on the northeast corner of the intersection. In addition, speeds through the intersection are excessive at times. Based on these observations, the following improvements are recommended:

- Cut back the embankment on the northeast corner of the intersection to improve sight distance.
- Add appropriate warning signage for southbound drivers approaching the intersection.
- Cut back the bank on the northeast quadrant of the intersection to eliminate the blind curve on the north approach to the intersection.
- Consider elevation the south leg of Driscoll Ridge Road near the intersection to improve the sight distance currently limited by the steep vertical curve.
- Conduct a speed study in the vicinity of the intersection and post an appropriate speed limit based on the results of the study.

- **Lewis Road/Foothill Road Intersection Improvements**

The Lewis Road/Foothill Road intersection is located approximately 4 miles north of the Moscow city limits. Both Lewis Road and Foothill Road are currently unclassified local roads, but both roads carry a significant amount of traffic to recreational areas and developing areas to the north of Moscow. The primary safety issue is lack of sight distance for drivers approaching the intersection from the east and south. Based on this observation, the following improvement is recommended:

- Consider moving the yield control from the east leg to the south leg of the intersection, or install yield control on the south leg and maintain yield control on the east leg of the intersection.
- Install intersection warning signage on the east and south approaches.

- **Other Intersection Safety Improvements**

Below are intersections that had an abnormally high number of crashes, or unusual geometric layouts that do not meet driver expectations. These intersections should be reviewed and monitored in order to determine if future improvements are needed:

- Genesee-Troy Road/Cornwall Road
- Little Bear Ridge Road/Hill Road
- Teare Road/Kasper Road intersection

- Travis Road/Fiddlers Ridge Road/SH 6

13. General Signage

Signage in the NLCHD is generally good on the majority of the key roadways. Street name signs are provided at most intersections, and key roadways have limited warning and speed limit signage. The following actions are recommended in regard to improving general signage throughout the NLCHD:

- Install stop signs and street name signs at all intersections of local road with minor collectors, major collectors, or principal arterials.
- Perform speed studies, as required by the State of Idaho for installation of speed limit signage on all major and minor collectors.
- Upgrade all regulatory and warning signs to meet the current *Manual of Uniform Traffic Control Devices* (MUTCD) standards for retro-reflectivity. This is especially critical since most roadways and intersections are not illuminated.
- Review the need for “Stop Ahead” signs at intersections where signage at the intersections is blocked by physical obstructions or overgrown foliage.
- Install warning signage leading up to sharp curves or abrupt changes in roadway configuration.

CAPACITY PROJECTS

Capacity projects typically are improvements to roadways to accommodate either existing or proposed NLCHD standards and/or accommodate increased traffic volumes. Many of the capacity improvements recommended will also benefit the safety of the roadway; therefore, some of the roadways mentioned in the Safety Projects section are repeated in this section. Roadway segments where either existing or future traffic volumes exposed capacity concerns were identified in Sections 2 and 3 of this plan. The following is a description of projects associated with improving capacity.

Widening and Paving Existing Unpaved Collectors

As part of the transportation plan, the NLCHD has a goal of paving all minor and major collectors to an adopted standard width of 26 feet. The following roadways are existing collector roadways with unpaved sections less than 26 feet in width, and therefore will require improvement and paving. Consider adding 4 foot wide paved shoulders to better accommodate pedestrians and bicyclists on roadways marked with a *:

- *Frink Road/Crumarine Loop (Moscow Mountain Road to Robinson Park Road)
- *Moscow Mountain Road (unpaved section west of Frink Road - for improvements to the paved section of roadway west of Frink Road see the comments in the “Safety Projects” section)
- Flannigan Creek Road (Short Lane to Davis Road)

Widening Existing Collectors

As described in the Future Conditions section of this report, the collector roadways listed below require widening to meet the existing or future traffic demand and to meet the adopted NLCHD standard width of 26 feet. Those roadways or sections of roadway in this list that are currently unpaved will be widened to the 26-foot width but remain unpaved. Those collectors that are currently paved will be paved to the 26-

foot width. Consider adding 4 foot wide paved shoulders to better accommodate pedestrians and bicyclists on roadways marked with a *.

- *Robinson Park Road (entire length)
- Driscoll Ridge Road (entire length)
- Lamb Road (entire length)
- Four-Mile Road/Flannigan Creek Road (entire length)
- *Hatter Creek Road (SH 6 to Morris Road)
- *Lenville Road (entire length)
- *Mix Road (entire length)
- Spring Valley Road (SH 8 to Nora Creek Road and the northern section)
- Cora Road/Schneider Road/Garfield Road/Deep Creek Road/Freeze Road Loop
- Little Bear Ridge Road (SH 8 to Hill Road)
- Park Road (SH 8 to South Park Road)
- Thorn Creek Road
- *Genesee-Troy Road (entire length)

Widening and/or Paving Local Roads

As described in the Future Conditions section of this report, the following local roadways require widening and/or paving to meet either the existing or future traffic demand. Consider adding 4 foot wide paved shoulders to better accommodate pedestrians and bicyclists on roadways below marked with a *.

- Lewis Road – widening only
- *Old Pullman Road (US 95 to Foothill Road)
- *Mill Road (Robinson Park Road to Lenville Road) – widening only
- *Old Pullman Road (Moscow city limits to Washington state line) – widening only
- *Mountain View Road (Moscow city limits to Idlers Rest Road) – widening only
- *Palouse River Drive (Moscow city limits to Lenville Road) – widening only
- *Polk Street Extension (Moscow city limits to Foothill Road) - widening and paving
- Sand Road (Moscow city limits to Washington state line) – widening only

FUNCTIONAL CLASSIFICATION CHANGES AND RELATED IMPROVEMENTS

A component of a transportation plan is to identify roadways in which the function and/or use of the roadway has changed and warrants consideration of a change in the functional classification of the roadway. Figure 4-1 illustrates the proposed functional classification system. The following roadways have been identified to be considered for changes in functional classification.

- **Flannigan Creek Road/Four Mile Road (US 95 to SH 6)**

The Flannigan Creek Road/Four Mile Road corridor is currently classified as a minor collector, and is one of the highest volume roads in the NLCHD. It is also one of the most critical links in

the transportation system, providing an alternate route to US 95 between Viola and Potlatch, and serving numerous rural homes in the steadily growing area to the north of Moscow. Because of this, the following improvements are recommended:

- Upgrade the roadway to major collector classification and widen to at least 26 feet of travel width to meet the NLCHD standard for major collectors.
- Pave the remaining unpaved section between Davis Road and Short Lane.
- Conduct speed studies along the roadway and post appropriate speed limits based on the results of those studies.

- **Darby Road (Mountain View Road to Robinson Park Road)**

Darby Road is currently an unclassified local road, but provides a critical connection between the city of Moscow and Robinson Park Road. Improvements to Darby Road would help alleviate some of the volume on Robinson Park Road, because drivers from the north end of Moscow would utilize Darby Road as the main connection to areas east of Moscow. Based on these observations, the following improvements are recommended:

- Classify the roadway as a minor collector and widen to at least 26 feet of travel width to meet the NLCHD standard for minor collectors.
- Consider adding 4 foot wide shoulders to accommodate increased use by pedestrians and bicyclists.
- Pave the unpaved section of the roadway.

- **Driscoll Ridge Road/Lamb Road (SH 8 to SH 99)**

The Driscoll Ridge Road/Lamb Road corridor is currently classified as a minor collector, functioning in large part as a cut-off between SH 8 and SH 99. It is not expected that driver travel patterns will change, therefore the assumption is that a large number of vehicles will continue to use this corridor as a cut-off to decrease travel time and to bypass the city of Troy. Based on this assumption, the following improvement is recommended:

- Upgrade the roadway to major collector classification and widen to at least 26 feet of travel width to meet the standard for collector facilities.

- **Lenville Road (SH 8 to SLHD boundary)**

Lenville Road is currently classified as a minor collector, and functions as a critical connection between the city of Moscow, the Genesee-Troy Road, and the city of Juliaetta. In addition, Lenville Road could become a more popular route for bicyclists since it forms part of a loop from Moscow through Juliaetta and Genesee. Also, it should be noted that in the 2004 SLHD Transportation Plan, Lenville Road was recommended for re-classification as a major collector within the SLHD. Based on these observations, the following improvement is recommended in addition to the safety improvement described previously:

- Upgrade the roadway to a major collector classification and widen to at least 26 feet of travel width to meet the NLCHD standard for major collectors

- **Saddle Ridge Road/Nearing Road (Lewis Road to Four Mile Road)**

Saddle Ridge Road is currently an unclassified local road carrying a moderate amount of traffic to developing areas north of the city of Moscow. Saddle Ridge Road exists as an unpaved roadway with a width varying from 18 to 20 feet. The majority of Saddle Ridge Road traverses through

mountainous terrain so there is very limited sight distance at a number of curves along the roadway, along with a number of trees that are “pinching” the roadway. Improving Saddle Ridge Road would serve to provide a reasonable alternative route to US 95 between the city of Moscow and the city of Potlatch (Foothill Road/Saddle Ridge Road/Four Mile Road/Flannigan Creek Road corridor). Based on these observations, the following improvements are recommended:

- Classify the roadway as a minor collector and widen to at least 26 feet of travel width to meet the NLCHD standard for minor collectors.
- Pave the entire length of the roadway.
- Trim foliage obstructing sight distance at curves along the roadway.
- Remove trees near the shoulder that are “pinching” the roadway.
- Add centerline striping and delineators to clearly distinguish travel lanes.
- Add appropriate warning signage at the sharp curves, and stop/yield signage at major intersections.

- **Mill Road (Robinson Park Road to Lenville Road)**

Mill Road is currently an unclassified local road, but is a heavily traveled link between Robinson Park Road (currently classified as a major collector) and Lenville Road (currently classified as a minor collector). The following improvements are recommended in addition to the safety improvements described previously:

- Classify the roadway as a minor collector and widen to at least 26 feet of travel width to meet the NLCHD standard for minor collectors.

- **Brood Road to Wallen Road to Teare Road (Randall Flat Road to SH 8)**

Brood Road and Teare Road are both currently unclassified local roads. Classification of these two roadways as a minor collector should only occur following a study that determines whether there would be a significant amount of traffic using these roadways to travel between Randall Flat Road and SH 8. If the decision is made to classify these roadways as a minor collector, they must be classified concurrently with one another. Improvements to these roadways would create an alternate route to Robinson Park Road (illustrated in Figure 4-2) to help alleviate the heavy volume on Robinson Park Road. Based on this, the following is recommended:

- Consider classifying both Brood Road, Teare Road, and the section of Wallen Road between the two as minor collectors and widen to at least 26 feet of travel width to meet the NLCHD standard for minor collectors.

- **Foothill Road (US 95 to Lewis Road)**

Foothill Road is currently an unclassified local road carrying a moderate amount of traffic to both recreational areas and steadily growing rural residential areas to the north of the city of Moscow. A number of observations were made about poor sight distance at several curves along the roadway caused by overgrown vegetation and steep banks near the edge of the roadway. In addition, a significant amount of deep, loose gravel is causing hazardous roadway surface conditions in certain sections along the roadway. Improving Foothill Road (along with improvements to Lewis Road) would serve to provide a reasonable alternative route in the event of restrictions or road closures on the adjacent section of US 95. Based on these observations, the following improvements are recommended:

- Classify Foothill Road as a minor collector and widen to at least 26 feet of travel width to meet the NLCHD standard for minor collectors.
- Cut back embankments, widen shoulders at locations with steep recovery slopes, and trim foliage along curves with significant sight distance problems.
- Conduct an evaluation of the roadway surface conditions to identify areas needing magnesium-chloride treatment, or areas needing more frequent grading to cut down on corrugation in the roadway.

- **Other Roadways to Consider for Functional Classification Changes**

The roadways listed below were identified as roadways that may be considered for a change in functional classification, but are lower in priority than the roadways mentioned above. Should any of the roadways listed below be upgraded to minor collector classification, they would be required to be widened to at least 26 feet of travel width to meet the NLCHD standard for minor collectors.

- Roadways in Close Proximity to the City of Moscow

The following roadways are adjacent to the City of Moscow area of impact and all of them transition from an NLCHD facility to a City of Moscow facility at some point along the length of the roadway. Therefore each of these roadways should be considered for an upgrade in functional classification (minor collector) that would mirror the current classification of the roadway within the Moscow city limits (especially considering that many of these roads may be annexed into the city at some point in the future).

- Lewis Road (US 95 to Foothill Road)
- Old Pullman Highway (Moscow city limits to Washington state line)
- Sand Road (Moscow city limits to Washington state line)
- Polk Street Extension (Moscow city limits to Foothill Road)
- Palouse River Drive (Moscow city limits to Lenville Road)

- Princeton Area Roadways

The following roadways are located in the vicinity of Princeton, a developing area of the NLCHD that may see a noticeable increase in traffic if several potential developments are constructed in the future. Should development occur, it would be important for the NLCHD and developers to work together to ensure that necessary roadway improvements are planned, funded, and implemented as needed in order to have multiple avenues for funding of these improvements. It is recommended that the NLCHD consider these roadways for a functional classification upgrade (minor collector):

- Bear Creek Road (SH 6 to SH 9)
- Gold Hill Road (SH6 to T Road)

BICYCLE AND PEDESTRIAN PROJECTS

The focus of the North Latah County Highway District responsibility has been in providing an adequate system for motor vehicles. Bicycle and pedestrian use of county roads in some areas has been a concern for the highway district to the point of considering discouraging alternate modes of transportation on the county roads for safety reasons. But as the population grows in the Cities of Latah County and as

residential density increases in the county immediately surrounding the Cities, the county roads are being utilized by bicycle riders and pedestrians for both transportation and recreation. Federal government policy in recent years has required that federally funded projects accommodate alternate modes of transportation. Transportation plans must include bicycle and pedestrian systems.

Conflicts between pedestrian and bicycle use and vehicular use have been noted by the public. Many of these roadways are the same roadways with higher vehicle traffic. As suggested in earlier portions of this section, many of those roadways should be widened to include wider paved shoulders. Rather than apply the wider standard to all of the minor and major collector roadways in the system, those segments currently experiencing conflicts, or that are predicted to experience them within the 20 year horizon should be targeted. Limiting the widened sections to these segments reduces the burden to the highway district for long-term maintenance, but improves the multi-modal opportunities for county residents where they need it most.

Figure 4-3 illustrates the roadway segments where widened, paved shoulders would be a benefit for both improved safety of existing conflicts and enhancing the existing system for use by multi modes. The roadway segments are:

Near Moscow:

- Robinson Park Road from Moscow City limits to Darby Road intersection
- Darby Road from Moscow city limits to Robinson Park Road intersection
- Mountain View Road from Moscow city limits to Idlers Rest Road intersection
- Idlers Rest Road between Foothill Road and Idlers Rest Road
- Foothill Road between Polk Extension and Idlers Rest Road
- Polk Extension from the Moscow city limits to Foothill Road
- Trail Road from Moscow city limits to Mountain View Road.
- Moscow Mountain Road from Mountain View Road to Frink Road
- Frink Road between Moscow Mountain Road and Crumarine Loop
- Lyon Road from Crumarine Road to Darby Road

All of these segments near Moscow are already classified as major collectors, or proposed for an upgrade in classification to at least minor collectors, except for Trail Road.

Near Princeton:

- Hatter Creek Road from SH 6 to West Hatter Creek Road

Hatter Creek Road is classified as a minor collector.

As the roads are upgraded to the standards proposed in this plan, the addition of pavement, widened travel lanes, shoulders, and less steep ditches will increase the safety of bicycles and pedestrians. However, with the growing population and increased emphasis on biking and walking, there are a few key routes where additional accommodations for these alternate modes of transportation should be made.

One alternative discussed required that the County Parks and Recreation Department build separated multi-use paths in key areas where conflicts are noted. Those projects would be county park projects,

maintained by the county parks. The highway district would issue statements of support for funding applications.

Another alternative is to not improve the roadway cross section at all in order to discourage use by pedestrians and bicycles and encourage the use of the Latah Trail instead. This alternative was dismissed as an inadequate response.

FIGURE 4-2

FIGURE 4-3

PROJECTS IDENTIFIED BY PUBLIC CONCERNS

General comments made by the public listed in Section 2, subsection Public Concerns are consistent with many of the highway district's stated concerns. Specific safety and capacity projects recommended in this section contain many of the same elements identified as desirable by the public, such as posting speed limit signs, warning signage, road widening and consistency, shoulders, and striping. The end result of the planning process will provide a recommended priority for specific roadway improvement projects incorporating many of the elements desired by the public. Several comments were received urging the highway district to develop consistent criteria for prioritizing roadway upgrades. This document will identify priority projects and recommend criteria to be used for future roadway upgrades.

The public noted the desire for a few improved alternate and connecting routes that do not currently exist. Looped connections at the end of dead end roads would help provide increased access for fire control and emergency response. Representatives of the city of Moscow also recommended the highway district consider connections at dead end county roads in an effort to plan for and secure right-of-ways ahead of future development. Connections identified in planning documents notify future developers where significant right-of-way dedication will be expected. The most significant alternate route being considered within the highway district boundary is the Moscow Ring Road discussed in Sections 2 and 3. The final adopted cross section standard and route is unknown. It has been presented as a limited access roadway. The access points proposed by the Moscow Transportation Commission are shown in Fig. 3-2. It is likely that the roads identified in this plan for major and minor collector status would become allowed access points on the ring road system. This limited access may result in the need for frontage roads on each side of the ring road in between the minor and major collectors. The regional community has entered into the beginning stages of discussion about ring road jurisdictional issues. The ring road may be built with federal-aid funding, or by developers as development moves into the proposed route. Land immediately outside of the ring road route may remain in the county. Right-of-way dedication for frontage roads should be considered as development takes place in the county. Improvements to county roads inside of the proposed ring road route should not prohibit future upgrades to city of Moscow road standards. Road standards recommended in this plan for collectors and local roads identify a right-of-way width consistent with city of Moscow right-of-way widths for compatible type roadways.

Alternate routes suggested by public input were discussed by the Advisory Committee. The extent of improvements required to make viable, year-round access to Farmington via Woody Grade was a very low priority in consideration of the frequency with which that route would be used as indicated by the Sheriff's Department. Potential year-round connections between Troy and Princeton/Potlatch were considered, and it was determined by the Advisory Committee that although the connection is desirable, it would be nearly impossible to construct and maintain a year-round road.

The public addressed concerns about conflicts between pedestrians, bicycles, and cars. The majority of the areas identified with conflicts were around Moscow. Existing roadway conditions with no shoulders and very steep ditches immediately adjacent to the vehicle travel way makes the pedestrian or bicyclist more vulnerable, especially when two vehicles pass by at the same time. Roadway upgrade to the proposed standard with two-foot shoulders on both sides and less steep slopes to the bottom of the drainage ditches will go a long way to reducing the vulnerability of pedestrians and bicycles. However, as the population of Moscow continues to grow and becomes more dense within the city limits, conflicts on the county roads will increase. This prompts the recommendation of four-foot wide shoulders for specific roadway segments where increasing use by pedestrians and bicyclists is anticipated. Funding methods to improve county roadways will most likely preclude an improvement project solely on the basis of pedestrian/bicycle accommodations. The Latah County Parks and Recreation Department may

be a more appropriate sponsor for a trail project solely for the purposes of providing pedestrian and bicycle transportation. Funding is more likely available for improvements needed for a variety of reasons, including accommodation of pedestrian/bicycle use. Roadway segments requiring multi-purpose improvements including pedestrian/bicycle accommodation are listed below. These segments are listed under Safety Projects.

- Robinson Park Road between the Moscow city limits to Darby Road
- Lenville Road between SH 8 and Genesee-Troy Road
- Mill Road between Robinson Park Road and Lenville Road
- Moscow Mountain Road between Mountain View Road and Frink Road
- Mix Road between Moscow city Limits and US Hwy. 95.

Capacity projects listed earlier in this section recommend widening of key roadway segments.

- Frink Road/Crumarine Road/Lyon Road between Moscow Mountain Road and Robinson Park Road
- Genesee-Troy Road
- Hatter Creek Road (SH 6 to Morris Road)
- Old Pullman Road
- Polk Street Extension
- Darby Road between Mountain View Road and Robinson Park Road
- Foothill Road between US 95 and Idlers Rest Road

Additional segments of road recommended for widened shoulders do not coincide with specifically listed roadway safety and/or capacity projects. Those segments are:

- Mountain View Road between the Moscow city limits to Idlers Rest Road
- Idlers Rest Road between Foothill Road and Mountain View Road
- Trail Road between Moscow city limits and Mountain View Road

These segments shown as a cohesive system are shown in Figure 4-3

ROADWAY CONDITION IMPROVEMENTS

In conjunction with public concerns and NLCHD identified priorities, when and how to improve existing roadways is a critical element of the NLCHD's regular determination of allocating equipment, personnel, monies, and other resources to the existing roads. For example, the road surface inventory completed as part of the development of this plan identified several existing road segments that either had poor cross-sections or drainage problems. Such deficiencies in either of these elements indicate areas of roadway that typically require either reconstruction or extraordinary maintenance procedures. The roadway segments identified as "poor" are as follows.

- Mix Road
- Saddle Ridge Road
- Old Pullman Road

At first glance, these roadway segments might appear as high priorities for immediate repair by the NLCHD. However, this list is not inclusive of roads that need to be upgraded to a width standard or to improve safety. That is, this list only identifies a poor condition at the existing width. In addition, this list does not identify the amount and type of traffic using these roadway segments, nor does it identify the connectivity of key locations in the NLCHD provided by these segments. This list is simply the existing

road segments that were in poor condition (i.e. heavy rutting and poor cross-slope) at the time the survey was completed. In short, without considering many factors in determining the allocation of NLCHD resources, even good data may lead to poor decisions. The next section presents criteria for determining how to prioritize major roadway improvements and upgrades.

Roadway Upgrade Criteria

One of the most difficult decisions to make is which roads should be upgraded first given limited resources. In an effort to make this determination, it is recommended that a specific process be developed and consistently applied. The following is a recommended framework for developing improvement criteria. The roadway standards and implementation procedures should be considered for adoption into NLCHD policies.

Improvement Criteria

New roadways accepted by the NLCHD will be constructed to one of the adopted standards. In cases in which existing roadways may need to be upgraded due to changes in travel patterns, traffic growth, or development, criteria was developed to assist in determining the level of improvement that may be needed. Development of criteria for upgrading roadways must include a number of factors, including roadway classification, traffic safety, traffic volume, and maintenance costs. The following are recommended criteria for upgrading existing roadways within NLCHD.

Criteria 1: Roadway connectivity and classification

Connectivity and classification both play an important role in determining improvement priorities. Roadways that provide system-wide connectivity or are classified as major collectors or minor collectors should be considered priorities for improvements when compared to local roads. Proposed changes to the functional classification are shown in Figure 4-1. Within the NLCHD, the following should be considered when evaluating roadway connectivity and classification:

- **Single-Lane Local Roads:** Should provide the lowest level of connectivity such as access to one or more residential properties. Single-lane roads should not typically be used for critical links from a sub-area of the highway district to the collector street system, or between activity centers.
- **Narrow 2-lane (Three-Track) Unpaved Roads:** Should be used to access many properties or a sub-area of the highway district and connect to the collector system.
- **Two-Lane Unpaved Roads:** Should be used to access a sub-area of the highway district, to connect to the collector system, or as low volume major roadways connecting smaller activity centers within the highway district.
- **Two-Lane Paved Roads:** Should be used for major roadways connecting the activity centers within the highway district. In the long term, all major collectors and minor collectors should be paved with at least two lanes.

Criteria 2: Traffic Safety

If a pattern of crashes or an unsafe design indicates a safety problem, priority should be given to that location or roadway.

Criteria 3: Daily Traffic Volume

The criteria in Table 4-1 should be used as a guideline for determining when traffic volumes may dictate the need to upgrade a roadway.

**Table 4-1
 Roadway Upgrade Volume Criteria**

Roadway Type	Maximum Recommended Volume
One Lane (2 Track) Unpaved	<50 ADT
One Lane (3-Track) Unpaved	<100 ADT
Two Lane (4-Track) Unpaved – Minor	<250 ADT
Two Lane (4-Track) Unpaved – Major	<400 ADT
Narrow Two Lane Paved (< 20 ft.)	<400 ADT
Two Lane Paved Low Vol.	<600 ADT
Two Lane Paved Mid Vol. – Collector	<1,500 ADT
Two Lane Paved High Vol. – Collector	>1,500 ADT

Criteria 4: Existing Roadway Condition:

The existing condition of the roadway in terms of surface condition and compliance with existing design standards should be evaluated to provide a measure of the roadway’s remaining service life. When considering an upgrade from an unpaved to a paved surface, a study is needed to determine which type of surface is needed based on cost effectiveness over the long-term (i.e. remain unpaved, magnesium chloride treatment, asphalt).

Criteria 5: Maintenance Costs:

Maintenance costs should be reviewed to determine if improvement of the roadway will result in lower maintenance costs in the long term.

Roadway Standards

Proposed roadway typical section standards for new construction have been developed as part of this plan. These proposed standards attempt to accommodate the American Association of State Highway and Transportation Officials (AASHTO) recommended design methods, ITD standards based on functional classification, actual construction practices already utilized by NLCHD personnel, and the proposed roadway improvement criteria as previously described. The proposed roadway typical section standards are:

1. 24’ Asphalt Local Road (see Figure 4-4)
2. 26’ Asphalt Collector Road (see Figure 4-5)
3. 26’ Asphalt Paved with 4 ft. Shoulder Typical Section 4’ Shoulders (see Figure 4-6)

Table 4-1 illustrates an upgrade criteria based on volume to allow for a feasible progression of a roadway from an existing gravel road to a paved road accommodating increasing capacity and service requirements of that roadway. That is, developing the road segment from one typical section to the next should be a logical progression. Such a progression, in reality, may not be feasible for all segments of any roadway. For example, physical features such as creeks, large rock outcrops, steep side slopes, or

existing utilities may make a progression step that involves widening very difficult. However the implementation of the proposed improvement criteria, in conjunction with a clearly defined progression of improvements, will help the NLCHD identify, plan for, and explain future roadway improvements.

Typical sections Figures 4-4, 4-5, and 4-6 illustrate new construction requirements for roadways dependent upon level of service requirements. Specifically, the 24-ft. asphalt paved road section would apply to local roads. The 26-ft. asphalt paved road section would apply to collectors and the 26-ft. asphalt paved road section with 4' shoulders would apply to collectors with close proximity to residential centers.

Figure 4-4

Figure 4-5
26 Ft. Asphalt Collector Road Typical Section

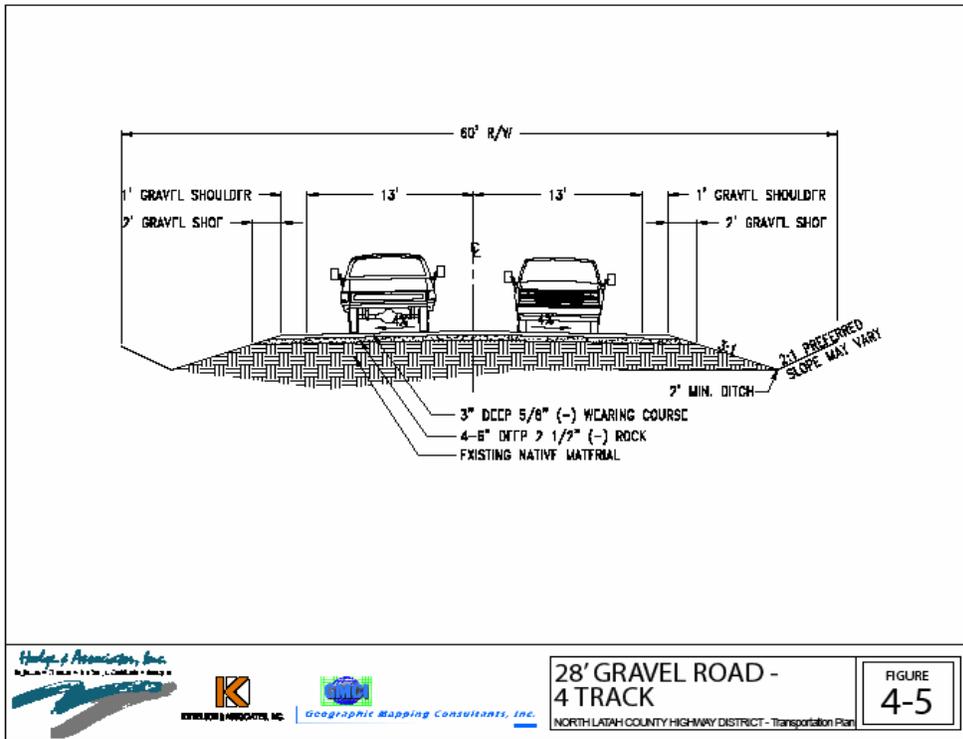


Figure 4-6
26 Ft. Asphalt Collector Road with 4 ft. Shoulders Typical Section

Implementation Procedures

Latah County adopted a new Land Use Ordinance in August 2006. It reiterates the highway district's authority to approve new roadways and accesses, and require construction according to highway district standards. Existing construction standards are outdated and not appropriate for current construction. Implementation of the proposed roadway standards and improvement criteria should be expedited to facilitate appropriate requirements and approvals for impending development applications. Implementation requires several actions of the NLCHD commissioners and area supervisors.

First, the commissioners must accept both the improvement criteria and the roadway typical sections, or something similar, as standards for the NLCHD.

Second, the commissioners and area supervisors must evaluate the existing road segments of NLCHD in accordance with the accepted improvement criteria. This evaluation will identify which typical section each roadway segment should meet. From this evaluation, the highway district should be able to identify roadway segments that do not meet the typical section standard associated with that particular segment's classification. This evaluation has already been done by the consulting team for key roadway segments as listed in this section and in Section 5. The commissioners and area supervisors will conduct this evaluation for lower priority roads as they consider maintenance and upgrades on roads other than those listed in Section 5.

Third, the highway district should implement an on-going procedure to gather public input on a regular basis, at least every five years. The NLCHD should maintain periodic contact with the advisory committee members, and gather input on public concerns related to the district's activities.

Fourth, evaluate this information to determine appropriate NLCHD activities for both the immediate fiscal year and longer-term improvements. For example, this evaluation should identify roadway segments that can be tabbed for improvement to the next level in the roadway improvement progression. The NLCHD should be able to utilize better methods of allocating NLCHD resources, and justify maintenance and improvement plans with the patrons of the highway district in an efficient manner.

MAINTENANCE PROCEDURES

Maintaining existing roadways is the NLCHD's primary function. Discussion of maintenance procedures, both in-place or proposed, were prevalent in discussions regarding safety issues, capacity issues, public concerns, capital improvements, available funding, and historic NLCHD expenditures, just to name a few. A detailed evaluation of existing NLCHD maintenance procedures and equipment was not in the scope of this plan. However, a preliminary review of existing maintenance procedures was completed based on discussions with NLCHD personnel, observations of existing roadway conditions, and public opinions.

This review found that the NLCHD is already practicing good maintenance procedures and in general, serves its patrons well. With that in mind, the intent of examining how to improve upon roadway maintenance became directed at some specific issues identified by NLCHD personnel, and on the general concept of extending the capabilities of NLCHD roadways within the context of existing expenditures. The following is a summary of those issues.

Paved Roads

The NLCHD's current paved road maintenance procedures, including patching on an as-needed basis, as well as crack sealing and seal-coating on an approximate 5-year rotation, are excellent. Current expenditures allow for approximately 30 - 40 miles of crack seal and seal coating per year. In addition to maintaining existing paved road the highway district has been able to convert approximately 2 miles of gravel road to pavement each year. Proposed improvements to these procedures may require the

reallocation of current assets appropriate to the district needs. Reallocation should not limit the current level of repair and maintenance activities.

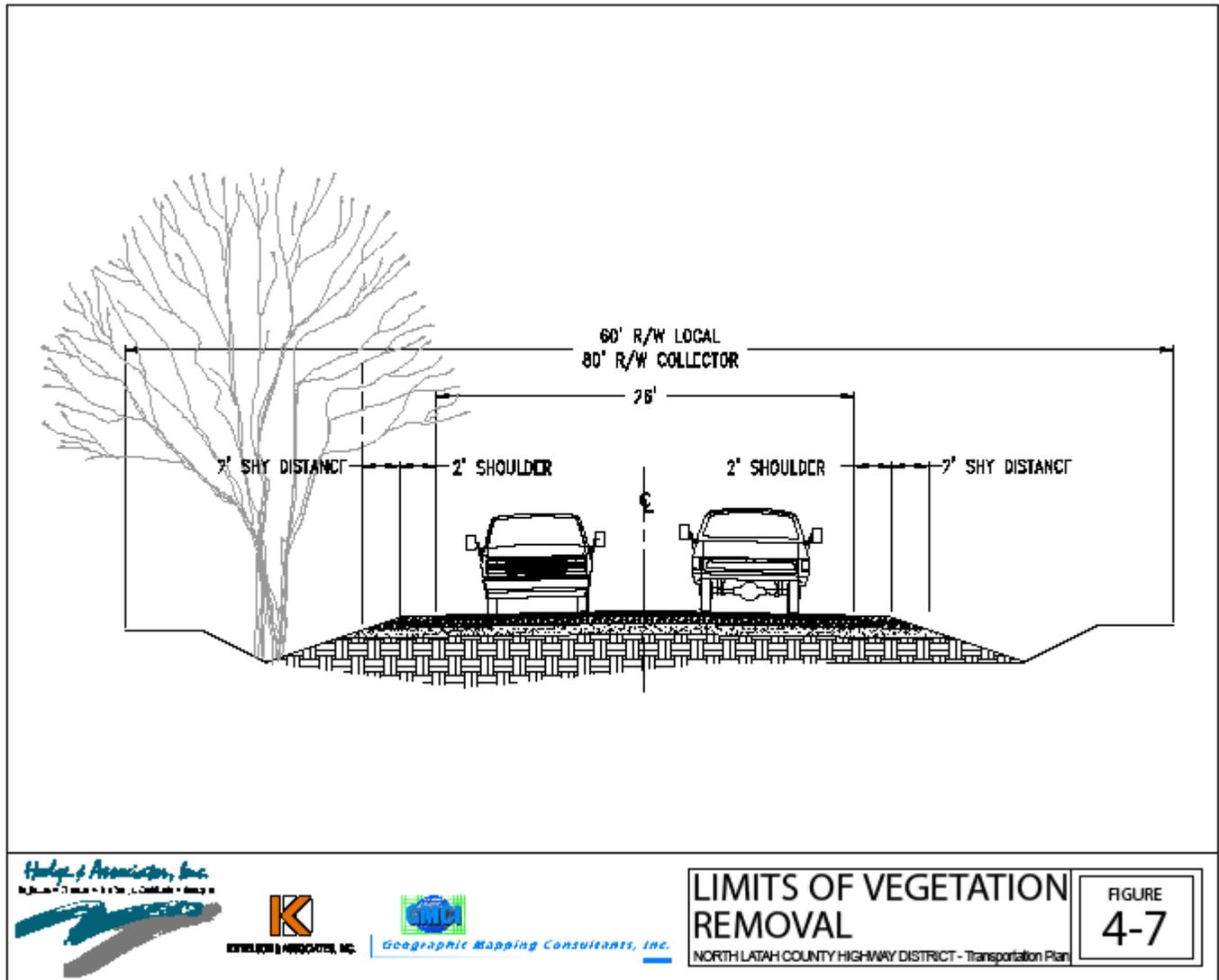
Dirt Roads

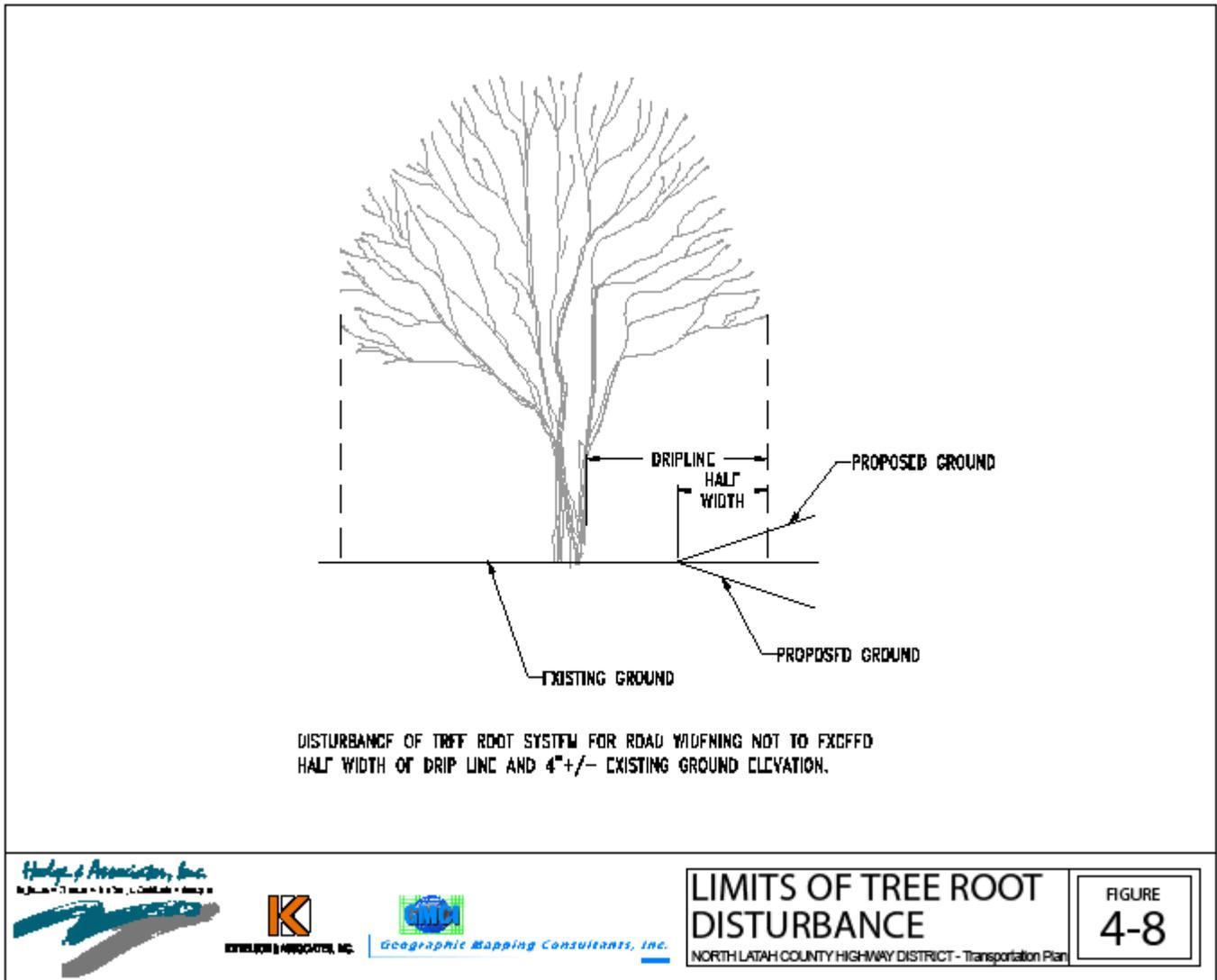
One maintenance issue pertains to the minimum maintenance requirements associated with improved roads. More specifically, assessing allocations of resources associated with maintenance of dirt roads. Improved roads by definition are simply roads that are graded and drained. "Graded and drained" indicates only a general reference to a definitive cross-slope, drainage ditches, and cut or fill slopes beyond the ditches; Specific definitions of actual cross-slope grade, ditch construction, and cut or fill slope construction is left to what is acceptable to both the NLCHD and its patrons. Very low and seasonal traffic volumes as well as soil types that create very unstable surfaces in wet conditions lend credence to reducing maintenance activities on the dirt roads of NLCHD. One approach might be to clear and grade dirt roads only once a year, as close to identified heavy use of these roads as possible. Most of these dirt roads serve farming activities that are at their peak in the spring and summer, as soon as they become accessible. NLCHD might also consider minor clearing and grading of the dirt roads as early as possible, and then leaving these roads without maintenance for the rest of the year. By repairing only major damage to the roadway section, and mowing grasses in the travel area, the roads may become more stable. Clearly, well established roadway cross-slopes and ditch sections are imperative for such suggestions to be successful. The highway district should also consider winter closures of these dirt roads, with or without the implementation of reduced maintenance activities, if the roads are eligible for such closures. The highway district will have to employ adequate public notice procedures to implement such closures.

As previously mentioned, acceptance of such revised dirt road maintenance procedures has to come from both NLCHD personnel and the patrons of the NLCHD utilizing these dirt roads.

Roadside Vegetation

Another maintenance item of interest to the NLCHD personnel regarded vegetation encroaching onto the travel way and in the ditches of gravel roads. Specifically, the concern is centered on the loss of aggregate material associated with removing this vegetation from the roadway, driver roadside intimidation, and reduction of site distance. Driver roadside intimidation has a compounding affect on several issues, including safety, traffic capacity, aggregate loss, and maintenance procedures. Eliminating roadside vegetation is probably not possible, nor completely desirable (i.e. non-restricting vegetation in ditches is valuable to the environment as a treatment for roadway runoff), and certainly not economically feasible. However, particular attention to certain maintenance procedures on the gravel road will help to minimize the detrimental effects of roadside vegetation. Namely, providing a roadway cross-section with good ditches that does not discourage motorists from utilizing the full width of the roadway serves to minimize the growth of roadside vegetation. The NLCHD may consider using a sterilant along the roadside edges as an additional measure in minimizing roadside vegetation. Refer to Figures 4-7 and 4-8.





Gravel Roads

Everything the NLCHD does in regards to maintaining existing gravel roads should focus on reducing the effort needed to keep the gravel roads in good shape for as long as possible, in order to reduce the costs of that maintenance. More effort here translates into fewer resources, including personnel, equipment, and assets available for maintenance of other NLCHD facilities. Certain practices, if completed properly, have been proven to increase the amount of time required between necessary maintenance. Such practices include cross slope grading, the specific moisture content of roadway material when grading, proper compaction when grading, application of dust suppressants/base stabilizers, and aggregate specifications. NLCHD personnel should consider these practices for inclusion in their regular maintenance activities.

- ***Cross-Slope Grading***

Cross-slope on gravel roads is essential for drainage of surface water. Cross-slopes between 3% and 6% are desirable, with 4% preferred in most cases, based on acceptable drainage, driver comfort, and the desire to maintain four-track gravel roadways. A cross-slope that is too flat may not promote proper shedding of surface water, and does not discourage drivers from driving toward the middle of the roadway. A cross-slope of 4% provides adequate shedding of surface water, and discourages drivers from driving their vehicles near the change of cross-slope (an 8% grade break) in the middle of the roadway.

In general, good cross-slopes were observed on NLCHD roads. However, some varying cross-slopes were observed, and some parabolic cross-sections were also observed. Parabolic sections indicate overuse of the middle of the roadway, creating a nearly flat cross-slope for a significant portion of the roadway section in the middle of the road. The NLCHD personnel are implementing the use of slope indicators in the grading equipment that will ensure cross-slopes as close to 4% as possible.

During grading it is also important to have the finished centerline consistently in the center of the roadway to maintain consistent track separation. An inconsistent centerline encourages traffic to crowd or cross over it, reducing the number of tracks in a roadway, and increasing the need for maintenance. This is achieved through operator experience and awareness.

- ***Moisture Content during Blading***

Moisture content is probably the most critical variable associated with grading procedures on gravel roads. Current NLCHD grading practices provide evidence of the importance of moisture content not necessarily by policy or standards, but by the history of actual grading procedures. All gravel roads are graded in the spring of the year when moisture content is optimum. Water is usually applied to roads that require grading during dry conditions.

A key fact to recognize is that grading activities provide for the best overall roadway surface when the moisture content of the road surface aggregate mix is at, or near, optimum moisture content. Convenient water sources for the outlying areas between Moscow and Troy would extend the timing of grading activities in these areas. Optimum moisture content will vary from mix to mix, and should be determined for the actual material on the ground. Therefore, a consistent road surface aggregate mix, associated with a near constant optimum moisture content, is important to establish. NLCHD should also consider increased use of dust control/stabilization treatments for high maintenance/high volume roads. Use of a water truck should be seriously considered.

- ***Aggregate Specifications for Gravel Roads***

For gravel roads, the importance of proper aggregate gradation ensuring good compaction and binding (apparent cohesion) of aggregate material is easily overlooked in the overall picture of roadway maintenance. All rock is not the same. A uniformly graded aggregate mix without adequate fines (that material passing the No. 200 sieve) doesn't lie down (relative compaction, or settling, associated with minimally compacted gravel roads) well after blading. The pebbles become loose, and vehicles throw them off the road, accelerating aggregate loss and subsequent rutting and/or corrugations, in addition to vehicle damage attributed to these flying pebbles. On the other hand, an aggregate mix with too many fines can get slick and muddy in wet conditions, and increase the likelihood of dust problems in dry conditions.

In general, observed roadway conditions (i.e. minimal corrugation and dust, and aggregate inspection) indicate the NLCHD has an adequate gradation associated with its surface aggregate. Specifications are given to contract rock crushers that provide a satisfactory aggregate mix. One practice NLCHD should consider implementing is testing actual roadway aggregate gradation in place. Existing soil conditions and handling of roadway aggregate may result in gradations much different than the specifications provided to rock crushers. For guidance, a good surface aggregate should have 12-15% fines with at least 75% fractured faces for the entire gradation. The table below outlines a recommended aggregate gradation for gravel roads in NLCHD.

Table 4-2
Aggregate Specifications for Gravel Roads

<u>Sieve:</u>	<u>% Passing:</u>
1"	95-100
¾"	80-90
½"	64-85
No. 4	42-70
No. 8	37-65
No. 40	13-35
No. 200	12-15
Plasticity Index	4-15

Compaction

One aspect of gravel road construction often overlooked is proper compaction. A combination of proper aggregate gradation, moisture content, and compaction equally contribute to the construction and maintenance of a good gravel road surface. Proper compaction helps to bind fines at the top of the roadway creating a tighter and smoother surface. In addition, this compaction also helps to embed larger aggregate, preventing aggregate fly out, and thereby resulting in a more stable roadway surface that minimizes aggregate loss.

Compaction should be completed in conjunction with proper blading procedures. The most effective compaction comes from the use of a vibratory roller. However, the use of a vibratory roller obviously requires additional personnel hours and equipment hours on the roadway. Another effective means of compaction is the use of grader-mounted rollers. Grader-mounted rollers can efficiently combine placing fresh aggregate, blading, and compaction procedures when vibratory rollers and/or extra personnel are not available.

Gravel Road Dust Control/Base Stabilization

All gravel roads will produce dust. This study found that dust alone is one primary concern of the NLCHD and its patrons. How much dust is produced from any given road varies greatly based largely on the quality and gradation of the roadway aggregate mix and the amount of moisture available. The semi-arid/arid climate of the NLCHD sees prolonged periods of dry weather that equates to dust. Another aspect of dust sometimes overlooked is how much aggregate material is lost due to dust. A typical gravel road in a semi-arid region such the NLCHD will lose up to two and one-half (2-½) tons of gravel per mile per year for each vehicle traveled on the road each day (ADT). One mile of gravel road with an ADT of 200 vehicles loses \$7,500 of aggregate per mile per year (assuming a placed aggregate cost of \$15 per ton).

By using a dust suppressant/base stabilizer, the same roads will lose only about one ton of gravel over the --a savings of \$4,500. In addition, current use of dust suppressants, on the average, shows an increase in the time between maintenance required to be around seven times that required without dust suppressants. If a road required maintenance once every two weeks without the use of a dust suppressant, this same road is likely to only require maintenance once every 14 weeks with the use of a dust suppressant. Current costs of applying the dust suppressant magnesium chloride in the NLCHD area are around \$100 per ton of suppressant. This equates to approximately \$4,400 per mile of road on a four-track gravel road. These numbers essentially illustrate that on any NLCHD gravel road with an ADT of over 200 vehicles, material costs associated with the use of a suppressant (aggregate plus MgCl) will remain the same as those materials costs without the use of a suppressant (aggregate alone). However, the use of the suppressant will reduce the costs of the personnel and equipment associated with maintaining this mile of road by one-seventh (1/7).

Virtually all methods of dust control utilizing suppressants require periodic treatment. The cost of such treatments can be prohibitive on roads where traffic volume is low. On the other hand, on roads where traffic volumes are higher, the cost of dust control can more than pay for itself in the benefit of reduced material loss alone, not to mention the reduced need for maintenance activities.

POLICY CONSIDERATIONS

Public and agency comments revealed the desire for consistent application of policies pertaining to road closures, posting load limits and project-by-project maintenance agreements with large-scale commercial hauling operations.

Road Closures

Road closures are associated with large capital improvement projects (bridges and paving new roadway segments for example) and some smaller maintenance projects (chip sealing and replacement of culverts for example). A road closure requires a detour utilizing other roadways around the project whereas smaller projects may merely delay traffic while the roadway section is blocked temporarily during the construction process. Closures requiring a detour are the major concern although the Highway District staff said patrons will express frustration if they are merely delayed. Each area supervisor handles notification differently depending on the project. For some large projects, notices have been placed in the local newspaper. Some emergency projects do not allow any notification. Alternatives discussed included mailing notification to Latah County residents, placing an announcement in the local newspaper and placing signage well in advance of project construction (generally two weeks in advance) at both ends of the affected roadway segment (typically at the nearest intersections on either side of the work). The consultant and Highway District staff determined that posting signs at each end of the roadway segment in advance of the start of the project was the most effective way to notify the patrons affected by the closure or delay. Notice should only be posted if the project will cause significant delays (more than one-half hour) or will close the road and require a detour.

Load Limit Posting

Several agencies and representatives from private logging industries expressed a desire for load limit changes to be clear and timely with notification to current logging operations. North Latah County Highway District staff post roads when weather conditions create conditions where heavy loads will damage the roads. In contrast Whitman County, Washington posts load limits on County roads based on a calendar date rather than weather conditions. Whitman County roads are often closed when Latah County roads remain open. Although it is frustrating for hauling operations to have load limits placed without prior warning, the Highway District is providing increased customer service to it's patrons by posting the roads on an as-needed basis instead of by a calendar date. Weather conditions are not predictable enough to provide adequate advanced notice to the hauling operations. The alternative would be to post on a certain date all roads that have the potential for damage. If the Highway District determines certain roadway segments are closed on a regular basis, then perhaps alternate routes over better roads could be suggested to the hauling operators in those locations. Roads with continuing closure conflicts could be considered for upgrade along with the alternate routes. As problematic roads and alternate routes are identified, they may affect the proposed improvement order.

Coordination of Road Maintenance with Large-scale Hauling Operations

Several agencies and representatives from private logging industries expressed a desire for the Highway District to coordinate maintenance activity with hauling activity on a particular roadway segment. Haulers would like the Highway District to apply dust control just prior to the start of hauling operations to alleviate conflicts between haulers and residents. However, the Highway District is interested in having commercial hauling operations provide their own dust control and repair damage caused by their hauling. The Highway District could consider entering into maintenance agreements with hauling operations. A proposed limit of more than ten truck trips per day for more than seven days could trigger the consideration of entering into a maintenance agreement. The policy does not need to dictate responsibility of each entity but rather require the hauling operation to notify the Highway District of upcoming operations exceeding the proposed limits. Then an agreement between the hauling operation and the Highway District would be negotiated and maintenance operations could be coordinated.

State and Federal agencies claim they are not allowed to spend State and Federal money maintaining or repairing County Roads. However, the Highway District feels the contracts being issued by the agencies for logging on State and Federal land should require the haulers mitigate and repair damage to the County road. Mitigation and repair would be performed by the hauling operation to comply with and satisfy contract requirements. It is recommended the Highway District pursue legal counsel regarding the District's limit of authority in these situations prior to establishing a policy.

REGULATORY AGENCY REQUIREMENTS

Governmental Accounting Standards Board Statement No. 34 (GASB 34)

In June of 1999, the Governmental Accounting Standards Board (GASB) issued Statement No. 34 (GASB 34), Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments, and changed the financial reporting requirements for agencies such as NLCHD significantly. As of June 15, 2005, small-size governments (less than \$10 million in total annual revenues) must provide prospective reporting for all major general infrastructure assets built or improved during the fiscal year, and report these assets in subsequent years using accounting methods outlined by GASB. Such reporting will take significant efforts by small agencies to define appropriate policies, develop consistent methodologies, implement asset management systems, and complete appropriate documentation to comply with these federal requirements. NLCHD has taken a big step towards compliance by initiating the development of this transportation plan.

One of the key components to the Asset Management System as outlined by GASB 34 is an on-going inventory of existing assets ideally linked by a Geographic Information System (GIS). The NLCHD will be able to build upon the inventory of existing conditions compiled to produce this plan. It is possible for the highway district to contract with a local GIS company on an annual basis for a nominal fee to keep the database updated. Another option is for NLCHD personnel to acquire a hand-held device to maintain an updated inventory and condition report. The second option was recently implemented by another local highway district and unfortunately, even with the best efforts and intentions, on-going maintenance of the device and database by the highway district staff was not successful. It is possible that the two adjacent highway districts could combine resources to make the on-going updates more efficient and successful.

The data collected for this transportation plan works in conjunction with a road surface management system. Roadway surface conditions specific to roadway segments within the NLCHD and located with GPS technology (Global Positioning System), can now be maintained and updated as they are identified. The information can be downloaded directly to the newly developed Total Asset Management System software (TAMS). This software, developed with the assistance of LHTAC and the Idaho T2 Center, utilizes the information to analyze existing roadway surface conditions and estimate the remaining service life of each roadway segment. NLCHD purchased a copy of the TAMS software as part of the planning project.

Implementing the use of the database initiated in this inventory process, the on-going inventory of NLCHD assets utilizing GIS and GPS technologies, and TAMS software puts NLCHD well on the way to streamlining their effort to forecast needs, allocate resources, and comply with GASB 34. NLCHD officers now have the responsibility to enact procedures in routine accounting and maintenance practices that take advantage of and enhance the information provided as part of this transportation plan. The on-going accounting and maintenance procedures are the core of the GASB requirements.

North Latah County Highway District Official Map

The most current North Latah County Highway District Official Map was adopted in 1986. Idaho Statutory Code 40-202 requires that the highway district adopt a current official map of the roadway system. Every five years after July 1, 2005, the highway district is required to publish a map showing the general location of all public right-of-ways under its jurisdiction. The map of roadways produced from the GIS data base will be very accurate as to the length and location of the system roadways. The work of this transportation plan includes incorporating held and granted right-of-ways where ownership documentation is readily available from either Latah County or the highway district. This is a major step towards complying with 40-202, subsection 6. A public hearing will be conducted as soon as possible after adoption of this transportation plan to validate the proposed official map and the right-of-ways that may not be currently maintained. Where necessary, incorporations and vacations of right-of-ways may subsequently take place based on input and requests from county property owners. The Idaho State Department of Lands and the United States Forest Service are two agencies that have made informal requests for vacations. Agencies will also have the ability to participate in the final definition of public right-of-ways through the formal process.

Signage and Retroreflectivity

Signs are placed for the purpose of aiding drivers in the safe, efficient navigation of a road any time, day or night. Retroreflectivity is the ability for a surface to return light back to its source. Retroreflectivity is a technology being used to enhance readability displayed in low-light conditions. This technology is being applied to allow traffic control devices to be seen clearly at night. The Federal Highway Administration estimates that up to half of the traffic signs in the United States are beyond their useful life span from a

reflectivity standpoint, and that is one major reason for traffic fatalities. The *Manual for Uniform Traffic Control Devices* (MUTCD) has been revised several times since 1993, upgrading minimum allowable levels of retroreflectivity in traffic control devices. The Idaho Transportation Department currently requires conformance to the 2000 version of the MUTCD. Compliance to the same standard reduces liability for the highway district. This is especially critical since most of the district's roadways and intersections are not illuminated.

Transportation Plan

INTRODUCTION

This section presents a summary of recommended transportation improvements for mitigating existing and projected future transportation system deficiencies. Based on the evaluation of the potential improvements and project alternatives in Section 4, the projects were broken into near-term, mid-term, and long-term projects. Near-term projects are generally those projects that mitigate existing safety deficiencies, or will be needed in the near term to maintain acceptable operations of the transportation system. Mid-term projects are generally projects that are either needed in the near-term but not critical to the safety or operation of the transportation system, or projects that will be needed within the next 10 years. Long-term projects are generally those that are either very costly and therefore must be funded over many years, or those projects that will be needed 10 to 20 years in the future.

ROADWAY IMPROVEMENT PROGRAM

The required transportation improvements in the NLCHD over the next 20+ years, to meet both short- and long-term needs, are listed below in Table 5-1. The project locations are shown in Figure 5-1. The projects have been divided into four categories: near-term high priority small projects (0 – 5 years), near-term high priority large projects (0 – 5 years), mid-term projects (6 – 20 years), long-term projects (beyond 20 years).

**TABLE 5-1
 ROADWAY IMPROVEMENTS**

Priority Number	Improvement Description	Estimated Cost*
Near-Term High Priority Projects (0 – 5 Years), Small Projects		
1-A	Submit request to upgrade roadways recommended for functional classifications changes.	N/A
2-A	Four Mile Road/Viola Main St. intersection: -Add warning signage leading up to the intersection and add stop/yield signage at the intersection	\$1,000
3-A	Lewis Road/Foothill Road intersection: -Consider Modification of the location of yield signage at the intersection - Install intersection warning signage on the east and south approaches.	\$1,000
4-A	Hendrix Road/Randall Flat Road intersection: -Improve warning signage leading up to intersection	\$1,000
5-A	Moscow Mountain Road/Frink Road intersection: -Improve warning signage leading up to intersection	\$1,000
6-A	Upgrade all signage to retroreflectivity standards (~540 signs x \$150 ea.)	\$81,000
7-A	Conduct speed studies on all collector roads in order to enact enforceable speed limits. Estimation of one study per roadway segment (150 ea. x \$200/study)	\$30,000
8-A	ITD bridge maintenance items	Not Estimated

Priority Number	Improvement Description	Estimated Cost*
9-A	Engineering inspection of bridges/large culverts that are less than 20 feet in span length (not previously inspected by ITD).	\$25,000
10-A	Genesee-Troy Road/Cornwall Road intersection: -Conduct a due diligence study to define the needed improvements at this intersection	\$5,000
11-A	Moscow Mountain Road/Mountain View Road intersection: -Conduct a due diligence study to define the needed improvements at this intersection	\$5,000
12-A	Tamarack Road/Randall Flat Road intersection: -Extend the pavement on Randall Flat Road beyond the intersection with Tamarack Road	\$20,000
13-A	Install stop signs on all local roadways that intersect with collector roadways (Approximately 78 locations).	\$11,700
14-A	Teare Road/Kasper Road intersection: -Conduct a due diligence study to define the needed improvements at this intersection	\$5,000
15-A	Little Bear Ridge Road/Hill Road intersection: -Conduct a due diligence study to define the needed improvements at this intersection	\$5,000
16-A	Travis Road/Fiddlers Ridge Road/SH 6 intersection: -Conduct a due diligence study to define the needed improvements at this intersection	\$5,000
17-A	Paradise Ridge Road improvements: -Install warning signs at S-curves -Increase the frequency of magnesium chloride application for roadway stabilization (approximate length of 1.8 mi.)	\$1,000 \$6,700
18-A	Moscow Mountain Road/Herrington Road intersection: -Conduct a due diligence study to define the needed improvements at this intersection	\$5,000
19-A	Wallen Road/Larson Road intersection: -Extend the pavement on Wallen Road beyond the intersection with Larson Road	\$20,000
20-A	Install warning signs prior to problematic curves (unverified quantity of curves – estimate 150 x 2 x \$150/sign)	\$45,000 +/-
21-A	Moscow & Troy Divisions – Conduct a feasibility study to secure a permanent water source for maintenance activities and construction projects.	\$5,000
22-A	Brood Road/Wallen Road/Teare Road proposed alternate route – Conduct a study to determine if improvements to these segments alleviate traffic on Robinson Park Road	\$5,000
23-A	Install warning signage on county roads at Latah Trail crossings.	\$2,000
Near-Term High Priority Projects (0 – 5 Years), Large Projects		

Priority Number	Improvement Description	Estimated Cost*
1	Driscoll Ridge Road/Lamb Road intersection: -Cut back bank on NE quadrant -Add warning signage and consider modification of the signage at the intersection -Consider elevating the south leg of Driscoll Ridge Road to provide improved sight distance.	\$150,000
2	Robinson Park Road bridge: -Rehabilitate and widen bridge	\$600,000
3	Robinson Park Road (Darby Road to 2 mi. SW of Darby Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Cut back banks at intersections with sight distance deficiencies -Add fog lines, centerline striping, and delineators -Conduct speed studies and post lower speed limits where warranted	\$1.8 million
4	Boulder Creek Bridge -Conduct foundation investigation recommended in the ITD bridges report and make necessary repairs.	
5	Robinson Park Road/Park Road intersection & curve: -Construct recoverable ditches -Install warning signs leading up to the intersection -Conduct speed studies and post lower speed limits where warranted	\$150,000
6	Robinson Park Road curve at 0.4 mi. west of Mill Rd: -Construct recoverable ditches -Install warning signs leading up to the curve -Conduct speed studies and post lower speed limit if warranted	\$150,000
7	Old Pullman Road (Moscow city limits to Washington state line): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$900,000**
8	Driscoll Ridge Road/Lamb Road (1 mi. N of Lamb Road to 1 mi. east of Driscoll Ridge Road): -Widen roadway to 26 foot standard with 2 foot shoulders -Conduct speed studies and post lower speed limits where warranted	\$1.8 million
9	Hatter Creek Road bridge: -Replace with prefab steel beams	\$100,000
10	Lenville Road/Mill Road intersection: -Cut back bank on south side of Lenville Rd -Realignment of roadways in vicinity of intersection -Modify signage at intersection -Conduct speed studies on Lenville Road near intersection and post lower speed limit if warranted.	\$250,000- \$600,000
Mid-Term Projects (6 – 20 Years)		

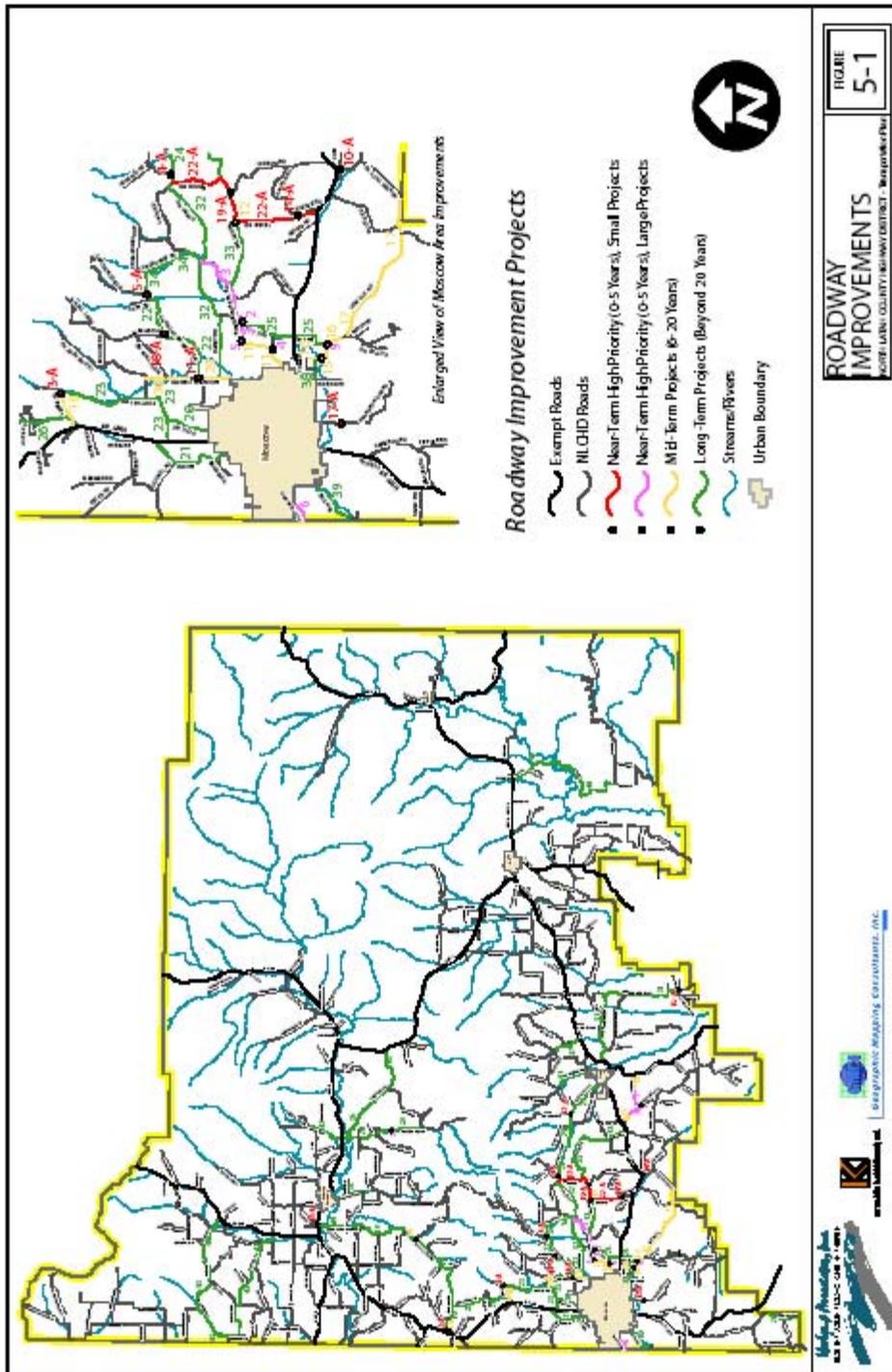
Priority Number	Improvement Description	Estimated Cost*
11	Flannigan Creek Road/Davis Road intersection: -Trim vegetation on SW corner of intersection -Extend pavement on Flannigan Creek Road beyond the intersection with Davis Rd -Provide stop control on Davis Road -Conduct speed studies on Flannigan Creek Road near intersection and post lower speed limit if warranted.	\$150,000
12	Robinson Park Road (Moscow city limits to 2 nd 90-degree curve): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Cut back banks at intersections with sight distance deficiencies -Add fog lines, centerline striping, and delineators -Conduct speed studies and post lower speed limits where warranted	\$1.8 million**
13	Teare Road/Wallen Road intersection: -Cut back bank on SE corner of the intersection -Remove trees on SW corner of the intersection to improve sight distance -Increase warning signage leading up to the intersection -Conduct speed studies on Wallen Road near intersection and post lower speed limit if warranted	\$75,000
14	Driscoll Ridge Road/Lamb Road (SH 8 to 1 mi. S of SH 8 and SH 99 to 1 mi. west of SH 99): -Widen roadway to 26 foot standard with 2 foot shoulders -Conduct speed studies and post lower speed limits where warranted	\$1.8 million
15	Viola Main St. bridge: -Rehabilitate bridge	\$600,000
16	Lenville Road bridge: -Rehabilitate bridge	\$600,000
17	Lenville Road (SH 8 to Blaine Road) -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users.	\$1.3 million
18	Lenville Road (Blaine Road to SLHD boundary): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Add fog lines, centerline striping, and delineators -Improve signage at all major intersections	\$2.3 million
19	Lewis Road improvements: -Widen roadway to 26 foot standard with 2 foot shoulders	\$904,000
Long-Term Projects (Beyond 20 Years)		
20	Flannigan Creek Road/Four Mile Road improvements: -Widen roadway to 26 foot standard with 2 foot shoulders -Pave the remaining unpaved section of roadway between Davis Road and Lisher Cut-Off	\$10 million
21	Polk Street Extension (Moscow city limits to Foothill Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$500,000**

Priority Number	Improvement Description	Estimated Cost*
22	Mix Road (Moscow city limits to US 95): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Trim vegetation at intersections with sight distance deficiencies -Cut back banks at intersections with sight distance deficiencies -Increase warning signage prior to intersections with sight distance deficiencies -Add fog lines, centerline striping, and delineators	\$2.0 million
23	Moscow Mountain Road (Mountain View Road to Frink Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Pave the remaining unpaved section of roadway -Add centerline striping and delineators -Relocate utility poles and guy wires that are too close to the shoulder	\$2.5 million
24	Foothill Road (US 95 to Lewis Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users between US 95 and Idlers Rest Road and 2 foot shoulders on the remaining section -Cut back the banks on curves with sight distance deficiencies	\$3.2 million
25	Randall Flat Road (Robinson Park Road to Troy city limits): -Pave all remaining unpaved sections of roadway -Remove trees that are too close to the roadway -Remove vegetation and cut back banks on curves with sight distance deficiencies	\$1.2 million
26	Mill Road (entire length): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$1.4 million**
27	Saddle Ridge Road (entire length): -Widen roadway to 26 foot standard with 2 foot shoulders -Pave all remaining unpaved sections of roadway -Remove vegetation and cut back banks at curves with sight distance deficiencies -Add centerline striping -Add appropriate warning signage prior to all problematic curves and intersections -Remove trees that are too close to the roadway shoulders	\$2.0 million
28	Thorn Creek Road (US 95 to SLHD boundary): -Widen roadway to 26 foot standard with 2 foot shoulders	\$1.8 million
29	Hatter Creek Road (SH 6 to Morris Road): -Widen roadway to 26 foot standard with 2 foot shoulders	\$3.6 million
30	Mountain View Road (Moscow city limits to 0.92 mi. N of city limits) -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$830,000**
31	Mountain View Road (0.92 mi. N of Moscow city limits to Idlers Rest Road) -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$878,000
32	Little Bear Ridge Road (SH 8 to Hill Road): -Widen roadway to 26 foot standard with 2 foot shoulders	\$3.75 million

Priority Number	Improvement Description	Estimated Cost*
33	Darby Road (entire length): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Pave all remaining unpaved sections roadway	\$2.7 million
34	Wallen Road (Robinson Park Road to SH 8): -Pave all remaining unpaved sections of roadway -Add centerline striping -Conduct speed studies and post lower speed limits where warranted	\$2.2 million
35	Frink Road/Crumarine Loop/Lyon Road (Moscow Mountain Road to Darby Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Pave all remaining unpaved sections of roadway	\$2.7 million
36	Rock Creek Road (Potlatch city limits to East Rock Creek Road): -Widen roadway to 26 foot standard with 2 foot shoulders -Add centerline striping and delineators -Improve curve immediately south of Potlatch city limits by cutting back the bank for increased sight distance and modifying the slope of the roadway to provide proper superelevation	\$1.4 million
37	Bear Creek Road (entire length): -Widen roadway to 26 foot standard with 2 foot shoulders -Pave all remaining unpaved sections of roadway	\$4.8 million
38	Spring Valley Road (SH 8 to Nora Creek Road): -Widen roadway to 26 foot standard with 2 foot shoulders	\$1.4 million
39	Palouse River Drive (Moscow city limits to Lenville Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$1.4 million**
40	Sand Road (Moscow city limits to Washington state line): -Widen roadway to 26 foot standard with 2 foot shoulders	\$1.0 million**
41	Park Road (SH 8 to South Park Road): -Widen roadway to 26 foot standard with 2 foot shoulders	\$7.6 million
42	Big Meadow Road (Orchard Loop to end of roadway): -Widen roadway to 24 foot standard (local road) with 2 foot shoulders	\$900,000
43	Gold Hill Road (SH 6 to ½ mi. N of T Road): -Widen roadway to 26 foot standard with 2 foot shoulders	\$1.8 million**
44	Cora Road/Schneider Road/Garfield Road/Deep Creek Road/Freeze Road Loop (entire length): -Widen roadway to 26 foot standard with 2 foot shoulders	\$8.25 million

*Estimated costs are in 2006 dollars and do not include right-of-way acquisition

**Denotes an improvement that has the potential to be partially or fully funded with private financing from assessed future development impact fees.



PEDESTRIAN AND BICYCLE SYSTEM PLAN

The recommended pedestrian and bicycle improvements have been incorporated into Table 5-1. Projects listed in Table 5-1 specifically identify certain segments of roadways where 4 foot wide shoulders are included in the project description and cost estimate. The 4 foot wide shoulders are recommended to help alleviate potential conflicts with pedestrians and bicycles.

Table 5-2 separates out projects listed in Table 5-1 that include the 4-foot wide shoulder. It also identifies one near-term high priority small project that is specifically related to the Latah Trail.

In the future, other organizations and agencies may contact the highway district and request their support in continuing the Latah Trail on other segments of abandoned railroad right-of-way. Funding applications by other organizations and agencies will benefit from a letter of support from the highway district. The Latah Trail and any extensions of it are expected to continue under the jurisdiction of the Latah County Parks and Recreation. It is in the highway district's best interest to provide statements of support for the increase of the trail system, as it will continue to remove some recreational pedestrian and bicyclists from county roads and bicycle commuters from the state highway system.

**TABLE 5-2
 PEDESTRIAN AND BICYCLE SYSTEM IMPROVEMENTS**

Priority Number	Improvement Description	Estimated Cost*
Near-Term High Priority Projects (0 – 5 Years), Small Projects		
23-A	Install warning signage on county roads at Latah Trail crossings.	\$2,000
Near-Term High Priority Projects (0 – 5 Years), Large Projects		
3	Robinson Park Road (Darby Road to 2 mi. SW of Darby Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Cut back banks at intersections with sight distance deficiencies -Add fog lines, centerline striping, and delineators -Conduct speed studies and post lower speed limits where warranted	\$1.8 million
7	Old Pullman Road (Moscow city limits to Washington state line): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$900,000**
Mid-Term Projects (6 – 20 Years)		
12	Robinson Park Road (Moscow city limits to 2 nd 90-degree curve): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Cut back banks at intersections with sight distance deficiencies -Add fog lines, centerline striping, and delineators -Conduct speed studies and post lower speed limits where warranted	\$1.8 million**
15	Viola Main St. bridge: -Rehabilitate bridge	\$600,000

Priority Number	Improvement Description	Estimated Cost*
17	Lenville Road (SH 8 to Blaine Road) -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users.	\$1.3 million
18	Lenville Road (Blaine Road to SLHD boundary): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Add fog lines, centerline striping, and delineators -Improve signage at all major intersections	\$2.3 million
Long-Term Projects (Beyond 20 Years)		
21	Polk St. Extension (Moscow city limits to Foothill Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$500,000**
22	Mix Road (Moscow city limits to US 95): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Trim vegetation at intersections with sight distance deficiencies -Cut back banks at intersections with sight distance deficiencies -Increase warning signage prior to intersections with sight distance deficiencies -Add fog lines, centerline striping, and delineators	\$2.0 million
23	Moscow Mountain Road (Mountain View Road to Frink Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Pave the remaining unpaved section of roadway -Add centerline striping and delineators -Relocate utility poles and guy wires that are too close to the shoulder	\$2.5 million
24	Foothill Road (US 95 to Lewis Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users between US 95 and Idlers Rest Road and 2 foot shoulders on the remaining section -Cut back the banks on curves with sight distance deficiencies	\$3.2 million
26	Mill Road (entire length): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$1.4 million**
30	Mountain View Road (Moscow city limits to 0.92 mi. N of city limits) -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$830,000**
31	Mountain View Road (0.92 mi. N of Moscow city limits to Idlers Rest Road) -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$878,000
33	Darby Road (entire length): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Pave all remaining unpaved sections roadway	\$2.7 million

Priority Number	Improvement Description	Estimated Cost*
35	Frink Road/Crumarine Loop/Lyon Road (Moscow Mountain Road to Darby Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users -Pave all remaining unpaved sections of roadway	\$2.7 million
39	Palouse River Dr. (Moscow city limits to Lenville Road): -Widen roadway to 26 foot standard with 4 foot shoulders for ped/bike users	\$1.4 million**

PUBLIC TRANSPORTATION SYSTEM PLAN

Transit service provides mobility to community residents who do not have access to automobiles, and provides an alternative to driving for those who do. Transit is not a function of the North Latah Highway District, but transit is important to meet the needs of travelers within the district, and those making trips outside of the community. There is an immediate need for increased access by a broader spectrum of the community to a Dial-a-Ride form of transit. Although no specific public transit project has been identified that the highway district should pursue as a lead agency, the district should encourage public transit whenever the opportunity presents itself. Some methods may be in supporting fund applications with letters, and cooperating with other agencies should improvement in the right-of-way be sought for facilities such as bus loading zones and park-and-ride lots. Palouse-Clearwater Environmental Institute has expressed the desire to advertise their internet-based rideshare program by placing advertising signs in the local road right-of-ways. Public transit and rideshare programs reduce vehicles on the roadway system, so it is in the highway district’s best interest to encourage the success of these programs.

IMPLEMENTATION PLAN

This section has outlined specific transportation system improvements as well as a corresponding timeline for implementation of the identified improvements. The sequencing plan presented is not detailed to the point of a schedule identifying specific years when infrastructure should be constructed, but instead provides a ranking of projects to be implemented over 0 to 5 year, 6 to 20 year, and 20+ year horizon periods. In this manner, the implementation of identified system improvements has been staged to spread investment in this infrastructure over the 20-year life of this plan.

The construction of roads, water, sewer, and electrical facilities in conjunction with local development activity should be coordinated if the NLCHD and the cities of Moscow, Troy, Deary, Bovill, and Potlatch are to develop in an orderly and efficient way. The transportation plan should be considered in light of developing infrastructure-sequencing plans.

Funding and Capital Improvement Plan

INTRODUCTION

The Local Highway Technical Assistance Council recommends that a implementation of this Transportation System Plan include a transportation financing program. This program should include:

- A list of planned transportation facilities and major improvements.
- A general estimate of the timing for planned improvements that will enable the NLCHD to rectify existing transportation facility and major improvement needs.
- Determination of rough cost estimates for the transportation facilities and major investments identified in the transportation plan.
- A discussion of existing and potential financing sources to fund the development of each transportation facility and major improvement (which can be described in terms of general guidelines or local policies).

Section 5 of this plan identified the recommended improvement projects, an implementation timeline, and estimated improvement costs. This section provides an overview of the NLCHD's historic funding levels, and available funding sources at the federal, state, county, and local level.

FUNDING HISTORY

The highway district currently operates primarily as a maintenance organization funded by traditional revenue sources of property taxes, motor user funds, electrical cooperative and forest service funds. The consulting team reviewed NLCHD's annual budget for the last five years and found the average annual revenue was \$2,900,000. Approximately 11% of the annual revenues (an average of \$340,760 per year) was used for capital improvements, primarily for upgrading gravel roads with bituminous surface treatment, and construction of a new bridge. In the past, approximately 25 % of the funding for capital projects was made available primarily through the Exchange Program (approximately \$85,000 per year). The Exchange Program used to be a constant, reliable source of funding for rural local jurisdictions that was in addition to traditional revenue sources. The Exchange Program was eliminated by the Idaho Transportation Board in FY 2004. NLCHD has not attempted to obtain federal funding through competitive project applications for many years because of a negative experience with a past federal project. The highway district recognizes it has more needs for improvements than can be funded with the current revenues. Competing successfully with project funding applications is one method the highway district can utilize to obtain more funding for improvement projects.

POTENTIAL TRANSPORTATION FUNDING SOURCES

Detailed information and recommendations for funding maintenance and capital projects can be found in the *Manual on Local Highway Jurisdictions Funding*, first edition by the Local Highway Technical Assistance Council (LHTAC). The publication suggests that the most appropriate sources for funding maintenance and rehabilitation activities should be on-going revenues (highway user revenues and property tax). It is recommended that capital improvement projects be funded through local option registration fees, bonding or federal-aid funding. The local option registration fee requires voter approval, and at this time is not a popular idea statewide. It may be an option to consider in future Capital Improvement Plan updates.

LHTAC recommends that a portion of on-going revenues be retained to form a capital reserve fund. The capital reserve fund would be used to provide matching funds for federal-aid projects, and to implement smaller capital projects. A review of the district's annual budget indicates that approximately five % (\$150,000) should be set aside annually to fund matches for federal-aid projects and small-scale capital projects (projects with total costs less than \$150,000).

This funding plan addresses capital projects identified in the transportation plan. This report has not determined whether the annual budget available through traditional revenue sources is adequate to maintain the existing system. The funding level needed to maintain the system can be calculated once an inventory of assets has been conducted, the conditions have been analyzed, and a valuation of the entire system has been applied. A test of the North Latah County Highway District's current annual maintenance budget compared to calculated costs for maintaining the system is beyond the scope of this project. However, the asset management system developed as part of this project accomplishes the majority of the first two steps needed to make the assessment. This assessment would determine whether current funding levels are adequate to maintain the system. If not, methods to secure additional reliable annual revenue should be explored. For the purpose of this summary, it is assumed the current level of revenue adequately supports system preservation. If this assumption proves to be correct, perhaps reduced maintenance costs can be realized through the implementation of new road stabilization methods described in Section 4 of this report. The savings could be added to those being reserved for capital projects.

This section focuses on identifying potential funding sources for the projects identified in the transportation plan. The Capital Improvement Plan (CIP) identifies specific funding sources for projects. The highway district prefers to fund significant capital projects with funds other than traditional revenue so as not to degrade the level of maintenance applied to the system. Federal-aid and Local Rural Highway Investment Program funds are the preferred way to fund these proposed capital projects. There are several non-highway user revenue funding sources that the highway district should consider for funding larger priced capital projects in the future: bonding, increased property tax, and local option vehicle registration fees. These are discussed in more detail in the Non-highway User Revenue subsection below.

North Latah County Highway District is eligible for the Local Rural Highway Investment Program, which is a large pool of funds (approximately two million dollars annually), is non-federal, and has fewer requirements for qualification and compliance. The NLCHD is also eligible for the Local Federal-aid Incentive Program funds that are only available for roads with a functional classification of rural major collector or higher, and projects must comply with federal standards. A small portion of these funds are available for minor collectors. There are a few other Federal funding sources available: enhancements,

congestion mitigation and air quality improvement, and bridge replacement or rehabilitation. Other funding sources are outlined in LHTAC's *Manual on Local Highway Jurisdictions Funding*, but were not applicable to North Latah County Highway District proposed projects, and therefore are not discussed in this report.

LOCAL RURAL HIGHWAY INVESTMENT PROGRAM

Local Rural Highway Investment funds are the old Exchange Program funds that are now competitively awarded. There is a cap of \$100,000 for project requests, and no matching funds are required. Once again, it must be stated that these funds are not guaranteed, and applications are very competitive. It may be difficult to secure these funds no matter how well a project application is put together.

These funds can be used for construction, reconstruction, planning, and matching funds for federal-aid projects. LRHIP projects are evaluated and administered by LHTAC. State code requires the use of private contractors for roadwork and supplies for projects over \$50,000.

Project applications traditionally are mailed out in September and due in November of each year. Contact: Jim Zier, Local Highway Administrator, LHTAC, 3330 Grace St., Boise, Idaho 83703, Telephone (800) 259-6841.

LOCAL FEDERAL-AID INCENTIVE PROGRAM

Approximately \$6 million is available annually for projects on rural federal routes from the Local Federal-aid Incentive Program. These funds can be used for new construction, reconstruction, or rehabilitation of roadways classified with Federal Highway Administration (FHWA) as major collector or higher. A small amount is available for minor collectors. These funds can also be used for transportation planning, corridor studies, and purchase of minimally corrosive anti-icing material. There is no cap on the amount that can be requested per project, but LHTAC representatives recommend a range of \$250,000 minimum to \$2.5 million maximum (does not include matching funds). transportation plan funding requests can be less than the \$250,000 minimum. These funds are distributed through a competitive application process. Approximately \$35 million in project costs were requested for the \$5.5 million program in 2003. Once an agency has been awarded Incentive funds, there is a three-year waiting period before another application can be submitted. LHTAC evaluates and administers these projects. A 7.34% match is required.

Applications are mailed out in November, submitted in March, and approved in September. Contact: Gerald Flatz, Local Highway Administrator, LHTAC, 3330 Grace St., Boise, Idaho 83703 Telephone: (800) 259-6841

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT:

This program purpose is to reduce transportation related sources of air pollution and emissions deficiencies, while concurrently facilitating growth throughout the state. The application process targets communities with air quality problems as identified in cooperation with Idaho Department of Environmental Quality. Projects are evaluated and ranked on a statewide basis for air quality benefits and cost effectiveness.

Project applications are submitted in December or January. Contact Phil Choate, CM/AQ Coordinator, Idaho Transportation Department, Boise, Idaho, Telephone: (208) 334-8489.

STP ENHANCEMENT

Enhancement funds can be used for the following types of projects:

- Pedestrian and bicycle facilities.
- Safety and educational activities for pedestrians and bicycles.
- Acquisition of scenic easement, and scenic or historic sites.
- Scenic or historic highway programs, including tourist and welcome centers.
- Landscaping and beautification.
- Historic preservation.
- Rehabilitation and operation of historic transportation buildings, structures, or facilities.
- Preservation of abandoned railway corridors.
- Control and removal of outdoor advertising.
- Archaeological planning.
- Mitigation of water pollution due to highway runoff.
- Mitigation of wildlife mortality caused by vehicles.
- Establishment of transportation museums.

The maximum cap on Federal-aid for any one project is \$500,000. A local match of 2% to 10% is required.

Projects applications are due in January. Contact: Phil Choate, Enhancement Coordinator, Idaho Transportation Department, Boise, Idaho, Telephone: (208) 334-8489.

BRIDGE REPLACEMENT OR REHABILITATION

Funds are available for bridge replacement if the bridge sufficiency rating is 50 or lower. Rehabilitation funds may be awarded if the sufficiency rating is between 50 and 80. The bridge must be structurally deficient or functionally obsolete. Projects are prioritized statewide based on bridge condition. Bridge replacements are heavily emphasized over rehabilitation projects. Contact: Joe Haynes, Local Highway Administrator, LHTAC, 3330 Grace St., Boise, Idaho 83703, Telephone: (800) 259-6841.

FOREST HIGHWAYS

Forest highway funds are for improvement projects on public roads serving United States Forest Service forests. The statewide priority is based on the benefits of the project to management of the Forest Service resources. The Western Federal Lands Highways Division (WFLHD) makes the project selection with concurrence of ITD. This transportation plan did not identify any high priority projects on roadways accessing the National Forest lands. Future updates to the plan may find high-priority roadway segments eligible for this type of funding. Contact: Ken Helm, District 2 Senior Planner, Idaho Transportation Department, 2600 North and South Highway, Lewiston, Idaho, Telephone: (208) 799-5090.

NON-HIGHWAY USER REVENUE

Federal-aid funding sources are extremely competitive. It may take many years for a project application to be approved, if ever. Projects funded by federal-aid are included in the "Statewide Transportation Improvement Plan" (STIP) which programs project expenditures for a four-year period into the future. The STIP is updated annually. Programmed projects are occasionally dropped off the list or moved further into the future due to unforeseen circumstances, such as the discovery of environmental problems. This allows a later-scheduled project to move up to closer year. According to representatives of LHTAC, it is unlikely that a small local highway jurisdiction will have more than one project listed in the STIP at one time (with the exception of bridge projects, which are awarded according to need based on bridge sufficiency ratings). In the most optimistic scenario, a small highway district can plan for one

federal-aid project every four years. This reality is prompting local jurisdictions to pursue other funding options for larger capital projects. LHTAC has outlined other options in the recently published *Manual of Local Highway Jurisdictional Funding*. Three other potential sources for NLCHD are bonding, a property tax increase, and the local option vehicle registration fee. All three of these options require the coordination with and support of other agencies in the county, as well as voter approval. The reality is that it may be easier to obtain voter approval for some capital projects than it is to obtain federal-aid. In general, highway district commissioners do not favor increasing taxes or fees for their constituents. Although bonding is an option, highway district commissioners usually do not pursue it because there is no one project overwhelmingly supported by the constituents of the district that would meet approval with a bond levy. Commissioners are usually not supportive of increased property tax to fund identified capital projects. A local option vehicle registration fee may be the favored option in the future if federal-aid is not approved for the district's large capital projects.

LOCAL OPTION VEHICLE REGISTRATION FEE

Voters in Latah County may authorize the board of County Commissioners to implement and collect a motor vehicle registration fee. The fee must be used exclusively for the construction, repair, maintenance and traffic supervision of their highway system. The generated funds must be distributed as provided by written agreement by each local highway jurisdiction in the county. If no agreement is adopted, then the following shall apply: 30% to the cities in the same proportion as the population of the city bears to the total population of all the cities in the county. The remaining 70% shall be divided between each highway district in the county based on road mileage in the highway district as a percentage of the road mileage in the county.

CAPITAL IMPROVEMENT PLAN

Table 6-1 proposes a feasible implementation plan based on funding recommendations described in this section. The attached Capital Improvement Plan (CIP) is optimistic in that it assumes the Highway District is successful in all of the proposed funding applications. The CIP has been developed utilizing approximately \$150,000 per year from the Highway District's annual budget. As mentioned earlier in this section, the \$150,000 per year is recommended to be set aside in a Capital Reserve fund that will be used to fully fund smaller projects or to be used as matching funds for Federal aid projects. Target start years will need to move back on future versions of the CIP if proposed funding sources are not secured in accordance with the target year. It is recommended that the CIP be revised every year to reflect accomplished projects and other needs that develop and were not predicted or accounted for in this plan.

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
Near-term High Priority Projects (0 – 5 Years), Large Projects (Higher cost projects requiring supplemental funding from outside sources or large capital expenditure)						
2007	1	Driscoll Ridge/ Lamb Road Intersection	Cut back north bank, raise south leg, signage	\$150,000	Capital Reserve or Investment funds	
Apply 2007, construct 2010	2	Robinson Park Road Bridge	Rehabilitate and widen bridge.	\$600,000	Federal Bridge Funds	Bridge funds will require \$44,000 matching funds in 2010.
Apply 2007, construct 2010	3	Robinson Park Road 2.0 miles southwest of Darby Road	Widen paved road to 26 ft. w/ 4 ft. shoulders, cut back banks at intersections, striping, speed studies	\$1,800,000	Federal-aid Incentive Funds	Federal-aid will require \$132,000 matching funds in 2010. If Federal-aid funding approval is delayed, then intersection improvements at Darby Road and Wallen Road should become stand-alone high-priority projects.
Apply 2007, construct 2008	4	Boulder Creek Bridge	Conduct foundation investigation recommended in ITD bridge report, make repair	Study \$3,000 Repairs \$50,000-100,000	Capital Reserve or Investment funds	Anticipate recommended repair action will be investment fund application in 2007.
2009	5	Robinson Park Road/ Parker Road intersection and curve	Construct recoverable ditches, install warning signs, speed study.	\$150,000	Capital Reserve or Investment funds	
(*1) Start Years are not identified beyond Mid-Term project list. (*2) Estimated costs are in 2006 dollars and do not include right-of-way acquisition.						

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
2009	6	Robinson Park Road curve 0.4 miles west of Mill Road	Construct recoverable ditches, install warning signage, speed study.	\$150,000	Capital Reserve or Investment funds	
N/A	7	Old Pullman Road	Widen to 26 ft. standard w/ 4 ft shoulders	N/A	Private development	City may annex or take over roadway segment within five years.
Apply in 2011, construct in 2014	8	Driscoll Ridge Road/ Lamb Road Improvements	1.0 miles of Driscoll Ridge Road north of Lamb Road, 1.0 miles of Lamb Road east of Driscoll Ridge Road Widen road to 26 ft. standard	\$1,800,000	Federal-aid Incentive Funds	Eligibility for Federal-aid requires approved functional classification upgrade to major collector. Federal-aid will require \$132,000 matching funds in 2014. At \$250,000 lower level project, apply for \$100,000 Investment funds.
2011	9	Hatter Creek Road Bridge	Replace with prefab steel beams	\$100,000	Capital Reserve or Investment Funds	
2012	10	Lenville Road/Mill Road Intersection	Cut back bank, realignment, paving, signage, speed study	FA=\$600,000 (lower level \$250,000)	Federal-aid requires more extensive improvements. Recommend lower level improvements and fund with split between Capital Reserve and Investment Funds.	Eligibility for Federal-aid requires approved functional classification upgrade to major collector. Federal-aid will require \$44,000 matching funds.

Near-term High Priority Projects (0 – 5 Years) (Small Projects to be completed as Capital Reserve/Maintenance funds become available)						
TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
2007	1-A	District-wide	Submit request to upgrade classification of roadways.	N/A	Administrative	
2007	2-A	Four Mile Road/ Viola Main St. Intersection	Stop sign and warning signage	\$1,000	Maintenance funds	
2007	3-A	Lewis Road/ Foothill Road Intersection	Signage	\$1,000	Maintenance funds	

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
2007	4-A	Hendrix Road/ Randall Flat Road Intersection	Signage	\$1,000	Maintenance funds	
2007	5-A	Moscow Mountain Road/ Frink Road Intersection	Signage	\$1,000	Maintenance funds	
2007	6-A	District-wide	Upgrade signage to retro-reflectivity standards. (540 signs X \$150 each)	\$81,000	Capital Reserve or Investment Funds (\$30,000 maximum available)	
2008	7-A	District-wide	Speed studies for speed limit enforcement on collector roads. Estimate one study per roadway segment. 150 X \$200 each for in-house labor.	\$30,000	Capital Reserve	
2008	8-A	District-wide	ITD Bridge Maintenance Items	Not estimated	Maintenance funds	Implement bridge maintenance items listed in ITD bridge inspection reports. Many items listed are small cost items.

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
2009	9-A	District-wide	Engineering inspection of bridges/large culverts less than 20 ft. span (not inspected by ITD).	\$25,000	Capital Reserve	Inspection will yield list of maintenance and repair items that should be incorporated into maintenance activities or added to the Capital Improvement Plan.
2008	10-A	Genesee-Troy Road/ Cornwall Road Intersection	Study to define needed improvements	\$5,000	Capital Reserve	Six intersections have been identified as needing more study (listed below). Study is needed to determine recommended improvements. Studies could be combined under one contract to reduce total cost of studies.
2008	11-A	Moscow Mountain Road/ Mountain View Road Intersection	Study to define needed improvements	\$5,000	Capital Reserve	
2010	12-A	Tamarack Road/ Randall Flat Road Intersection	Extend paving for west leg of intersection.	\$20,000	Capital Reserve	
2010	13-A	District-wide	Install stop signs where all local roads intersect collector roads. 78 locations.	\$11,700	Capital Reserve or Maintenance funds	

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
2008	14-A	Teare Road/Kasper Road Intersection	Study to define needed improvements	\$5,000	Capital Reserve	
2008	15-A	Little Bear Ridge Road/Hill Road Intersection	Study to define needed improvements	\$5,000	Capital Reserve	
2008	16-A	Travis Road/Fiddlers Ridge Road/SH 6 Intersection Improvements	Study to define needed improvements	\$5,000	Capital Reserve	
2007	17-A	Paradise Ridge Road Improvements	Warning signs at S curve / more frequent application of magnesium chloride for stabilization (1.8 miles).	\$1,000/\$6,700	Maintenance funds	
2008	18-A	Moscow Mountain Road/Herrington Road Intersection	Study to define needed improvements.	\$5,000	Capital Reserve	

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
2008	19-A	Wallen Road/Larson Road Intersection	Pave two legs of intersection	\$20,000	Capital Reserve	
2008	20-A	District-wide	Install warning signs prior to problematic curves (unverified quantity of curves = 150 X 2 X \$150).	\$45,000 +/-	Capital Reserve	
2009	21-A	Moscow-Troy Divisions	Feasibility study to secure permanent water source for maintenance activities and construction projects in the Moscow and Troy divisions.	\$5,000	Capital Reserve	
2009	22-A	Brood/Wallen/Teare Alternate Route	Study to determine if improvements to these segments would reduce traffic from Robinson Park Road	\$5,000	Capital Reserve	
2009	23-A	Latah Trail Crossings	Install warning sign for vehicles approaching Latah Trail.	\$2,000	Maintenance or Capital Reserve	

Mid-term Projects (6 to 20 years)						
TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
2013	11	Flannigan Creek Road/ Davis Road Intersection	Trim vegetation, pave unpaved leg of intersection, improve "S" curves to the north, signage, speed study	\$150,000	Capital Reserve or Investment funds	
N/A	12	Robinson Park Road from Moscow city limits to second 90 degree curve.	Widen paved road to 26 ft. w/ 4 ft. shoulders, cut back banks at intersections, striping, speed studies	N/A	Private development	Urban development anticipated in this segment within 15 years
2015	13	Teare Road/ Wallen Road Intersection Improvements	Cut back bank, right-of-way acquisition, signs, speed study	\$75,000	Capital Reserve or Investment Funds	
Apply in 2015, construct in 2018	14	Driscoll Ridge Road/ Lamb Road Improvements	1.0 miles of Driscoll Ridge Road south of SH 8. 1.0 mile of Lamb Road from SH 99 to complete connection. Widen to 26 ft. standard	\$1,800,000	Federal-aid Incentive Funds	Eligibility for Federal-aid requires approved functional classification upgrade to Major Collector. Federal-aid will require \$132,000 matching funds in 2018.
Apply in 2015, construct in 2018	15	Viola Main St. Bridge	Rehabilitate bridge	\$600,000	Federal Bridge Funds	Bridge funds will require \$44,000 matching funds in 2018.
Apply in 2019, construct in 2022	16	Lenville Road Bridge	Replace and widen bridge	\$600,000	Federal Bridge Funds	Bridge funds will require \$44,000 matching funds in 2022.
Apply in 2019, construct in 2022	17	Lenville Road between SH 8 and Blaine Road	Widen roadway to 26 ft. standard with 4 ft. shoulders	\$1,300,000	Federal-aid Incentive Funds	Eligibility for Federal-aid requires approved functional classification upgrade to Major Collector. Federal-aid will require \$97,600 matching funds in 2022.
Apply in 2023, construct in 2026	18	Lenville Road southeast of Blaine Road	From Blaine Road 2.5 miles south east. Widen to 26 ft. standard with 4 ft. shoulders	\$2,300,000	Federal-aid Incentive Funds	Eligibility for Federal-aid requires approved functional classification upgrade to Major Collector. Federal-aid will require \$166,000 matching funds in 2026.

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
Long-term Projects (beyond 20 years)						
	19	Lewis Road Improvements	Widen to 26 ft. standard, pave	\$904,000	Minor collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving.	Future planning efforts should re-evaluate functional classification to determine if upgrade to major collector is warranted. Upgrade to major collector will allow eligibility for Federal-aid Incentive funds.
	20	Flannigan Creek Road/ Four Mile Road	Eleven mile improvement project. Widen to 26 ft. standard, pave unpaved portions.	\$10,000,000	Federal-aid Incentive Funds	Break project up into two mile sections starting with the unpaved segment between Davis Road and Lisher Cutoff. Continue to apply for Federal-aid Incentive funds for each segment until project is complete.
N/A	21	Polk Street Extension between Moscow city limits and Foothill Road	Widen to 26 ft. standard with 4' shoulders.	N/A	Private development	Urban development anticipated in this area within 20 years
N/A	22	Mix Road between Moscow city limits and US Hwy. 95.	Widen to 26 ft. standard with 4' shoulders.	N/A	Private development	Urban development anticipated in this area before highway district can secure improvement funds.
	23	Moscow Mountain Road between Mountain View Road and Frink Road	Widen to 26 ft. standard with 4' shoulders.	\$2,500,000	Federal-aid Incentive Funds	
Could move up, see Notes column	24	Foothill Road Improvements between US Hwy. 95 and Lewis Road	Widen to 26 ft. standard. Include 4' shoulders between US Hwy. 95 and Idlers Rest Road.	\$3,200,000	Minor Collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving when ADT exceeds 220.	Segment between US 95 and Polk St. may be eligible for CMAQ funds now due to 220 ADT. Future planning efforts should re-evaluate functional classification to determine if upgrade to Major Collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
	25	Randall Flat Road between Robinson Park Road and Troy city limits.	Pave gravel sections, no widening (other than removing trees too close to roadway), striping	\$1,225,000	CMAQ when ADT exceeds 220.	Monitor ADT of unpaved segment. Apply for CMAQ funds when ADT exceeds 220.
	26	Mill Road Improvements	Widen to 26 ft. standard with 4 ft. shoulders.	N/A	Private development	Urban development anticipated in this area before highway district can secure improvement funds.
	27	Saddle Ridge Road	Pave gravel sections. Widen to 26 ft. standard.	\$2,000,000	Minor collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving when ADT exceeds 220.	Future planning efforts should re-evaluate functional classification to determine if upgrade to Major Collector is warranted. Upgrade to major collector will allow eligibility for Federal-aid Incentive funds.
	28	Thorn Creek Road	Widen to 26 ft. standard	\$1,800,000	Federal-aid Incentive Funds	
	29	Hatter Creek Road between SH 6 and Morris Road	Widen to 26 ft. standard	\$3,600,000	Minor Collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving when ADT exceeds 220.	Future planning efforts should re-evaluate functional classification to determine if upgrade to Major Collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.
	30	Mountain View Road 0.92 miles north of Moscow city limits	Widen to 26 ft. standard with 4 ft. shoulders	\$830,000	Private Development	Urban development anticipated in this area before highway district can secure improvement funds.
	31	Mountain View Road between Moscow Area of Impact boundary and Idlers Rest Road	Widen to 26 ft. standard with 4 ft. shoulders	\$878,000	Federal-aid Incentive Funds	Eligibility for Federal-aid requires approved functional classification upgrade to major collector. Federal-aid will require \$64,000 matching funds.
	32	Little Bear Ridge Road between SH 8 and Hill Road	Widen to 26 ft. standard.	\$3,750,000	Minor collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening.	Future planning efforts should re-evaluate functional classification to determine if upgrade to major collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
	33	Darby Road	Pave gravel portions. Widen to 26 ft. standard with 4 ft. shoulders.	\$2,700,000	Minor collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving when ADT exceeds 220.	Future planning efforts should re-evaluate functional classification to determine if upgrade to major collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.
	34	Wallen Road	Pave gravel portions. Improve to 24 ft. standard.	\$2,200,000	Most of this road will remain unclassified and is not eligible for Federal-aid Incentive funds. Capital Reserve for widening to standard. CMAQ for paving portion when ADT exceeds 220.	Future planning efforts should re-evaluate functional classification to determine if upgrade to Minor Collector is warranted.
	35	Frink / Crumarine Loop/ Lyon Road Major Collector	Widen to 26 ft. standard with 4 ft. shoulders. Pave gravel portions.	\$2,700,000	Federal-aid Incentive funds	Federal-aid funding will require \$200,000 matching funds.
	36	Rock Creek Road between Potlatch city limits and East Rock Creek Road	Widen to 26 ft. standard, striping, improve curve immediately south of Potlatch city limits.	\$1,400,000	Minor Collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving when ADT exceeds 220.	Future planning efforts should re-evaluate functional classification to determine if upgrade to Major Collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.
	37	Bear Creek Road	Pave gravel portion. Widen to 26 ft. standard.	\$4,800,000	Minor Collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving when ADT exceeds 220.	Break project up into two mile segments. Future planning efforts should re-evaluate functional classification to determine if upgrade to Major Collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.
	38	Spring Valley Road between SH 8 and Nora Creek Road	Widen to 26 ft. standard.	\$1,400,000	Minor collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving when ADT exceeds 220.	Break project up into two mile segments. Future planning efforts should re-evaluate functional classification to determine if upgrade to major collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.

TARGET START YEAR (*1)	PRIORITY NUMBER	PROJECT LOCATION	PROJECT DESCRIPTION	ESTIMATED COST (*2)	POTENTIAL FUNDING SOURCE(S)	NOTES
	39	Palouse River Drive between Moscow city limits and Lenville Road	Widen to 26 ft. standard w/ 4 ft. shoulders.	N/A	Private development	Urban development anticipated in this area before highway district can secure improvement funds.
	40	Sand Road between Moscow city limits and State line.	Widen to 26 ft. standard.	N/A	Private development	Urban development anticipated in this area before highway district can secure improvement funds.
	41	Park Road between SH 8 and South Park Road	Widen to 26 ft. standard	\$7,600,000	Minor collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving when ADT exceeds 220.	Break project up into two mile segments. Future planning efforts should re-evaluate functional classification to determine if upgrade to major collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.
	42	Big Meadow Road northwest of Orchard Loop	Widen to 24 ft. standard	\$900,000	This road will remain unclassified and is not eligible for Federal-aid Incentive funds. Capital Reserve for widening to standard.	
	43	Gold Hill Road between SH 6 and ½ mile north of T Road	Widen to 26 ft. standard	\$1,800,000	Minor Collector not eligible for Federal-aid Incentive funds. Capital Reserve for widening, CMAQ for paving when ADT exceeds 220.	Future planning efforts should re-evaluate functional classification to determine if upgrade to Major Collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.
	44	Cora/ Schneider/ Garfield/ Deep Cr./ Freeze Road Minor Collector Loop	Widen to 26 ft. standard.	\$8,250,000	Minor Collector not eligible for Federal-aid Incentive funds.	Break project up into two mile segments. Future planning efforts should re-evaluate functional classification to determine if upgrade to Major Collector is warranted. Upgrade to Major Collector will allow eligibility for Federal-aid Incentive funds.

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