# Chapter One

The Mohawk Valley

## Introduction

This chapter identifies the following as major issues for the Mohawk Valley: The topics covered include economic development, agriculture, livestock, illegal dumping, flood history, flood mitigation, illegal dumping, and recreational/off-road activity. Each of the issues is discussed below in more detail.

## Economic Issues in the Mohawk Valley

### *History*

The pastoral Mohawk Valley of today offers little evidence of a local timber boom that took place during the first half of the 20th century. The early economy of the valley was heavily dependent on the extraction of timber resources. As was often the case during this period, the resources were depleted and most timber companies were forced to move on (*see table 1.1*). Current valley inhabitants are a close-knit community who enjoy a quiet rural lifestyle, with little risk of being engulfed by nearby suburbia.

The first Euro-American settlement of the Mohawk Valley occurred during the mid-1800s with the first Post Office established at Marcola on 20 December 1862 (Polley 1984; Downing 2002). The town was named for its first postmistress, Mary Cole. Early on, logging was the major economic enterprise in the valley. The first sawmill was built in 1875 and powered by Mill Creek. Near the end of the 19th century, a Southern Pacific Railroad line in the valley facilitated movement of logs and lumber from the mills. A joint venture between Southern Pacific and the Booth Kelly Lumber Company led to the establishment of Wendling (a company town) at the upper end of the valley. By 1901, Wendling was a thriving mill town with a rail depot, a sawmill, and a Post Office. During the same period, Fischer Lumber Company built a three-mile long flume to move logs down the valley to Marcola. Here logs were planed and the finished lumber was shipped out via rail. Over the next few decades, advances in logging technology increased production. By the early 1920's, Booth Kelly and other smaller operations collectively employed

**Table 1.1**: Timber History of the Mohawk Valley

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| **Late 1800's** | ♦ Land granted to settlers through federal legislation:<br>• Oregon Donation Act of 1850<br>• Homestead Act of 1862<br>• Education Land Grants 1859<br>• Railroad land grants<br><br>♦ Mill Creek, the area's first mill, is built by Arch Rader, a miner from Idaho<br>• Mill Creek was water powered and had a vertical saw<br>• During this time, the local lumber market in Marcola was small. Lumber had to be hauled to Eugene or Harrisburg to be sold<br>• 1892, the Mill was closed down<br><br>♦ 1894 – First dam built on the Mohawk River<br>• This splash-dam was built to transport logs more efficiently down the river<br><br>♦ 1890-1910 – Height of river traffic<br>• Thousands of logs carried on the Mohawk River<br><br>♦ 1890's – Southern-Pacific Railroad Co. brings economic boost to region<br>• Railroad gave access to both freight and passengers<br><br>♦ 1894 – Booth-Kelley Lumber Co. established<br>• First Willamette Valley lumber manufacturer to engage in interstate trade<br><br>♦ 1898 – Booth-Kelley seeks to expand operations, begins business relationship with Southern Pacific Railroad<br><br>♦ By 1900 Booth-Kelley:<br>• owns 3 mills in Lane County<br>• owns 100,000 acres of timber land<br>• cuts an average of 100,00 ft of timber in 10 hours using 23 men at one mill<br>• cuts on average between 40,000 and 50,000 feet of wood per acre harvested<br><br>♦ During this time, Lane County has more standing lumber than any other US county |
| **Early 1900's** | ♦ Fischer Lumber Co. established<br>• Built a three-mile long lumber flume (an inclined channel to convey water as power) to Marcola where they had their planing mill and loading docks.<br><br>♦ 1904 – Booth-Kelley was closed down by the government for 2 years because of dealing illegally with Southern-Pacific Railroad in the procurement of timber<br>• Southern Pacific Railroad was selling timber rights to Booth-Kelley on homestead land, a violation of federal law<br>• During this 2-year closure, workers moved elsewhere to find jobs and returned once the mill reopened<br><br>♦ 1910 – Mohawk Lumber Co. started railroad logging<br><br>♦ 1915 – Northwest logging industry went to 'high lead logging', a logging technique that lowered logs down steep terrain by steam-powered winches.<br><br>♦ Booth-Kelley had several different logging camps near Marcola. They also had a variety |

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| **After 1920** | of different locomotives<br>♦ 1921 – Booth-Kelley employed 250 men, with 26 miles of 60lb. track & 20 flat cars<br>♦ Coast Range Lumber Co. in Mohawk Valley had 150 employees & 16 logging trucks<br>♦ Mohawk Lumber Co. had 7 logging disconnect trucks, a type of freight truck with a supporting 'bunk' for carrying logs<br>♦ 1929 – Depression - Booth-Kelley closed<br>• Whole valley affected, loggers and mill workers lose jobs<br>♦ 1934 – Booth-Kelley reopened, expands operation outside of Mohawk Valley<br>♦ 1939 – Saw mills in Marcola abandon railroad and flumes, begin truck logging<br>♦ By 1946, Booth-Kelley was removing railroad track above Wendling because timber was exhausted<br>♦ 1956 – Fischer Lumber Co. liquidates its mill<br>♦ 1959 – Booth-Kelley sold to Georgia-Pacific |
| **Currently** | ♦ 85% of the Valley is forested<br>♦ Maximum timber production is still assumed to be the goal<br>♦ Weyerhaeuser Co. owns a large portion of forested land in the valley<br>• They operate on a 40 to 50 year rotation harvest, replanting within 1 year<br>• 60,000 acres of forest land to be at 'early seral succession'<br>♦ Any future management activities will follow Oregon's Forest Practice Act |

*Source*: Natural Resource Conservation Service. Mohawk River Watershed Assessment Natural Resource Conservation Service in 1999; Polley, Louis E. A History of the Mohawk Valley and Early Lumbering, Marcola, OR: Polley Publishing, 1984.

over 400 workers in the valley (Polley 1984). Marcola had three lumber mills, two vaudeville theatres, motels, stores and train service twice a day (Rural Development Initiatives, Inc. 2002).

In the early 1930's, these companies began running out of timber to harvest. The Great Depression, coupled with depleted timber stands led to several mill closures. Some of the companies turned to smaller scale truck logging as means of moving logs to mills in Eugene and

Springfield. In 1946, Booth Kelly removed rail lines above Wendling and by 1952 the Wendling Post Office closed. In 1956, Fischer Lumber Company liquidated its Marcola mill, punctuating the end of the timber boom in the valley (Polley 1984). Weyerhaeuser's recent purchase of Willamette Industries gives them the largest timber holdings in the valley. Recent timber cutting by corporate and individual landowners is relatively minor compared to historic levels, as most owners look to achieve more sustainable harvests.

### *Demographics*

Today, Marcola is home to approximately 700 people, having remained the primary community in the valley over the last half century. A majority of valley residents commute into Springfield or Eugene for work, with only 4.14% working at home according the most recent census data. Most (81.3%) own their homes and some acreage of land. The median home cost is $128,730, while median income is $15,976. Many locals are lifelong valley residents. The median age in the valley is nearly two years older than the Lane County average, suggesting a higher percentage of retirees. A few families have large land holdings in the valley. Most engage in raising livestock, hay production, and some small-scale logging. Marcola has several small family-owned, community-oriented businesses (restaurants, markets etc.). Currently, there are no major employers in the valley (Rural Development Initiatives, Inc. 2002).

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### *Economic Growth and Development*

Major obstacles stand in the way of economic and residential development in the Mohawk Valley. Marcola is the primary settlement in the valley, yet it remains non-incorporated. Without a local tax base, there are limited ways to generate funding for infrastructure improvements or the municipal services needed to attract development. Additionally, the valley lies outside the urban growth boundary of Springfield so it cannot be annexed or take advantage of city police and fire services. A few new homes have been constructed in recent years, mostly on riverfront lots outside of town. Marcola offers no municipal water or sewage treatment systems, so new construction requires drilling a well and installing a septic system. Adding such infrastructure

would require incorporation, a major initial investment, and long-term property tax increases for the town's residents. Broad-based community support for such measures seems unlikely.

Many properties in Marcola are plagued by outdated and deteriorating septic systems. These homes cannot be sold because they do not meet current septic system codes. During heavy rain events, many of the towns septic systems overflow, resulting in pollutant and bacteria runoff into the Mohawk River. Many view these problems as the most important issues facing Marcola's residents. Community leaders are exploring the possibilities of federal or state funding to help offset the cost of septic upgrades (Thompson 2002).

### *Strategic Planning*

In January 2002, the Marcola Planning Group engaged Rural Development Initiatives Inc. to help define and develop a strategic plan for the community. The completed plan, published in June 2002, defines a list of both short and long-range goals for improving and maintaining the quality of life in and around Marcola. This report profiles both the assets of the community and the primary concerns of its residents. Four primary goals were identified:

- **Infrastructure Goal #1** – Marcola has a safe, nicely landscaped highway system with an efficient and ecological water drainage system.
- **Quality of Life Goal #1** – Marcola's town square is attractive and neat
- **Quality of Life Goal #2** – Visitors feel welcome in Marcola
- **Quality of Life Goal #3** – Marcola is a community where people are informed, concerned, and involved with local events and achievements.

The main goal of the report was to gather data about the community's population and develop a collective vision for the future of Marcola. Beyond the concerns addressed by the goals above, there seems to be a high level of satisfaction with the quality of life in Marcola. The valley residents are proud of their school, small town atmosphere, nearby recreation opportunities, and the pool of talent available for community projects. Proximity to Eugene and Springfield is also viewed as an asset. Their greatest concerns include lack of a stable funding source for infrastructure improvements, problems with septic and drainage systems, the town's appearance, and lack of business opportunities (Rural Development Initiatives, Inc. 2002).

Recreation in the nearby Coburg Hills is one of the major attractions to the Mohawk Valley. Hunting, target shooting, off-road trail riding, camping, and hiking bring visitors from nearby urban areas. Unfortunately, illegal dumping, vandalism, and unauthorized off-road activities have spoiled some of the natural value of the area. Valley residents welcome these visitors and the economic opportunities they present, but they are concerned about damage to the Mohawk watershed's natural resources. The Mohawk Watershed Partnership is currently working to quantify the recreational activity in the valley and looking at ways to encourage recreational users to lessen their impact on the landscape.

The Strategic Plan demonstrates that Marcola's residents are realistic about potential development. There appears to be a clear understanding that until infrastructure and drainage issues are settled, economic growth is likely to remain stagnant. There appears to be very little movement towards incorporating or attempting to attract significant residential development. However, there is an underlying concern that without some improvements, it may be difficult to attract younger families and maintain the population in the future.

## Agriculture

In the Mohawk Valley there are approximately 115,000 acres ranging in elevation from 450 feet to 3900 feet. The upper portion of the valley, approximately 97,000 acres, is mainly large Bureau of Land Management forest land and industrial forest land owned by Weyerhaeuser. The lower 18,000 acres are along the stream corridor and are comprised of mostly private agricultural land, small timber farms, and rural residential home sites. Within this lower area, commercial land is primarily used for timber, pasture and hay, christmas trees, hazelnuts, nurseries, and specialty products. This corridor is the most productive area for agriculture in the Mohawk Valley. However, about 13% of this land is dedicated to grazing land/vacant lands while only 1.2% is dedicated to small acreage farms and 0.1% is dedicated to orchards, vineyards, and croplands (Natural Resource Conservation Service 1999).

**Approximately 1,482 acres of land in the Mohawk valley are small acreage farms, and about 200 acres are dedicated to cropland**

There are approximately 295 farms and/or ranches in the valley, most near the town of Marcola. The average farm size is less than twenty acres, with a maximum size of around 640 acres. The major crops of the Mohawk valley are timber, hay, Christmas trees, hazelnuts, and hybrid poplars. The majority of agricultural land is hay and pasture production, but crops such as blueberries, mint, and pumpkins can be found in a few places (Natural Resource Conservation Service 1999).

Most of the non-forested agricultural land is under-utilized. The agricultural land typically has low returns and few acres dedicated to high value crops. In the Mohawk River Watershed Assessment, the Natural Resource Conservation Service (NRCS) says, "The total economic impact of the farming and ranching industry is relatively low" and that "Many residents participate in agricultural activities for lifestyle rather than a main source of income." (1999, p. 14). Many of the residents even lose money in agriculture. The majority of residents work in town and only part time on a farm or ranch.

## Livestock

Livestock production appears to have a large impact on the Mohawk watershed. Some of the pastures in the watershed are in flood prone areas, which have the potential to add manure and sediment to the rivers. There are some farm pastures near rivers and creeks that have a build-up of animal wastes that can wash down into the waterways. The NRCS says,

> "On an estimated 80% of the farms, winter feeding takes place on pastures. Wintering on wet pastures causes soil compaction, manure runoff potential, and trampling of forage. On an estimated 4-5 larger farms, stored manure from confined winter feeding areas could affect soil condition and water quality" (1999, p. 66).

Of the 295 small acreage farms in the Mohawk Valley, 20% have pastures and confined feeding areas that directly impact watershed runoff into streams and rivers. Lack of

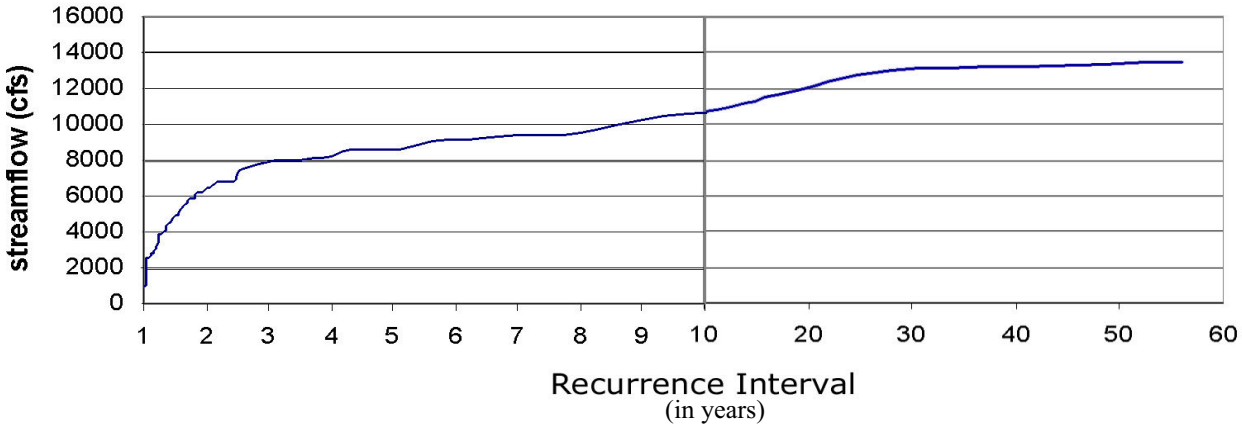
knowledge about proper waste management increases the potential for impacting water quality throughout the valley. Livestock often have direct access to drainage ditches, spring outflows, and from streams, which threatens the integrity of the water quality from these sources. The NRCS says there is a shortage of "good quality water in controlled livestock watering systems that keep livestock away from sensitive riparian areas" (1999, p. 66).

The number of livestock operations in the Mohawk Valley is increasing, but in 1999 livestock operations were made up of thirteen larger beef cattle operations and several small farms with less than fifteen heads apiece. There is one large horse farm with twenty heads and many small places with less than ten heads each. Of these, there are a total of six confined feeding operations (Natural Resource Conservation Service 1999).

## Flood History

Flooding in the Mohawk valley occurs naturally, sporadically, and with varying levels of intensity (*see figure1.1*). Elevated stream levels that cause flooding are influenced by many variables, mainly rainfall, snowmelt, and human intervention. The latter category can include anything from dams to urban development. Whereas dams lessen the effects of flooding, land use practices like deforestation and asphalt surfacing may intensify the magnitude of flooding events

**Figure 1.1:** Flood Frequency Curve for the Mohawk River




*Graph represents 55 data collection points from selected years between 1936 and 2000 at USGS gaging station #14165000 near Springfield, OR. http://waterdata.usgs.gov/or/nwis 3 April 2003. Data assembled into current form by the editor.*

by speeding the rate at which surface run-off reaches the stream system. Major flooding events are often the result of several factors in unison with each other.

The largest recorded flood in the Willamette Valley occurred in 1861. The flooding affected most of the Willamette Valley, including the Mohawk Valley. Other major floods to hit the Mohawk Valley also took place in 1964, 1972, and 1996 (Natural Resource Conservation Service 1999).

During the most recent major flood event in 1996, the Mohawk Valley and its residents suffered significant damage. At one point measured rainfall reached more than two inches in six hours. The heavy rains raised stream levels high enough that 1200 to 1500 people were evacuated from their homes. Significant flood damage occurred along the Mohawk River from Marcola to Springfield. In addition, several fields were flooded, vegetation was destroyed, structures were damaged, streambanks eroded, and the Marcola road was forced to close. The damage in Lane County was recorded at nearly $19 million. Flooding events can also jeopardize water quality and damage fish spawning grounds (US Army Corps of Engineers 1997).

## Flood Mitigation

Relatively little has been done to mitigate flood damage in the Mohawk Valley. Currently, there are no dams or other substantial means of flood control in the area. In the 1940's, the US Army Corps of Engineers identified seventy-eight possible dam and reservoir sites in the Willamette Basin including a reservoir site near the mouth of the Mohawk River. The proposed Mohawk River site was later rejected when considered against other identified sites. A key reason for the rejection was the loss of 4300 acres of valuable agricultural land if the reservoir was built (Hayes 2002; US Army Corps of Engineers 1948).

**… eleven splash-and-log dams were built starting in the late 1800s and early 1900s**

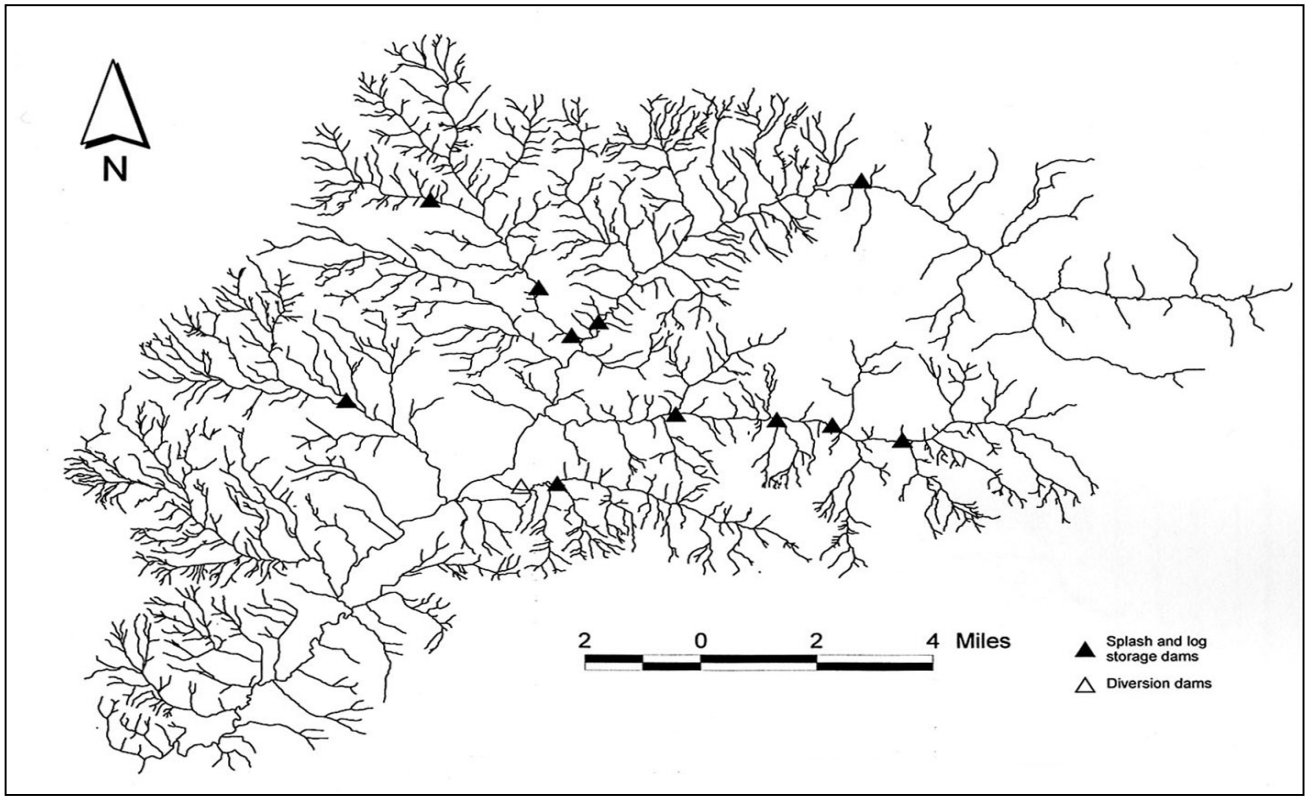
At one time, dams did exist in the Mohawk Valley (*see figure 1.2*). However, these dams were not built as flood mitigation but rather for timber purposes. One diversion dam and eleven splash-and-log dams were built starting in the late 1800s and early 1900s. This series of dams was used to transport logs by flooding areas so logs could be floated

and transported downstream. Between 1894 and 1910 thousands of logs were moved (Huntington 2000).

These dams had detrimental effects on the natural environment. The log drives created by timber companies scoured riverbeds, sometimes down to the bedrock, and damaged riparian vegetation. The dams also blocked migratory fish passages to a substantial portion of the watershed. By 1910, the spring Chinook in the Mohawk River was thought to be extinct. Around the same time, the last log drive occurred. Over time, the logging dams have been removed (Huntington 2000).

Approximately ninety percent of the historic wetlands in the Mohawk Valley have been converted. Currently, three percent of the watershed is either wetlands, flood-prone, and/or has hydric soils (Natural Resource Conservation Service 1999). The United States Geologic Survey maintains one water gage (141615000) on the Mohawk River. Located approximately one and a half miles from the confluence with the McKenzie River, it is the only water gage in the watershed (US Army Corps of Engineers 1997).

**Figure 1.2** Locations of Historic Dams



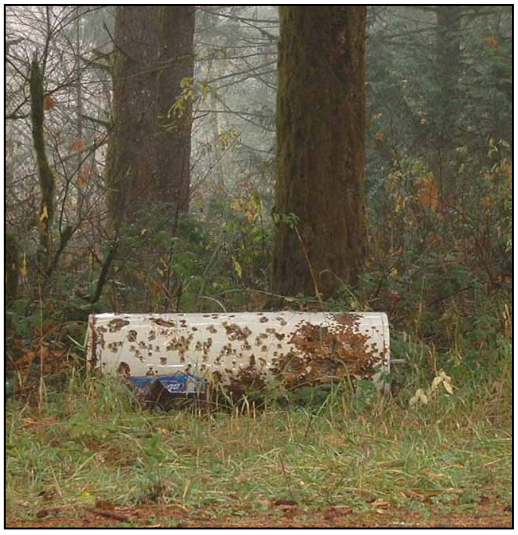

*Source:* Huntington, Charles W. A Supplemental Assessment of the Mohawk Watershed. Canby, OR: Clearwater Biostudies, Inc., 2000. Prepared for the Mohawk Watershed Partnership. p. 29.

Neither the US Army of Corps of Engineers nor any other agency has current plans for flood mitigation in the Mohawk Valley.

## Illegal Trash Dumping

The effects of trash within the Mohawk Valley can be seen throughout the area. Along old logging roads, on the banks of the watershed's rivers, creek, ponds, and on the forest floor, many types of trash can be found that is being illegally dumped (*see figure 1.3)*. These items include old water heaters, couches, roofing shingles, and various items of small litter. Although not as large as discarded household items, small-item litter affects the widest area of the valley. Items like cups, beer bottles and cans, paper products, and a variety of other products can be seen throughout the valley. Although these items are small and do not represent a large impact in itself, the cumulative effect of illegal dumping and littering becomes an ugly and widespread problem.

Residential trash like large, bulky household items is not very toxic but do have their own impacts. This impact is mostly aesthetic. Residential trash threatens the natural beauty of the watershed.



The areas affected by illegal dumping vary from accessible on-road sites to secluded forests. On-road sites have a higher percentage of large household items because it is more accessible. Secluded sites have smaller trash, mainly small-item litter that people are not willing to pack out. An example of this is 'party trash'. Because of the area's proximity to Springfield, it is a popular hangout for teenagers looking to party away from the authorities. This creates a lot of trash like beer cans, bottles, and fire pits (Dean 2002).

The BLM is responsible for cleaning up garbage found along roadways and has tried different ways of preventing trash dumping throughout the valley. There is a local waste facility - Shotgun Park transfer station - where people can pay to have large items like old sofas or beds disposed of properly, but it is cheaper and more convenient for some people to discard their household items illegally. Title III of the Oregon Forest Practice Act created a tax on timber sales, which funds a trash cleanup crew. The county provides inmates from local prisons to work with the BLM to clean up and catalog dump areas. This has been very effective in cleaning up the valley and mapping troubled spots. After the trouble spots are mapped, a trash officer patrols the area to prevent further illegal dumping. If people are found dumping trash and refuse to pick up and remove it, they can be ticketed and fined (Keller 2002).

**The Mohawk Valley is large and lacks the resources needed for enforcement. Consequently, trash continues to build up on logging roads, streambanks, and forest floors.**

This management approach to curb illegal trash dumping has been partially effective. However, the Mohawk Valley is large and lacks the resources needed for enforcement. Consequently, trash continues to build up on logging roads, streambanks, and forest floors. The most effective solution to reduce trashing in this case lies with changing the attitudes and values of those that perpetrate the offense.

## Recreational/Off-Road Activity

Since the turn of the twentieth century, the Mohawk Valley has seen increasing development. Over-harvesting has eliminated many of the old growth forests that covered the land and has left miles of logging roads, fire roads, and clearings that now mark the landscape. Today people use these gaps in the forest for many different types of recreation. It is common to see people driving off-road vehicles, like dirt bikes and all terrain vehicles (ATV), on the old roads and trails in the Mohawk Valley. Riding off-road vehicles is a legitimate recreational activity, which must be practiced safely and responsibly. To this end, the BLM has recognized off-roading in the valley as a recreational activity and has begun managing trails, created a guidebook, and is educating riders on how to ride responsibly (Keller 2002).

Driving off-road vehicles presents complicated issues of personal liability in relation to land ownership. The land within the valley is set up in a checkerboard pattern of private and public land. Therefore, some public trails cross private property (Rice 2002). Because driving off-road vehicles is a dangerous sport, questions of liability arise when riders drive through private lands, putting those landowners at risk.

The natural environment of the Mohawk Valley is impacted when riders create rogue trails that compact soil. As the soil becomes compacted, plants cannot grow and water cannot be absorbed into the ground. This creates a high amount of water runoff over rogue trails. This water collects in low areas on the trail and creates muddied patches. Riders run their bikes or ATV's through the mud, destroying the land around it and affecting the natural environment. It is important for riders to travel on maintained trails to prevent muddied patches and destroyed vegetation from becoming a common feature in the Mohawk Valley (Keller 2002).

To help guide riders, the BLM has compiled five years of trail data into a soon-to-be-published trail guide. This guide will show people appropriate trails, forest boundaries, and common laws that will help the public understand the negative results of creating rogue trails. The BLM, along with the Northwest Youth Corps, has also labeled trails throughout the valley by putting signs up on trees that designate trails and forest boundaries. With the guidance of the BLM, the Northwest Youth Corps also helps maintain off-road trails through leveling, creating drainage areas, and by adding dirt and gravel. Trails that go through waterways are fixed by curving the trail away from the water or by placing large boulders in front of the trails (*see figure 1.4*), preventing vehicles from entering rogue trailheads or riparian areas (Keller 2002).

There has been much progress in protecting the valley while also facilitating off-road recreation. There are currently ten to twenty

acres of old logging roads and fire trails that have been converted into off-road trails. These trails have been mapped and inventoried using global positioning systems, creating the foundation for a trail guide. Better public outreach in the way of informational kiosks are also planned, making the public more aware of the negative results that off-roading has on wildlife and forests, and to help people enjoy off-road recreational activities while acting safely and responsibly.

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