Residents Informing the Planning Process: Pleasant Valley and Its Natural Resources

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Residents Informing the Planning Process: Pleasant Valley and its Natural Resources

Project team: Steve Olson
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March 2000
EXPLANATORY STATEMENT

Planning Workshop, in the Masters of Urban and Regional Planning (MURP) program at Portland State University, provides students with professional planning experience. In teams, students develop consulting contracts with clients for planning services that address regional interests and their own personal and professional interests. The workshop provides experience in planning for constructive social and environmental change, while considering the planner’s ethical responsibility to serve the public interest. The Pleasant Valley project is from the Planning Workshop class of 1999-2000.

Cover Photo: Looking east over Pleasant Valley and the Kelley Creek watershed from a new subdivision on the edge of Portland.
ACKNOWLEDGEMENTS
We wish to thank our clients and professors for the direction and support they gave to us:

Bob Clay, Chief Planner, City of Portland Bureau of Planning
Ivy Frances, Johnson Creek Watershed Manager, City of Portland Bureau of Environmental Services
Jonathan Harker, Long Range Planner, City of Gresham Community Development Department
Professors Deborah Howe, Connie Ozawa, and Ethan Seltzer, School of Urban Studies and Planning, College of Urban and Public Affairs, Portland State University

THANKS TO
George Hough, Center for Population Research and Census, Portland State University
Gresham Historical Museum
Kenneth Ames, Anthropology Department, Portland State University
Leland Gilsen, Archeologist, State Historic Preservation Office
Oregon Historical Society
Pleasant Valley Community Baptist Church
Pleasant Valley Elementary School
Pleasant Valley Grange
Pleasant Valley Neighborhood Association

A SPECIAL THANKS TO ALL OUR INTERVIEWEES
Angie Alsop
Katya Amato
Jack Berke
Mary Biorstadt
John Bliss
Maurice Bliss
Reverend Donna Coon
Hans Hanson
Larry Hanson
Elaine Hemrick
Doug Kato
Dolores Kilby
Frank Knapp
Mary Knapp
Frank Martilla
Bonnie Morse
Don Morse
Jack Ochida
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EXECUTIVE SUMMARY

As a society, we are slowly learning the importance of the interaction between the natural and built environments. We need a new model for planning and development that gives more weight to natural resource considerations than has traditionally occurred in the development process.

An opportunity exists in Pleasant Valley to bring focus to natural resources in future planning efforts by tapping into the local knowledge of residents who know and love the land. Because the area will begin to urbanize in the near future, it is necessary to learn about the area before development occurs or people move away. The purpose of this project was to gather the local knowledge of natural resources and distill it into key findings to guide future plans.

CONTEXT

Pleasant Valley is located in the south central area of Multnomah County, between the cities of Portland and Gresham, and extends into north Clackamas County. The valley is in the Kelley Creek watershed, which is part of the larger Johnson Creek watershed. The valley has gently to moderately sloping terrain, with elevations from 300 to 500 feet, and is surrounded by lava domes and wooded buttes.

Pleasant Valley is expected to urbanize in the next five to 20 years. The recent listing of steelhead and salmon as threatened under the Endangered Species Act, in addition to new regulations to protect the stream habitat and control stormwater, will make development more difficult than it has been in the past.

METHODOLOGY

This project was not a typical planning public outreach effort. The methodology consisted of a series of in-depth interviews, where residents were considered to be experts with unique local knowledge. First, the project examined the area through secondary data, including sources such as Soil Conservation Service manuals and pioneer land claim records. A survey was then mailed to property owners with over ten years tenure. Respondents were interviewed, and many referred us to other residents. Other contacts arose from meetings at local institutions. A contact tree of
referrals developed over time. Interviews were structured to ask about general issues as well as natural resource issues, to avoid missing important information.

**Findings**

There is a strong sense of place in Pleasant Valley. Many residents’ families have lived in the valley for several generations. The community is not as connected as it was in the past, but many still remember the rich local history.

The presence of a compacted soil layer a few feet below the surface of the valley has greatly affected farming in the area. Water cannot infiltrate down, so the top layer remains saturated for most of the year. To make farming possible, residents created a system of underground drainage channels throughout the valley. These channels still exist, and many still function. If a section collapses, water can well up in nearby areas. There has been 150 years of continuous manipulation of water flow in the valley.

Residents have pointed out a number of changes to the creeks regarding geomorphology and flow, water quality and riparian areas. Flows have increased in the winter and decreased in the summer, erosion and sedimentation have increased, and blackberries and fields are replacing riparian forests. The presence of dams also limits the habitat restoration potential. Kelley Creek supported a healthy salmon run in the past, but no salmon have been seen by residents since the 1970s. Resident cutthroat trout, sea run cutthroat trout, and some steelhead can still be found, however.

New subdivisions have caused increased erosion and sedimentation, indicating that current development regulations are insufficient or not enforced.

The wildlife of Pleasant Valley has changed dramatically over the last 150 years. Large carnivores such as bears and wolves have disappeared, bird life has changed, and coyotes have dramatically risen in numbers.

Interviews revealed various environmental concerns. Illegal activities, such as dumping waste and adding fill to land, were reported. There are potential problems from leaking septic and underground heating oil tanks. Pesticides, such as DDT, were commonly used in the past, and some farmland may have soil contamination problems.
RECOMMENDATIONS

The interview methodology is invaluable for finding information not available from secondary sources, while giving planners a new perspective about an area. It brings residents into the process that would not normally have attended public meetings, and should become standard operating procedure to supplement the public meeting process.

It will be a challenge for planners and public officials to find ways to sustain the sense of community in the valley as it urbanizes. One way is to preserve historical and cultural sites. Another is to develop housing for seniors and other institutions for current residents that help keep community connections alive.

The subsurface drainage patterns in the watershed need to be understood before development begins. Interrupting subsurface flows may result in serious unforeseen consequences, such as water upwelling where drainage is blocked, or water flowing onto adjacent properties.

This report recommends that a watershed management strategy be developed for the entire watershed that will be the basis for future land use decisions. A strategy for stormwater must be more comprehensive than simply requiring best management practices on a site-by-site basis. The plan should include an evaluation of the hydrology, subsurface flows, and creek health within the individual subbasins in the watershed, and how these parameters will be changed by future land use decisions. Based on this information a watershed management strategy can be developed which takes into account those subbasins that can best accommodate growth.

Managing surface and subsurface water movement to accommodate growth, while protecting stream habitat and reducing downstream flooding, involves a delicate balancing act. This requires well-reasoned planning and innovative development techniques. The knowledge and experience of Pleasant Valley residents, as well as agency technical expertise, should be actively sought out during the planning process. It cannot be overstated that this type of planning must be at the forefront of the overall planning process. A watershed management strategy superimposed on a development plan has little chance of success.
PURPOSE
As a society, we are slowly learning the importance of the interactions between the natural environment and the built environment. Traditionally, natural resource considerations in planning and development are relegated to the back burner. A new model is essential in the Portland metropolitan area if we are to retain what is unique to the region and the natural beauty that surrounds us. An opportunity exists in the Pleasant Valley area to bring focus to natural resources in future planning efforts by tapping into the local knowledge of those who know and love the land. The purpose of this project was to gather the local knowledge of natural resources and distill it into key findings to guide future plans. This is not a typical planning public outreach effort, rather a method of identifying local experts with specific knowledge of their environment to inform the planning process and enable better decisions about the area’s future.

METHODOLOGY
Data assembled from interviewing long-time residents of Pleasant Valley form the basis of this project. This oral history compilation focused on the land uses and natural resources of the Kelley Creek watershed. The information was gathered to understand how the land and the movement of water have affected the activities of people and how people, in turn, have affected those natural resources. Since the area is being planned for future urbanization, much of this information will not be available if current residents relocate and/or the area’s natural geography changes.

Secondary data were collected from visits to the Oregon and Gresham historical societies and through conversations with agricultural and natural resource experts. The team collected census data, Metsker maps, fish observation data, and a wide range of information to gain as comprehensive a perspective on the history and current conditions of Pleasant Valley as such sources allowed.

The effort to talk with residents began with a mailer that introduced the project and included a qualitative survey, see appendix B - Survey Mailer. This survey was sent out to a targeted audience of 150 landowners with more than 10 years tenure in the study area. In addition, mailers were provided to the pastor of the Baptist Church, members of the Grange, and the principal of the elementary school. Project team members attended a meeting of the Pleasant Valley
Neighborhood Association, where they introduced the project and distributed copies of the survey. Approximately 12 percent of the surveys were returned. They produced some key primary contacts, which in turn led to a tree of referrals.

Over 30 interviews were performed. They ranged in length from 45 minutes to three and a half hours. A list of interview questions was developed; some questions focused on land use and natural resource issues, while others were general enough to allow residents to bring up whatever information seemed relevant to them.

Figure 1. Contact tree of referrals. References from the mailer and organizations led to a series of referrals and cross referrals. This helped identify key informants/experts within the community.
Figure 2. Aerial photograph of Urban Reserve area 5 with creeks, Metro RLIS database.
Figure 3. Pleasant Valley Terrain map, Metro RLIS database
REGIONAL PLANNING BACKGROUND

Metro, the regional agency charged with maintaining a 20-year supply of residential land within the Urban Growth Boundary (UGB), amended the boundary in 1998 bringing in Urban Reserve 4 (Jenne Road area) and Urban Reserve 5 (Pleasant Valley). Pleasant Valley is being planned for urbanization as part of regional growth management objectives. The process of urbanization must address the recent listing of steelhead and salmon as threatened in the Portland metropolitan region by the National Marine Fisheries Service (NMFS). In addition, numerous federal and state policies to address clean water and the cumulative impacts of development place pressure on the future planning activities in Pleasant Valley. This project addresses how the expansion of urban areas impacts the natural environment, particularly in terms of water quality, flooding in Johnson Creek and the issue of endangered species.

Urban development in the valley may not occur until numerous steps in the planning process occur. The first step was completed in 1998 when Gresham and Portland approved an intergovernmental agreement regarding the areas each city will eventually govern. Gresham agreed to take 80 percent of the approximately 1,400 acres and Portland agreed to take the remainder. The second step involves laying out conceptual land use patterns for the area. Metro recently secured a Federal Highway Administration grant for $500,000 to supplement these local planning efforts in Pleasant Valley, but the grant covers all former urban reserves in the eastern metropolitan area, including in the region’s former urban reserve areas of Jenne Road, Damascus and Boring.

The plan will address providing urban services, such as water, sewer, law enforcement, parks and open spaces. The tentative schedule anticipates completing the plan in June 2002. The planning process will continue by determining specific land use patterns, suggesting zoning, and preparing a final funding strategy for providing urban services. This requires a level of planning consistent with Comprehensive Plan requirements for urban areas, and completion is not anticipated until June 2004, pending available funding. Before this time, development of any parcel is regulated by the State. Most significantly, land divisions resulting in parcels less than 20 acres are prohibited.
STUDY AREA CONTEXT

The approximately 1,400 acres of Pleasant Valley are situated in a valley surrounded by lava domes and wooded buttes. The valley is located in the south central area of Multnomah County between the cities of Portland and Gresham and extends into north Clackamas County, see Figure 2. Pleasant Valley is in the Kelley Creek watershed, which is part of the larger Johnson Creek watershed. The elevation of Kelley Creek watershed ranges from 240 feet at the confluence with Kelley Creek to 1120 feet at the top of a butte in the southeast. Much of the valley has gently to moderately sloping terrain with elevations from 300 to 500 feet, see Figure 3. Steep slopes exist in the ravine in the lower reaches of Kelley Creek and on the buttes in the southeast and north central portions of the area. The area receives an average annual precipitation of 50 inches during the winter months.

In 1857 the residents of Pleasant Valley established the first school in Multnomah County outside of Portland. For the next 24 years it was called Sycamore School, Chilton 1996.
EARLY HISTORY

Pleasant Valley was once covered with old growth fir forest with cedar in the bottomlands. There is little recorded archeological evidence indicating how and to what extent Native Americans may have used the land and resources of the Kelley Creek watershed. The groups that most likely roamed the valley included the Clackamas, Multnomah and the Upper Molala. There was a Native American trail that ran from the center of Gresham south through part of Pleasant Valley towards the Lents area of southeast Portland. Fur trappers were likely active in the area as early as the 1810s (Chilton 1996). The first non-native settlement began following the enactment of the Oregon Donation Land Act of 1850. Figure 4 shows how the valley was divided into various Donation Land Claims by the 1860s. Additional information is in appendix C - Native American History. After the 1860s the land was steadily logged and cleared for agriculture. Research and interviews indicate that many settlers practiced subsistence agriculture, and grew potatoes as a cash crop and grain for their livestock.

SETTLERS AND FARMING

It seemed reasonable to expect the older interviewees to recollect events from 60 or 70 years ago, but it was surprising that many knew tales of the early settlers who arrived in the 1850s. Some interviewees were the great-grand children of pioneers and knew the stories as family history. Other residents had heard stories from friends and neighbors. The best known settlers were Stuart
and Caleb Richey. Many residents knew that the Richeys’ land claims were in the center of Pleasant Valley, and that they had donated land for the first school. Some knew that the Richeys had held the first church services in the valley. Many also knew of Fort Coward, a stockade the settlers built on land donated by the Richeys. The fort received its name, they said, because the settlers fled to Portland upon hearing a rumor of an attack by Native American tribes; the fort was never used.

Many residents knew the rough locations of some of the settlers’ land claims, and also knew which claim their house currently stood on. Some knew this because they were still living on land that their families had originally claimed, while other residents who had only lived in the area for 20 years had learned the information from neighbors.

In a similar fashion, many had heard that the settlers relied on potatoes and logging to earn a living, while also growing some hay and grain to feed livestock. They had heard that the settlers had cleared an old-growth forest from much of the valley, and they believed it because they recalled seeing many five to ten foot diameter stumps in the area up until a few decades ago. A couple of residents had heard that the Richeys brought some oak and elm trees with them from Iowa, which they planted near their houses; one resident mentioned that one could always tell if an old house was a Richey family house because of the distinctive non-native trees planted near them.

The stories turned out to be quite accurate. A 1996 history of Gresham and the surrounding area verified the information and provided more background. W. R. Chilton, the editor, quoted letters that Stuart Richey had written in 1853 that described the valley as largely covered with Douglas Fir, and with good access to Powell Valley to the north and to Portland to the northwest along Foster Road. Richey told how he and the other settlers grew potatoes and cut down the fir trees; he also planted an orchard of fruit trees. Chilton mentioned the non-native sour elms and hardy maples that were brought from Iowa by the Richeys, and he verified that the fort had been located across the street from the present site of the elementary school (Chilton 1996).

Chilton included a map of settlers’ land claims in Multnomah and Clackamas Counties, which summarized the land claim records that are available at the Oregon Historical Society library. Further confirmation was provided by records kept by the Pleasant Valley Elementary School; they have an archive of old school records, including the original 1857 journal that was used to
record the minutes of the first school board meetings in the area. The journal included a map of the
land claims established in the valley by 1857.

Many of the roads in the valley were named after the land claims they ran along or across.
Modern residents see reminders of the past whenever they see road signs for Richey, Jenne or
Giese Roads; this has helped keep old memories alive in the area. The settlers left their mark in
another way that is less obvious. Many of the original land claim property lines are still intact in
Pleasant Valley, although the land may have been subdivided several times within those
boundaries as farms were split between several heirs or parcels were sold. The changes in property
ownership and parcel sizes are visible on the Metsker Company Property Maps for Multnomah
County from 1927, 1936, and 1944.

Jane Richey, a daughter of
Stuart, named Pleasant Valley,
Oregon Historical Society.
Figure 4. Map of Settler’s Donation Land Claims, Chilton 1996.
Filbert Hill- The Percy Giese Filbert Orchard. Today the area has been replaced by subdivisions, Chilton 1996.

Berries and Dairies: From the Turn of the Century to World War II

Many of the residents grew up in the 1920s and '30s and recall a landscape of filbert orchards, berry fields, small dairy herds and, of course, stumps. They remembered that their parents had worked hard to clear the forest and remove stumps. The early settlers had cleared part of the valley, but the forest was extensive enough that widespread logging continued until the 1920s.

The land was not very useful for farming until the stumps were removed. Many older residents remember the large five to ten foot old-growth stumps that dotted the area, and many of the men remember helping to remove the stumps. A common method involved a horse-driven winch for pulling stumps from the ground. Others remembered “charcoal pitting” stumps, which involved starting an intense fire and then covering the coals with earth and burning the tree root. A few residents favored dynamite to remove an especially difficult stump. The majority of stumps were gone by the 1940s, but some farmers were still clearing stumps into the 1960s. Chilton verified the extent of the stump problem and mentioned the same removal methods, although he implied that charcoal pitting was a labor-intensive method of last resort (Chilton 1996).

Pleasant Valley remains an unincorporated part of Multnomah and Clackamas Counties to this day, but the center of the valley was once an area called Sycamore. Several residents recalled that a little town named Sycamore existed at the site of the present Grange building. It consisted of a post office, feed store and gas station. Many residents did not remember a post office built in 1889 near the present site of the Grange hall. The first postmaster was from West Virginia, the Sycamore State, and named it the Sycamore Post Office (McArthur 1992). The Sycamore name was used widely for a time in the northern end of the valley. The school was called Sycamore School, Southeast 162nd was called Sycamore Road until around 1930, and the trolley station just north of the valley was called Sycamore Station (McArthur 1992). The post office was closed in 1901 and the name has gradually faded from use in the valley. Today few people remember the town that almost was.

The peak of farming in Pleasant Valley probably occurred in the years before World War II. Several residents remembered that the northern area near Gresham was called Filbert Hill because of the large filbert orchards. However, the most common crops in the valley were probably berries. Older residents remember raspberries thriving in most parts of the valley, although one resident mentioned that they did not grow well on the western edge of the area. Strawberries, blueberries and blackberries were also widely grown. Some residents recalled that their parents
had belonged to the Gresham Berry Growers' Cooperative. During harvest times the cooperative would open a drop station in Pleasant Valley, where growers could cart their berries instead of having to truck them into Gresham. There are no agricultural statistics to verify this information, as records were aggregated at the county level. Chilton, however, mentioned the nut orchards on Filbert Hill, and included an extensive description of the Berry Growers' Cooperative. Chilton said that the cooperative closed in the 1960s as berry growing declined in both Gresham and Pleasant Valley (1996).

Many residents recalled that small dairy herds were a common sight. A typical operation in the valley consisted of 10-15 cows. Some remembered a larger dairy on Baxter Road for a few years, but it closed in the 1930s or '40s. Some residents remember buying milk from neighbors. One farmer mentioned that his father sold his small dairy herd because health regulations made small operations unprofitable. The aggregated county data could not verify the extent of dairying in Pleasant Valley, and unfortunately the Food Safety section of the State Department of Agriculture does not keep dairy inspection records for more than a few years. However, many residents corroborated each other's accounts that small dairy operations were common in Pleasant Valley during the first half of the century.

Besides dairy operations and berry farms, some interviewees remembered scattered chicken and turkey ranches in the valley during the 1940s and '50s. It was more common, however, for families to raise a few chickens for personal use, as well as a few cows and pigs.

The Depression years were hard in Pleasant Valley, as elsewhere, but several residents mentioned that they thought they were better off than city dwellers because they could at least grow their own food. Some mentioned that they always had enough to eat, and that they gave away surplus food to friends living in the city. Many residents remember the Works Progress Administration (WPA) crews building bridges and lining Johnson Creek during the depression. Residents are proud of the work WPA did at the elementary school in 1939. This information was widely corroborated in interviews, and is mentioned in Chilton (1996).

Many residents recalled the men of the valley taking jobs in the Kaiser Shipyards in Portland during the war. One resident remembered that the shipyards even sent a bus down Foster Road to pick up workers in the morning and return them in the evening. The resident thought that the bus,
combined with the trolley line that ran north of the valley between Portland and Gresham, represented the high point of public transit in the history of the valley.

There was a small group of Japanese-American farmers in Pleasant Valley at the start of World War II, and some still live there today. One resident remembered the wartime internment of his family vividly and recalled how upset he felt at having to leave their house and land. Many older non-Japanese residents remember the internment of their neighbors with great sadness. They thought that the Japanese-American farmers had been well accepted by the community and widely respected as farmers. They had specialized in vegetables such as cabbage, broccoli, cauliflower, brussels sprouts, and onions, which they would truck into Portland. Rice wine, or sake, was also occasionally produced, even during Prohibition. Most older residents were glad to see their Japanese-American neighbors and friends return after the war; there was a true feeling of community in the valley that was able to bridge racial differences during a difficult time.

The shift by some residents to factory jobs and the internment of the Japanese-American farmers probably served to de-emphasize farming in the valley for a time. Another factor that may have discouraged farming was that the land ownership pattern became increasingly fragmented over time. In the late 1850s the center of the valley was split into roughly ten large land claims, ranging from 160 acres to 320 acres. Property ownership maps show that by 1927 there were over 150 parcels in the area. A few were larger than 50 acres, many more were 20-30 acres, and the majority of parcels were in the five to ten acre range. A 1936 map shows that the trend towards subdividing parcels continued. There were roughly ten percent more parcels than in 1927, and the new parcels were generally five to ten acre lots. A 1944 map shows that more small lots were created, and the total number of lots had increased by roughly five percent. An opposing trend was also sometimes evident; a couple of farmers had managed to buy other parcels adjoining their own and had recreated some larger parcels by 1944. One resident mentioned that if farmers had followed the English custom of handing down the land intact to the eldest son then farming might have been more profitable in the valley. As the land became split into smaller parcels, however, it forced active farmers to buy or rent land wherever available. This often resulted in parcels scattered across the valley that were hard to farm efficiently. The fragmented ownership pattern did not stop farming in the valley, but it did make it more difficult and less efficient.
Transition from Farming to Suburban/Exurban

Interviewees generally agreed that farming began to decline in the 1950s, and that most people had stopped farming by the 1970s. The agricultural data is aggregated at the county level and so cannot directly verify when commercial agriculture waned in the valley, but many residents corroborated the general timeframe.

The residents suggested many reasons for the decline of commercial agriculture. Some thought that most parcels were too small to farm profitably, and that young people who wanted to farm simply did not have enough money to buy several parcels. Others blamed increasing property taxes. Farm tax rates were set low, but land valuations rose over time. As the children of many old time residents grew up they worked toward careers other than farming. The older residents did not blame the young generations because they thought that middlemen now made all the profits that used to go to the farmers.

Another factor in the decline of farming was the continued fragmentation of land ownership over the second half of the century. Comparing today’s land ownership map to one from the middle of the century shows that the number of parcels has significantly increased, and that most of the new parcels are small two-acre pieces, see Figures 5 and 6. Smaller parcels are harder to farm efficiently, but very small two-acre parcels signify a change in land use from farming to rural residential. These parcels essentially remove land from the pool of available farmland, and create potential conflicts for farmers who continue commercial operations near non-farming neighbors. Some residents stated that the area had become suburban, or exurban, over the last few decades. More non-farming residents took land out of production, making life more difficult for the farmers that remained.
Lot Size Distribution

Lot Size

Lot Size Distribution

Pleasant Valley and its Natural Resources - Page 21
Some residents mentioned another reason for the valley's growing suburban character: it is just not as isolated as it used to be. Wider roads and highways have made the trip into Portland and Gresham much faster than in the past. Many residents mentioned that they used to travel into Portland on the trolley for special occasions, such as the Rose Festival Parade, but that they did not travel that far often. One person remembered that driving to downtown Portland in the 1940s might take up to an hour, while today it takes just over 20 minutes during periods of low traffic. The improved access to jobs outside the valley no doubt led some farmers to become ex-farmers and some city dwellers to move to the valley and become long-range commuters.

Many people said that the most common form of farming in the valley today was to keep a few beef cows in a pasture for personal use. Commercial farming did not completely stop in the valley. Several large nurseries, which some residents mentioned, came in during the 1970s as the old-time farmers were closing down operations. One nursery on Richey Road is especially active. The nursery specializes in broadleaf deciduous plants, evergreens and conifers on its 63 acres. There is also a commercial llama ranch at the southern end of the valley. Several riding stables have closed, but there is still a horse boarding/breeding stable. There are few commercial farms left in Pleasant Valley, and they are fairly specialized. The many farms that grew common agricultural commodities have disappeared.
One other side effect of the decline of farming has been the spread of blackberries. Several interviewees said that when the area was actively farmed, the blackberries were kept down. A few residents remembered their parents farming the Himalayan blackberries commercially, but they never imagined that the non-native plant would spread so quickly.

Some of the last logging in the valley occurred in the late 1970s, when a grove of old-growth cedars was cut along the western part of Kelley Creek near the confluence of Mitchell Creek. The resident who mentioned this recalled playing in the grove as a child and another remembered a mud slide along the stream bank with a small swimming hole below. It was a favorite picnic spot because the dense shade kept down the undergrowth and provided a natural park where one could walk along the banks of the creek. The tree trunks were eight to ten feet across, and the resident thought they were 300-400 years old. When the trees were cut, the undergrowth and blackberries replaced them. The resident said that it was now impossible to get to the creek bank in that area.

**A SENSE OF PLACE IN PLEASANT VALLEY**

A key theme that arose from the interviews was that there is a real sense of place in Pleasant Valley. Many residents are familiar with the history of the farmers that came before them and how they used the land. Sometimes the stories are passed down within families, and sometimes they are passed from older residents to newer residents; the point is that the connections are still there. Institutions such as the Grange, Elementary School, and Community Baptist Church also still serve to connect the people of the valley together. It is true that the community ties have faded over time; one life-long resident blamed too much television. That resident still knew her neighbors, however, and said that they could count on each other in an emergency, if ever the need arose.

In the past Pleasant Valley was a strong community of people where “everyone knew everyone.” They could depend on one another in times of need and often did. Bartering was a common practice in this community. For example, the local well driller drilled a well for another resident in exchange for clearing the stumps from his property. Residents felt that it was an honest community where people trusted one another. One family that owned a chicken ranch used to leave eggs out and a change basket when they went away. When people needed eggs they simply took them, left money and made the correct change. Many of the residents are sad to see the changes that have taken place in Pleasant Valley.
Springers Dance Hall
A world class dance hall in Pleasant Valley? Most residents are still amazed that Springers even existed. Started by Aaron Springer, it became the largest dance hall in the metropolitan area. One story says that Mr. Springer was a very intelligent man and invented the collapsible ironing board. He gave up chicken farming and used the royalties from his invention to convert a large chicken barn into a dance hall. Residents remember that it looked like a chicken barn on the outside, but inside it was a lavish dance hall nicer than anything in Portland.

Many residents miss the quiet and lament the increased traffic. They also fear the new subdivisions recently built on the edges of Portland and Gresham are a sign of times to come. The development encroaches on their way of life and some of their motivations for living in the valley. The older residents have seen the most change yet tended to be pragmatic about the probable urbanization of the area; perhaps this is because they knew the valley as a working landscape and expect the land to be used by somebody. Newer residents seem to have moved to the area to be close to nature and for the sense of space. As one long time resident said, “This has been my home on the farm since I was four months old. I have seen a lot of changes, and if it weren’t for greed – this would still be a pleasant valley.”

There are a variety of opinions in the valley concerning how quickly change will come and exactly what form it will take. Two things were universal among all the people that were interviewed during the course of this project – a strong affection for the place where they live and an awareness of the inevitability that change is coming. There are some that would like to sell land and seek the country lifestyle someplace “farther out.” There are others, however, that will do what they can to help make Pleasant Valley continue to be a special place. These people should not only be invited to participate in the planning process; their knowledge and experience should be actively sought out.

The challenge for planners and public officials will be to find ways to build on the sense of community as the area urbanizes. The area will change dramatically, but it would be a loss if the identity of Pleasant Valley disappeared like the town of Sycamore. The Grange is key to the valley’s identity and should remain an active center for community gatherings. Another possibility to retain a sense of place and educate the next generations would be to support the elementary school in creating a historical museum out of their archive materials. Another suggestion is to encourage senior housing in the valley. Many older residents mentioned that their friends who needed assisted living or nursing homes usually had to move to Gresham or Portland, isolating them from the community. Including senior housing within a broad mix of housing types would offer more housing options to existing residents and might help keep community connections alive while the area transitions to an urban neighborhood. Finally, it is critical to preserve a sense of place in order to maintain a sense of stewardship for the natural environment. Conversely, preserving the natural environment will help to maintain the sense of place that has helped foster a deep respect for Pleasant Valley.
The Grange

In 1902 the social and cultural center of Pleasant Valley was founded and it endures to this day – the Grange. The Grange was started as a community organization to promote agricultural activities in the area. It is still currently active, but plays a lesser role in the social lives of residents at its current location on Foster Road at Southeast 172nd. Today the Grange is home to the neighborhood association meetings, occasional potlucks, and karate lessons for kids.
NATURAL RESOURCES

SOILS AND GROUNDWATER
CREEKS
FISH
VEGETATION AND WILDLIFE
ENVIRONMENTAL REGULATIONS AND
CONCERNS

SOILS AND GROUNDWATER

Adapting to the Seasonal High Water Table
Interviews revealed that the presence of a seasonal high water table has been a dominant feature affecting how people have interacted with the land over the past 150 years. The high water table results from high rainfall and a compacted soil layer (fragipan) one to three feet beneath the surface. This layer, referred to by valley residents as the clay layer, restricts downward movement of water into the soil, creating a perched water table on top of the fragipan. Water can move laterally through the upper soil layers, but not quickly enough to keep pace with precipitation. As a result the soil remains saturated during rainy months and excess water moves overland as runoff, if drainage is not provided. Residents report this condition exists throughout most of the valley.

Changes in Hydrology
When early settlers began logging the old-growth forest, both the surface and subsurface hydrologic regimes were drastically altered. The giant trees drew large quantities of water from the soil and provided a thick canopy that intercepted some of the rainwater. The upper organic duff and humus layers soaked up water that reached the forest floor and helped it infiltrate into the
soil more gradually. When trees were removed by logging and organic layers removed by agriculture, the soils became more readily saturated. The disturbed saturated soil quickly turned to mud.

Tile Drainage Systems
Saturated soils caused by the presence of the fragipan, together with the high rainfall in the area and lack of tree canopy, have resulted in persistent problems for farming in Pleasant Valley. Muddy ground makes it difficult to prepare fields for spring planting. The upper soil layer is also subject to clodding when wet, making it even more difficult to work. This clodding, however, reduces the erodability of this soil (SCS 1983). Saturated soils cause seed or young root tips to rot and potatoes will rot and die if flooded for more than 24 hours (Blake 1975). Several residents previously engaged in berry farming report that the roots of raspberry plants will rot without sufficient drainage. Root rot in perennial crops can have consequences that can last for years beyond the initial damage.

Early farmers in Pleasant Valley devised ways to deal with the saturated soils. Two longtime residents described a subsurface drainage technique that was in common use when they were children. Ditches were dug down to the clay layer. Cedar shakes were placed at angles to each other in the bottom of the ditch. Sometimes a channel was dug into the clay layer and covered with cedar boards. The ditches were then backfilled, leaving a small tunnel in the soil that drained water from the surrounding soil. Hay or pine needles were often placed on top of the cedar before back filling to filter the water until the soil around the tunnel stabilized. Tunnels were placed at a slight angle to the contour to allow water to flow. These lateral tunnels fed into central collectors, which in turn flowed into a creek or large open ditch. The spacing of the lateral tunnels depended on the drainage needs of the particular site. Water often continued to flow through these subsurface channels long after the cedar rotted away. One current resident unearthed a hollow cedar drainage pipe that he dates to the early 1900s.

Farmers would add to and adapt their drainage systems as new land was brought into production and as land uses changed. Clay tile became available in the area during the first half of the twentieth century and replaced cedar for constructing drainage systems, but the process is much the same. This type of subsurface drainage system is known as tiling. According to long time residents, tiling was a necessity for most types of agriculture in Pleasant Valley. Only on the
steeper slopes at the edge of the valley could crops such as raspberries, potatoes and onions thrive without tiling. Tiling is also necessary in areas where livestock is raised to prevent the soil from turning to mud under the weight of the animals’ hooves. Residents report that tiling has been used on most properties throughout the valley. During the 1950s through the 1970s the Soil Conservation Service (SCS) offered technical and financial assistance to install tiling systems. However, residents report that few landowners took advantage of the assistance because most of the valley was already tiled.

While some older tiling systems are no longer maintained, they still play an important role in subsurface water movement. One resident describes “glory holes” as common in areas that were tiled. These holes occur where the tile collapses on one end and blocks off the low side. Water coming down the hill would bubble up and wash out the dirt creating a hole. The water then flows out of the hole along the ground and sometimes goes back under ground in a molehill or back into the original tile. He says there are at least a half dozen glory holes in his neighbor’s yard alone.

Some residents report installing French drains around their house in order to channel water away from the foundations. Sump pumps are common in houses that have basements while other houses were built without basements due to the seasonal high water table. In the lower, flatter areas, near Southeast 172nd, residents noted problems with standing water. However, where there is sufficient slope to direct runoff, standing water is not a problem. Some residents describe the shallow water table as a persistent problem. Other residents that have grown up around it see the high water table as a fact of life in the valley. The degree of difficulty residents have in dealing with shallow ground water depends on their relative position in the valley, the functionality of the tiling and other drainage systems affecting their property. Tiling systems were often installed prior to the subdivision of lots so drainage systems will not always conform to current property boundaries.

While the soils contain excessive moisture in the winter months, they can become extremely dry in summer. This is due to the shallow surface soil layers limiting the amount of water that can be retained for plant growth during the dry season. The fragipan limits the ability of deeper ground water to move toward the surface through capillary action. Nursery growers and farmers in Pleasant Valley use well water to irrigate their crops in the summer due to these conditions. This lack of capillary action will require extensive irrigation if traditional lawn and garden techniques are used.
Soil Characteristics

The soils throughout most of Pleasant Valley are classified by the SCS as cascade, cornelius and powell silt loams, see figure 7 for a map of soil types. Typically, the surface layer is dark brown silt loam about eight inches thick. The cascade soil type has a subsoil layer of dark brown silt loam and is generally 19 inches thick. The cornelius soil type has a subsoil layer of dark brown silty clay loam and is generally 25 inches thick. The powell soil type has a subsoil layer of dark brown mottled silt loam generally about eight inches thick. All these soil types are underlain by a substratum of dark brown mottled, silt loam fragipan to a depth of 60 inches or more. The permeability is slow on these soils and effective rooting depth is from 20 to 40 inches (SCS 1983). The SCS Soil Survey of Multnomah County confirms “the main limitations for urban development are a seasonal high water table, slow permeability, 20 to 40 inch depth to the fragipan and low strength.” The manual recommends that dwellings and roads must be designed to offset these limitations. Excavating during the summer months is difficult because of the strongly compacted fragipan. The document further states that septic tank drainage fields do not function properly during rainy periods because of wetness and slow permeability of the soil. Finally, drainage is required for best results with lawn grasses, shade trees, ornamental trees and ornamental shrubs (SCS 1983).

The descriptions of the soils by valley residents are generally consistent with that of the SCS, however, residents refer to the fragipan as the clay layer. They report this layer extending to 30 feet or more in many areas. Additional information was provided by a local well driller. He reports blue clay, gravel and lava rock down to around 100 feet in many spots.

Wells

Among the people interviewed for this project was a second-generation well driller and a lifelong resident of Pleasant Valley. He provided valuable information about wells, deep ground water, and soil and rock substratum. Hand dug wells with manual pumps (30-40 feet deep or so) were common at turn of the century. In the 1920s drilled wells became more common. Electric power was installed down Foster Road around 1910, and extended to the rest of valley around 1940 due to the Rural Electrification Act. Electric pumps then began to replace hand pumps. Currently, most wells are over 200 feet deep. It is possible to get enough water at 30 feet in some locations,
Figure 8. Pleasant Valley Soil Types, Natural Resource Conservation Service.
but there is too much mineral in the water. The well driller said that the water table has dropped 15-20 feet in the last 30-40 years. As a result, he had to redrill and deepen many wells in the area. While some residents have not noticed a change, most confirm a drop in the deep groundwater table.

Local Knowledge
Subsurface drainage patterns in Pleasant Valley are intricate and often subtle. They result from the natural topography of the substratum and 150 years of incremental manipulation by valley residents. The expertise of valley residents in understanding these systems is derived from day to day experience interacting with the land and water. Knowledge of these modifications spans many years and often multiple generations.

CREEKS
Residents in Pleasant Valley have pointed out a number of changes to the creeks in the Kelley Creek watershed regarding creek geomorphology and flow, water quality and riparian areas. Specifically, flows have increased in the winter and decreased in the summer, erosion and sedimentation in the creeks have increased over time and blackberries and fields are replacing riparian forests.

Riparian Changes
Prior to settlement, the riparian areas of Kelley Creek and some of its tributaries were dominated by maples, cedars, douglas firs, alders, and sword ferns. Residents remember seeing this type of vegetation along with vine maple, dogwood and hazel brush. Much of the native riparian vegetation along Kelley Creek and its tributaries was lost as the valley was settled. Traditionally, farmers cleared the land all the way up to the banks of the creeks. Some continue to plow or farm up to the creek banks or keep the banks clear of vegetation. Others leave berms of blackberries along the creeks. One resident described a grove of cedar trees, roughly 300-400 years old, with a dense canopy along Kelley Creek near the confluence with Mitchell creek. This last remaining grove of old growth trees was cut in the late 1970s to make way for a truck farm. Nevertheless, some healthy riparian areas still exist in the watershed. This suggests that with some...
encouragement, riparian areas could be restored to previous conditions. Numerous residents stated they were anxious to begin the process of bringing back the beauty of the creeks and the fish to the way they remember as children.

Changes in Creek Flow
A common theme with residents over the past 50 years is that certain creeks once ran year round are now running dry during the summer months. Farmers used to water their cows and horses in the creeks that were spring fed. Two residents remember as children collecting water from two springs along the tributary near McKinley Road, before well water was available. These springs have dried up and the creek is now usually dry in the summer. Some speculate that water levels have dropped because more houses are tapping into the ground water upstream. One longtime resident speculates that the springs dried because the trees were cleared. Research indicates that the hydrologic cycle is significantly altered after land is cleared. In forests, rain is absorbed by leaf litter on the ground and allowed to slowly infiltrate and recharge the groundwater that feeds the springs. Removing trees causes the water to runoff quickly and does not allow it sufficient time for rain to infiltrate into the ground (Frances 1999).

Residents have noticed increases in wintertime storm flows in the creeks. Some blame it on increases in development on the edge of the watershed. One resident explained that subdivisions built recently upstream in Gresham brought excess stormwater filled with construction debris downstream during development. Recently, a piece of plywood blocked the culvert that runs underneath his driveway causing the creek near McKinley Road to flood its banks. The stormwater was also overwhelming the drainage ditch along 182nd and flooding the road. Multnomah County responded by diverting stormwater into a pipe that flows along 182nd and discharges directly into the creek where it crosses under 182nd (Kirby 2000).

The increased flows are also causing severe erosion along the banks of Kelley Creek and its tributaries. Residents explained that previous generations cleared the stream channels and banks of debris to encourage the water to move off the land quickly. Residents also tried to stabilize creek banks with concrete and other available materials. The result of these activities has been a deepening of streambeds so that in many locations they are now impassable by cows or people. Several residents reported placing logs in the creeks in an attempt to slow flows and decrease erosion.
Water Quality

“This creek used to be crystal clear” was a common saying from long time residents in the valley. Many have noticed that over time sediment levels have increased in Kelley Creek and its tributaries. Some attribute this to agricultural practices. One resident observed that the bed of the creek that crosses under McKinley Road has been filled with sediment deposited from agricultural runoff. A pond he created in the creek filled up with sediment and eventually disappeared. However, many residents believe that erosion from new construction is causing increased sedimentation. The Hawthorne Ridge development has been cited and fined by the Department of Environmental Quality (DEQ) numerous instances in its history of development. Residents recall runoff several inches deep and laden with sediment crossing 162nd Avenue. Another resident described the creek below the Gresham subdivision as “chocolate syrup” during construction. Water quality tests performed on Kelley Creek and some of its tributaries in the fall of 1999 confirmed that from west of the culvert at Richey Road until its mouth, Kelley Creek had high concentrations of fine sediment. These concentrations decrease closer to the upper, forested headwaters of the creek, near Southeast Alder Ridge Road (Harza 2000).

While it is difficult to pinpoint exactly where pollutants originate, residents discussed historic water quality issues. Throughout the first half of the twentieth century, dairies discharged large quantities of animal waste into the creek. Public places, such as Springers dance hall and the elementary school, dumped sewage directly into Kelley Creek and its tributaries. One resident remembers playing in the creek behind Springers and “waddling around in the sewer.” Even today, during the rainy months, overburdened residential septic systems contribute to water quality problems due to the low permeability of the substratum.

Recent water quality studies indicate that Mitchell Creek, along with the tributary at 182nd have high levels of E. coli (Harza 2000). One resident pointed out that Mitchell Creek was contaminated by raw sewage from the Happy Valley mobile home park on Southeast Clatsop. According to DEQ, complaints were made in the early 1990s concerning raw sewage in the creek. The septic tank for the mobile home park was leaking but has since been repaired. The tank is monitored closely by DEQ and plans are being discussed to connect the mobile home park to the sewer system for either Clackamas County or the City of Portland (DEQ 1999a). However, it is possible that sewage contamination has lead to the high E. coli counts in Mitchell Creek.
Kelley Creek was channelized and lined with stone from its mouth until it first crosses Foster Road. In the 1930s, the WPA channelized extensively in Johnson Creek and approximately 355 meters of Kelley Creek (ODFW 2000). Residents explain that the WPA took six months to "clean out" the creeks. Another change in the stream geomorphology, possibly of WPA origin, is the addition of concrete steps about ten feet tall in the creek just downstream of the culvert at 162nd (ODFW 2000).

One resident gave an account of trout turning up dead in the creek along his property. A landowner operated a dump upstream in the 1960s. The dump caught fire for several days in 1965 and shortly thereafter all of the trout in the stream died. Around the same time, a family started to build houses on their property higher in the watershed. Before the 1960s, the creek was crystal clear despite cows gazing in and near the stream. Since the fire and development upstream, the creek has had an unexplained milky color.

While no testing has occurred on Kelley Creek east of 190th, the spring fed water in this area were once very clean and clear. In the mid 1960s the creek developed a milky haze. A resident speculates that the contaminants came from a nearby dump in the creek’s headwaters, or possibly from development upstream. The resident recalls a fish turning up dead in Kelley Creek following a fire at the dump. The dump is now covered with soil and is overgrown with vegetation.

Johnson Creek and its tributaries are listed by the Environmental Protection Agency as “water quality limited” in at least one category (DEQ 2000). This confirms residents’ concerns over water quality. Specifically, water quality tests were conducted below the culvert at Richey Road. High concentrations of phosphorous and low counts of macroinvertebrate species, a common indicator of stream health, were found (Harza 2000). Testing in the upper headwaters of the creek, near Southeast Alder Ridge Road, indicates that temperature, levels of dissolved oxygen, phosphorous, nitrate and E. coli are within an acceptable range for aquatic health, but this area is less developed than the lower portions of Kelley Creek. Macroinvertebrate counts were also slightly higher in the upper reaches (Harza 2000).

The shift from old growth forest to agriculture and residential development has led to extreme changes in the aquatic environment in the Kelley Creek watershed. These changes are often subtle. In some areas of the watershed the system has begun to heal itself and provide key habitat for aquatic species while other areas remain severely degraded. In order to maintain and improve on the health of the aquatic environment, while accommodating future growth, it is critical to thoroughly study the hydrologic changes and understand which areas of the watershed are essential for sustaining the health of aquatic species.
FISH

Long time residents all confirmed that Kelley Creek was heavily populated with salmon and trout into the 1950s and provided spawning grounds for salmon. Residents suggested a number of factors contributing to the decline of salmon populations. While residents have not seen salmon since the 1970s, the creek still supports a trout population.

The Kelley Creek watershed once supported large populations of salmon and trout. Area residents have strong recollections of fishing in the creek and seeing spawning salmon work their way upstream. The salmon were so plentiful they would swim up the drainage ditches along 190th. As one resident stated, “you could catch 15 or 20 (salmon) pretty fast.” Before Springers was a dance hall, it was a chicken farm. Residents recall Mr. Springer pitchforking salmon directly from the creek into the chicken coop. A resident remembers catching one with a pitchfork as a young girl and bringing it home for her family to see. Other residents used to pitchfork salmon from the creek to spread around berry plants as fertilizer. In the spring, Kelley Creek was black with newly hatched salmon fry, and one resident recalls that there were “zillions” of them.

The last time people remember seeing the creek thick with salmon was in the 1950s, and the last time residents remember seeing any salmon at all was in the 1970s. The Oregon Department of Fish and Wildlife (ODFW) reported two recent observations of adult steelhead and another of sea-run cutthroat trout. All the observations were in Kelley Creek near the confluence of Johnson Creek with none were reported upstream in Kelley Creek. This indicates that Johnson Creek is passable by salmon, but that impasses and a lack of habitat still present problems upstream in Kelley Creek (Caldwell 2000).

Residents’ reasons for the decline in runs have varied, as well as the desire to see them return to the area. Some believe that the WPA work of clearing the streams of debris and lining them with rock caused the fish to disappear. One person speculates that the presence of blackberry bushes in the creek creates an impasse for fish. Some residents point to the numerous private dams that have been added by property owners as a major obstacle to fish passage. Many residents agreed that development is the main culprit for declining runs. As more and more residents have moved into Pleasant Valley, the amount of sediment and runoff into the creeks has increased.

ODFW confirms that these reasons as well as other factors may have contributed to the decline of salmon. These include the removal of riparian vegetation, the accumulation of pesticides in
surface runoff, increasing stormwater flows as a result of tile drainages, and the presence of overflowing septic tanks (Caldwell 2000).

Residents have mixed feelings over whether culverts in Kelley Creek have been a considerable impediment to fish passage. One resident gave a detailed account of salmon jumping several feet up into a concrete culvert under 190th Avenue. The culvert passes under two lanes of road and a sloped bank that goes down 20 - 25 feet. In the spring, the culvert cannot accommodate the flow and the river backs up behind 190th. Yet, trout from the stocked portion of Kelley Creek property have made the journey in recent years.

By the time salmon reached Kelley Creek they were spawning or had already spawned and as a result were beginning to decay. Therefore, most fishermen angled for the sea-run cutthroat trout. Trout continue to be common in Kelley Creek today although their numbers are less than in the 1950s. ODFW recently observed sea-run cutthroat trout at the confluence of Kelley and Johnson Creek. ODFW also reports that about five years ago a large number of Resident Cutthroat Trout were spotted upstream of the culvert at Southeast 162nd (Caldwell 2000). One year a resident stocked Kelley Creek, behind his house, with trout and they have been making the journey upstream instinctively. However, this resident has also seen trout in the creek that were not stocked.

Despite the near disappearance of salmon in the creek, it has the potential to support healthy populations in the future as it did in the past. Nearly all the residents recall seeing plentiful salmon, but some questioned the importance of returning the runs. The City of Portland has the desire to be the first city to successfully restore an aquatic species under the Endangered Species Act. But it will require the will of the region to work together and a strong desire on the part of all property owners to restore habitat. Pleasant Valley offers a unique opportunity to place the restoration of salmon as a priority in the upcoming planning process.

**WILDLIFE**

The wildlife of Pleasant Valley has changed dramatically over the last 150 years. When white settlers first arrived in the valley, they found a land with large carnivores such as bears, wolves and mountain lions roaming the area. The large carnivores are now gone from the valley, while raccoons, coyotes and birds are now predominant. Overall, most wildlife in the valley has
decreased over the years. Many recent residents were drawn to Pleasant Valley for the wildlife and the quiet, and lament the loss of the animals.

**Hunting**

Hunting is a common rural pastime. Residents often trapped foxes, raccoons, skunks, muskrats and moles. Rabbits were popular sport with the children, who would hunt them with BB guns and 22s. One long-time resident opined that the valley used to have plenty of pheasant, quail and rabbits, which people liked to hunt. He frequently hunted pheasant and quail until the 1970s. But he stopped hunting when the rural area became more populated, the game became scarcer, and hunting became a nuisance to neighbors. Several residents explained that the pheasant and quail population has declined since the 1970s. They explained that the berry fields provided food and shelter for the birds. But as the fields disappeared, the pheasant and quail disappeared.

**Bird Life**

One class of wildlife that appears to not have declined in the valley is the songbird. Indeed, some residents believe that birds are more abundant than they used to be. Many kinds of small birds abound, such as the redwing blackbird. There are many mourning doves, finches, and swallows. Owls fly overhead in the early evening and roost in area barns. One resident told how she often sees birds of prey such as eagles and hawks in the valley. Pheasants and quail are still spotted, although residents differ on how often.

Water birds were also common. One long-time resident explains how ducks and geese were often seen on the pond on the family farm. Mallards, Canadian geese and blue herons are also common in valley wetlands. But waterfowl are perhaps less common than they used to be in the face of gradual development. A resident explained that she used to see ducks and an occasional blue heron in a wetland that was next door, but birds disappeared after the wetland was filled.

**Problem Wildlife**

Numerous residents complain of the difficulty raising chickens and other poultry, because coyotes, foxes, raccoons and weasels often prey on them. The increase in coyotes seems to be the most noticeable problem species that residents have seen. Coyotes in large numbers are new to the
valley. One resident saw a pack as large as 20 coyotes and pointed on a map to a den in the center of the valley. He recalled that his parents didn't have problems with coyotes eating the turkeys his family raised. But over time the coyotes learned that turkeys and chickens were easy prey. They are also bolder, moving closer to residents' yards in recent years, and noisy, especially at night when they travel in packs.

These problems with wildlife will likely continue with increased urbanization. More deer are killed on the busy roads of Foster and 190th each year. Reduced habitat may result in fewer waterfowl visiting the valley, as well as fewer birds of prey and other animals that are part of the Pleasant Valley identity. To preserve current levels of wildlife, it is important to set aside wildlife habitat as the valley urbanizes. Future planning may require riparian buffers for Kelley Creek and some of its tributaries to reduce stormwater flows and protect water quality for endangered species. If this is done, these riparian buffers could serve the additional function of providing wildlife corridors. This would allow existing wildlife in the region to travel among different habitat areas, enhancing their chances of survival.

**Environmental Regulations and Concerns**

Various environmental concerns have been revealed in the interviews with valley residents. Residents are often willing to report the activities of neighbors that may have an impact on neighbors' wells, air, and general wellbeing. An often-cited complaint of interviewees was illegal activities of some neighbors, such as dumping waste and adding fill to land.

**Oil Tanks - Septic Tanks – Waste Disposal**

One of the challenges facing Pleasant Valley is the presence of four leaking underground heating oil tanks (DEQ 1999b). Although the quantity of oil leaking from a residential underground oil storage tank is likely to be small, such material can have very harmful effects on fish if it reaches water bodies. Septic and waste disposal issues are very important to the health of the valley's watershed.

Many valley residents are well aware of disposal issues and carefully dispose of waste. One resident of the valley remembers that his parents collected and saved most everything and disposed of very little. Of the waste that was disposed, paper waste was burned, cans were
crushed, saved and brought to the dump, and all food waste was composted or fed to the animals. Although chemicals were used on the farms, people recall using them sparingly. In addition, chemicals were expensive; therefore, excess was kept for the following year. Residents reported that some of the older families that didn’t have indoor plumbing would dispose of their waste in the outhouse. When that filled up they would dig another hole. He believes that this practice was common around the older homes.

But not all residents have been careful about waste disposal. One resident remembers when there were more dairies in Pleasant Valley, large quantities of waste from the cows were discharged directly into the creek. Illegal waste disposal has also been an issue in the valley. A resident recalled that their neighbors were burying truckloads of construction debris in the neighbor’s backyard, in a pit about 10-15 feet deep and 20-30 feet long. The residents reported it to DEQ fearing it would pollute their water supply, and the activity stopped.

Portland’s Bureau of Environmental Services reports that there are currently no major septic problems in the valley. Septic systems built after 1974 are generally safe when the more stringent standards were implemented (Ebling 2000). While no health hazards currently exist in the valley, the presence of aging septic systems poses yet another challenge to addressing water quality issues in the valley.

Pesticides
The wide use of pesticides in Pleasant Valley is not surprising. Insect problems are common in the farm crops of the valley, including aphids, green worms and others. One resident used the example of webworm. The worms don’t eat the berries, but their webs render the berries unfit for sale, so growers sprayed Malathion or Parathion to control the worms. Several residents report that when it was legal, valley farmers sprayed their crops and cows with DDT, arsenic and nicotine-based pesticides. The people of the valley, like most Americans, thought there was no reason for concern. Given the common use of pesticides, and the slow decay rates of some of them, such as DDT, pesticide-contaminated soils and groundwater are likely in the valley.

Future planning in Pleasant Valley needs to account for these environmental issues raised by valley residents. If soil testing reveals highly polluted property, planners and developers need to use this information to proceed with safety.
MAP OF SIGNIFICANT PLACES AS NOTED BY RESIDENTS

- Giese Rd
- Cheldelin Rd
- McKinley Rd
- Foster Rd
- Kelley Creek
- Mud Slide
- Grove of Old-growth Cedars
- Lots of Standing Water
- Elementary School
- Trout, Salmon, Steelhead
- Grew 10 ft up
- Would Swim up Pitneys
- Used to be swampy
- Dams kept fish out
- Wetlands, lots of wildlife
- Lots of Coyotes
- Kids play in creek, lots of berries, beauty
- 190th
- 162nd
- U.S. 101

Resident Informing the Planning Process - Page 40
Findings and Recommendations

Soils and Groundwater

Pleasant Valley is underlain with a compacted soil layer with very low permeability one to three feet below the surface resulting in a perched water table and saturated soils during the rainy months. This has had a major effect on the way people interact with the land. In order to raise crops and livestock successfully, valley farmers installed extensive tile drainage systems. These facts have been confirmed repeatedly in interviews with residents throughout the valley.

Subsurface drainage patterns in Pleasant Valley are intricate and often subtle. They result from the natural topography of the substratum and 150 years of incremental manipulation by valley residents. These patterns may not be evident from an examination of surface topography and tiling out-fall locations. Development has occurred in the valley without a thorough understanding of current subsurface water movement that resulted in serious unforeseen consequences. Residents confirmed that the development on Hawthorne Ridge and the subdivisions on the south edge of Gresham caused upwelling of water where drainage was blocked, increased sediment loads in the creeks, and caused numerous negative impacts on properties downstream of the development.

The limited water holding capacity of the thin surface soil layers, combined with increased impervious surfaces from development, are likely to create a situation of increased short duration flow in Kelley Creek during storm events and decreased flow during dryer periods. This will limit the potential for restoration of Kelley Creek for fish habitat and exacerbate flooding in Johnson Creek.

Creeks and Fish

Residents are acutely aware of the problems in Kelley Creek. As they explained, storm flows have increased while summertime flows have decreased and erosion and sedimentation in the channel bed have been steadily increasing over time. A recent water quality study in Kelley Creek confirms that levels of sediment in the creek are well above average. Residents blame the increases in erosion and sedimentation on new construction in the upland areas of the watershed. Other erosion and sedimentation problems may stem from channel incision and downcutting brought on by the volume and velocity of increased stormwater runoff.

"Every house upstream is an environmental impact on the creek."
As residents recounted repeatedly, Kelley Creek once supported healthy populations of salmon, steelhead, sea-run and resident cutthroat trout while the headwaters provided critical spawning habitat. However, under current conditions, Kelley Creek cannot support healthy salmonoid populations. Specifically, high levels of sediment, high temperatures, flow variations, and the presence of dams need to be addressed before salmon are able to return. Riparian buffers in Kelley Creek are essential to allow the creek to heal. Equally important are the impacts of development. Current residential development in the watershed has caused significant problems with erosion and sedimentation indicating that current development codes are insufficient and/or enforcement is inadequate.

**Recommendations**

In order to maintain and hopefully improve the health of Kelley Creek and its aquatic habitat, it is necessary to evaluate how future land use activities will impact stormwater and, in turn, the health of creeks and aquatic habitat. Therefore, the principal recommendation of this report is that a comprehensive watershed management strategy be developed for the Kelly Creek watershed. The development of such a strategy is critical in order to prevent the exacerbation of flooding problems downstream in Johnson Creek and to address the regionally stated goals of protection and enhancing aquatic habitat. This strategy must be proactive and the basis for future land use decisions in the watershed.

However, a stormwater management strategy must be more comprehensive than simply requiring best management practices on a site by site basis. The strategy must include an evaluation of the stormwater and subsurface flow, stream flow timing, volume and velocity, as well as creek health and aquatic habitat within the individual sub-basins in the watershed. The plan should then evaluate how these parameters will be changed by future land use decision. For example, a thorough understanding of subsurface flow must be achieved prior to major siting and infrastructure development decisions. Based on this information a plan can be developed that takes into account those subbasins that can best accommodate growth. The knowledge and experience of Pleasant Valley residents as well as the technical expertise of agencies, such as the Natural Resource Conservation Service, should be actively sought out during the planning process. All agencies that have municipal or regulatory jurisdiction in this area should be involved in the development of a watershed management strategy for Kelley Creek.
Constraints imposed by the limited ability of the soils in Pleasant Valley to absorb stormwater will require innovative stormwater management techniques. Standard engineering practices during development, such as storm sewers discharging into the creek or detention ponds, create the problem of concentrated flows. These practices are likely to further degrade the stream and may be inadequate to prevent development in Pleasant Valley from adding to flooding problems downstream in Johnson Creek. Innovative techniques to address these issues are being developed across the country and warrant exploration; examples include rainwater harvesting and constructed wetlands.

As stated earlier, the health of the in-stream habitat depends on surface and subsurface flow and water quality from the surrounding watershed as well as the nature and composition of the vegetation in the riparian areas. The watershed management strategy should include incentives to encourage landowners to participate in the restoration of riparian areas. It may be easier to work with existing landowners, residents who have a sense of stewardship for the land and a special affinity for Pleasant Valley, than to work with developers who purchase the land specifically for development. It may also serve a dual purpose of purchasing parkland at an affordable price and using parks as a building block for other development.

Managing surface and subsurface water movement to accommodate growth while protecting stream habitat and reducing downstream flooding will involve a delicate balancing act. The goal of no net increase in stormwater runoff adopted by both Gresham and Portland for the valley will be an intractable challenge. It will require well-reasoned planning and innovative development techniques. It is imperative that a comprehensive watershed management strategy be developed for the Kelley Creek watershed. It cannot be overstated that this type of planning must be at the forefront of the overall planning process. A watershed management plan superimposed on a development plan will have little chance of success.

**Methodology**

The methodology used for this project provided important information about certain aspects of the history and natural resources of Pleasant Valley that may not otherwise have been available. Residents provided a perspective and immediacy about their land that was not available from other sources. Access was gained to longtime members of the community by actively seeking them out, and expressing a direct interest in their knowledge and expertise. The personal interviews, either in small groups or individually, established a sense of trust between project team members and
interviewees. Residents were comfortable providing the names of their friends and neighbors as referrals, which enabled the team to build a network of contacts in the community. Furthermore, information was gathered from residents who had not previously participated in the planning process. Although a large number of people attended the public participation forums held by the cities of Gresham and Portland in 1998, none of the residents we interviewed were in attendance.

Through this process, information was gathered concerning how natural hydrologic systems have been altered and adapted, and how stream characteristics and fish populations have changed over time. Moreover, the information assembled from this project provided both a broader and deeper understanding of the people and history of Pleasant Valley.

**Final Recommendation**

The methodology used in this report should become standard operating procedure for any area designated for development. All places have a unique social and natural resource history, as well as specific environmental concerns. Existing technical data may be incomplete and information gathered from public hearings prior to development may be limited. In addition, knowledgeable residents may be unaware of public meetings, uncomfortable participating, or have limited mobility. Actively interviewing residents and drawing upon their life experience engages residents in the planning process. It allows planners to tap into the existing social network and create a contact tree. This methodology also identifies potential community leaders who are well respected by their neighbors.

The greatest reservoir of knowledge about any given area is likely to be its long-term residents. Their experience with the land they have lived on and shaped for many years can be invaluable in informing the planning process and helping to make the most appropriate decisions for development.
APPENDIX A: REFERENCES


Caldwell, Dick, Oregon Department of Fish and Wildlife, phone interview, March 7, 2000.

Department of Environmental Quality (DEQ) Complaint Hotline, phone interview, October 20, 1999a.


Frances, Ivy. City of Portland Bureau of Environmental Services, personal conversation, November 21, 1999.


Kirby, Greg, Multnomah County Department of Environmental Services, Interview January 15, 2000.


Oregon Historical Society. 1200 SW Park Avenue, Portland, Oregon.

Oregonian, “Oil is Found Near City,” March 19, 1924 p.18.

Richey Clan Reunion. Newsletter created for a recent family reunion, undated.


United States Department of Agriculture Soil Conservation Service (SCS), Soil Survey of Multnomah County, Oregon, August 1983.

Optional Questions:

- When did you or your family first settle in Pleasant Valley and where did they come from?
- Why did your family come to Pleasant Valley?
- Has your family made all or part of their living from the land? If so, how has this changed over the years?
- How has the use of land in your area changed over time?
- What do you like the most about Pleasant Valley?

Dear Pleasant Valley Resident,

We are a group of graduate students at Portland State University conducting a planning project on Pleasant Valley and the Kelley Creek Watershed. As you may know, Pleasant Valley has been brought into the urban growth boundary and local governments are beginning to plan for development. As part of our project, we want to understand how the environment and landscape have changed in the last 150 years. It is our goal to provide planners and public officials with information about significant natural areas based on the knowledge of people who live in the area.

An oral history is a collection of stories based on interviews with local residents. You and your neighbors are an important source of information for us to learn about what the landscape looked like in previous decades and the changes that have taken place. We hope to learn about the settlement patterns of Pleasant Valley as well as significant natural events, hazards, and wildlife – any information that may not be widely known. By gathering this information now, planners and public officials will have a better understanding of what is unique to Pleasant Valley.

Inside is a map that you can use to make notes or comments about the area. We have enclosed a stamped return envelope, which you can use to mail the map back to us. We would also like to interview as many residents as possible. Please call us if you, or someone you know, would like to be interviewed at 227-1394. This is an opportunity to use your knowledge to contribute to better planning and land use decisions for Pleasant Valley before it develops.

We look forward to hearing from you and hope that you will participate. Thanks for your time.

Regards,

Steve Olson, Ian Simpson, Jay Sugnet, Tim Williams, and Alison Young
Please take a few minutes and note the changes that have occurred in your area since your earliest recollections. For example, you might remember that the use of your property or the land surrounding your property changed from a dairy to a tree nursery. You may also remember some spots along Kelley or Mitchell Creeks that were good for salmon fishing, areas that were flooded on a regular basis, or areas you believe were significant for any reason.

While the results of our study will be passed on to planners and public officials, any personal information that you provide, including your name, if you decided to provide it, will be held in strict confidence. Please make notes right on the map and then put it in the postage paid return envelope.

If you have time, there are six additional questions on the back page to help frame the history of the area. If you would like to tell us more about your map or if you would be willing to be interviewed directly, please call Tim Williams at 227-1394. If you know of someone willing to share the wealth of history in Pleasant Valley, please pass on our number.

Below are a few examples of the kind of information we are looking for. Any information you can provide relating to the land and water resource history of Pleasant Valley will be helpful.
APPENDIX C: NATIVE AMERICAN HISTORY

Clackamas villages ranged from the south bank of the lower Columbia River near Troutdale to close to the opposite side of the Columbia from Kalama, Washington. The villages also ranged down the east side of the Willamette near Oregon City and east to the Cascade Mountains. They inhabited the Clackamas and Sandy River Valleys. The Upper Molala lived in the Willamette River watershed, west of Mount Hood along the Molalla River and south into the Santiam River watershed. Finally, it is possible that the Multnomah ventured into Pleasant Valley at one time (Island Ruby 1986).

The Clackamas and Multnomah both belonged to the Chinook tribe. All Chinook shared similarities in language and culture (Zuker 1983). Prior to 1805 there was an estimated 3,600 Multnomah. However, their numbers quickly dwindled as they succumbed to diseases brought by white settlers. From 1805 to 1806 Lewis and Clark counted 800. By 1834, they were declared extinct, although another account claims that there were ten left in 1907 (Ruby 1986).

Like the Multnomah, the Clackamas were ravaged by disease. In the 1780s the population of the Clackamas was estimated at 2,500 (Ruby 1986). In 1806, Lewis and Clark estimated their population to be 1,800. By the 1850s they were less than 100 (Ruby 1991). In 1855 the remaining Clackamas signed a treaty with the US relinquishing their lands, and they were removed to the Grand Ronde Reservation. A 1915 article in the Oregon Journal reported the death of the last Clackamas (Ruby 1986).

Along with another tribe, the Cayuses, the Upper Molala were estimated in 1780 at 500 people. By 1851 there were 123 Upper Molalans reported. In 1870, 74 Molalans were reported on the Grand Ronde Reservation and in 1881, 55 on the Klamath Reservation. By 1910 there were only 31 Molala remaining (Ruby 1986).

The Clackamas and Multnomah were spread throughout a number of permanent villages (Ruby 1986). The Molalan's villages were smaller and less permanent than the Clackamas and Multnomah (Zucker 1983). In the summertime these groups migrated from their villages and set up camps where they collected roots, berries and salmon (Ruby 1986). The Clackamas erected platforms from the rocks along the banks of rivers from which they could net, spear or gaff fish jumping rapids and falls (Beckham 1977). While the majority of Clackamas, Multnomah and Molala probably fished on the most productive rivers, such as the Clackamas, Sandy, Willamette...
and Columbia rivers, villagers did split up for the purpose of maximizing the amount of food they could collect. Thus, it is likely that a minority of Clackamas may have fished in Johnson and Kelley Creeks. However, they most likely did not need to build platforms, but could simply collect fish by standing in the streams or along their banks. Moreover, it is unlikely that they fished for salmon in Kelley Creek. Migrating salmon in Kelley Creek were described in a number of accounts as spent and not good for eating. Rather, Kelley Creek may have been fished for sea-run cutthroat trout.

Another staple in the Clackamas and Multnomah diet was the wapato root, found in swampy areas. This was harvested in the springtime and was a well sought after food source after winter food stores began to dwindle. Sauvie Island, north of Portland, is well known as a productive area for the root (Zucker 1983). Therefore, the Multnomah most likely did not need to forage in the Kelley Creek watershed for this staple. Similarly, the Molala relied less on wapato root and more on camas bulbs as their early spring staple. It is most likely that the Clackamas visited Pleasant Valley due to the swampy that are conditions ideal for the wapato root (Zucker 1983).

The Clackamas, Multnomah and Molala peoples also collected blackberries, thimbleberries, salmon berries, crabapples and choke cherries acorns, hazelnuts, sego lily, cattail, and camas root (Zucker 1983, Arnold 1998). Game was an important food source, although not as important as fish, roots and berries. They mainly hunted in the winter when food was scarce (Zucker 1983). Major game included deer and elk, providing food, skins for clothing and antlers for tools. Small game animals and birds such as duck and quail, both plentiful in Pleasant Valley, were also hunted (Zucker 1983, Arnold 1998).

The summer and winter were times of settlement. The summer was spent in camps. It was a time to fish and to celebrate, when festivals were held and food was abundant. Winter was spent in the villages. It was a time to tell stories, make tools and hold ceremonies. Fall and spring villages disbanded and broke into small groups. In the spring when food was scarce, small mobile groups would gather roots and berries and hunt. In the fall it was time to prepare for winter, and small groups would venture out to favorite fishing, hunting and gathering spots to collect extra stores (Zucker 1983). It is likely that the Kelley Creek watershed was an area where small groups passed through looking for food, and perhaps where a larger village was located. However, there is currently no archeological evidence of this.