

GOAL 6 - AIR, WATER AND LAND RESOURCE QUALITY

A. Water Quality

1. Introduction:

Maintenance of high water quality is important for the health of the human beings, fish, and other living things that inhabit the County.

2. Definition:

- a. Fecal Coliform: These are organisms that originate in the intestinal tracts of warm blooded animals, and indicate sewage or livestock contamination. The higher the coliform count the more likely the coliform contains harmful pathogenic bacteria.
- b. Pathogen: A virus or bacteria-causing disease.
- c. Chemical Concentrations: Chemical concentrations are the amount of certain chemicals found naturally and/or man-introduced in all water. Elements tested include: arsenic, boron, iron and others. Major sources include industrial wastes, pesticide residues, and soil runoff.
- d. Nutrients: These are elements found in all water. They may be introduced either naturally or by man. The two major nutrients are nitrate and orthophosphate which together with sunlight and low stream flows produce algal blooms in water. The major sources of nutrients include urban soils and agricultural runoff, sewage, and some pesticide residues.

3. Water Quality:

The Federal Section 208 (non-point pollution control) program and the State's 303e program helps to maintain good water quality and improve it where necessary. Factors that degrade water quality include high water temperature, low dissolved oxygen levels, sediment, toxic sprays, and too many nutrients in the water. These factors are usually inter-related. For example irrigation water diversions sometimes are so great that the water volume in a stream is inadequate to maintain a cold water temperature in summer. The higher the water temperature, the lower the dissolved oxygen for fish and other aquatic organisms. Irrigation return-flows to the stream are often characterized by sediment, high concentrations of nutrients and heat. The heat and added nutrients stimulate the growth of algal blooms. These "blooms", when they decompose, deprive fish of much of the available dissolved oxygen. The primary source of sediment in Hood River Valley streams is Mt. Hood glacial outwash. Sediment has a smothering effect on fish eggs laid in spawning gravels, and is costly for irrigationists because it raises the frequency of replacement of sprinkler heads.

For the most part, the streams in the Central Valley area meet the State Water Quality Management Plan (303e) standards for swimmable and fishable waters. There are some problem areas, however. There is severe water withdrawal in the summer months from the East Fork Hood River above Parkdale. There is severe streambank erosion on the lower West Fork Hood River, and moderate streambank erosion further up on the West Fork and on the Lake Branch, as well as on the Middle Fork Hood River - Siltation is severe on the East and Middle Forks Hood River, and moderate on the West Fork Hood River. The aforementioned problem areas, except for the case of severe water withdrawal from the East Fork, are not primarily man caused.

Man-caused pollution can take the form of toxic sprays getting into streams and rivers. Orchardists need to exercise caution in rinsing and storing spent chemical containers in order to prevent this problem. Bacteriological and chemical water concentration problems, are often -- though not always, the result of man-caused pollution. High fecal coliform counts can be indicative of potential health problems. Fecal coliform are organisms that originate in the intestinal tracts of warm blooded animals. The higher the coliform count, the more likely the coliform contains harmful pathogenic bacteria.

Unusually high total and fecal coliform counts were observed at the Parkdale Road Bridge station on the East Fork. July, 1975 data indicates water quality improves chemically downstream as one goes from the Dee bridge to the confluence of the West Fork. A water sample taken on Odell Creek 200 yards below the Odell Sanitary District Sewage Treatment Plant in 1975 indicated nutrient levels and total and fecal coliform counts exceeded those of most other water samples taken in the planning area. The cause of these high readings is not known, but the treatment Plant is probably not responsible. A water sample taken near the mouth of Trout Creek indicated higher nitrate and orthophosphate levels than in most other planning area samples. Chemical and bacterial concentrations were significantly higher in water samples taken below most of the industrial and agricultural activities on Neal Creek than they were in samples taken upstream from said activities. Bacteriological samples on Baldwin Creek downstream from a group of homes along Highway 35 indicated higher fecal coliform counts than did samples taken upstream from the homes. (The above water sample information is from a correspondence reply from DEQ, Bend, Oregon office to B.A. Erickson, Hood River City Administrator, August 27, 1975.)

There are two types of water pollution: point and nonpoint. "Point" pollution comes from a confined, identifiable source, such as a pipe or ditch. Point source pollution is controlled by a permit issued by the Oregon Department of Environmental Quality (DEQ). The standards required for pollution treatment is generally the best available pollution technology. "Nonpoint" pollution includes such sources as uncollected runoff from agricultural and forestry operations. Nonpoint pollution generally does not go through water treatment plants and is not presently covered by permits. The Hood River Soil and Water Conservation

District is working on a program to better control nonpoint pollution. The SWCD input will be a part of the Oregon Statewide Water Quality Management Plan. The DEQ Policy Advisory Committee for nonpoint sources of pollution has adopted the recommendation that enforcement of water quality programs, if necessary, should be through local ordinances and comprehensive plans rather than from the state level.

Because of the flood in the winter of 1978, the dike of the Dee hardboard plant sludge lagoon broke. The problem of sludge occasionally spilling over into the Hood River should be corrected within a year. The owner of the plant is planning to install an air floatation system to reduce the solids in the Dee plant's effluent. This should enable the Dee hardboard plant to meet DEQ's discharge limits.

The Odell sewage treatment plant is nearing the capacity of sewage it can handle. It will soon need to be enlarged. The Odell sewage treatment plant and all industries within the planning area presently provide secondary treatment for their sewage wastes.

The quality of stream water running through the City/Westside area is relatively good, meeting swimming and fishing standards.¹ Since no surface water is used for domestic purposes, it does not have to meet the more demanding drinking water standards. Groundwater quality has not been scientifically tested, although it is reported to be a good domestic source when available. Cold Springs, Stone Springs, Ice Fountain Springs, Crystal Springs, and Oak Grove Springs supply domestic water to 96 percent of the residents in the area.² Indications are that these sources are adequate in both quantity and quality for the future.³

A number of streams originate on the forested slopes of the Gorge. Because these watersheds are for the most part undisturbed and free from sediment, water quality remains high in the Gorge area. The few residences rely on some of these streams and on wells for their domestic water needs. There is no domestic water district within the area. However, the City of Cascade Locks has a permit from the Mount Hood National Forest for a water withdrawal facility on Dry Creek.

A 1915 Act of the Oregon Legislative Assembly (ORS 538.220.210) placed a restriction on the use of water from streams with waterfalls in the Gorge. The following streams are withdrawn from appropriation or condemnation, and may not be diverted or have their flow interrupted except in the limited cases outlined in ORS 538.210: Eagle, Ruckle, Herman, Summit, Lindsey, Spring, Warren, Cabin, Starvation, and Viento Creeks.

¹ Personal communication with Bob Shimek, DEQ, Bend Oregon office, 1976.

² A study of water, Hood River County, Oregon State Water Resources Board, June 1965.

³ Op Cit.

Undisturbed riparian lands (riparian means literally "on the banks of") along the Columbia River are important fish and wildlife habitat areas. Lower Herman Creek is an important anadromous fish spawning area.

The volume of groundwater in the Gorge Area is undetermined at this time. Tapping into this groundwater by wells is presently very limited. Much of the groundwater comes from surface streams upslope that percolate into the permeable stony soils at the base of these steep slopes.

The non-FES portion of Mt. Hood Area appears to be very good. The Oregon Statewide Assessment of Non-Point Source Problems (DEQ, August, 1978) shows that there is some moderate streambank erosion on West and Middle Forks Hood River, Ladd Creek, Lake Branch West Fork, and Clear Branch Middle Fork Hood River, and moderate sedimentation in Dog River and West Fork Hood River. Ladd Creek and Middle Fork Hood River have severe sedimentation problems. There are no major point sources of water pollution in this area, according to the DEQ.

4. Water Quality Study:

In 1975, the Oregon State Department of Environmental Quality conducted a river basin study in order to determine water quality in the Hood River Basin region.⁴

Three rivers were analyzed for certain chemical, physical, and biological parameters. Of major significance in assessing water quality is the presence or absence of the following: dissolved oxygen, oxygen-demanding (organic) waste material, nutrients (nitrogen and phosphorous compounds) and certain bacteria.

The concentration of the above mentioned substances in water is a function of volume, time of sample, water temperature, vegetative characteristics in the drainage basin, soil type, use of chemical fertilizers or pesticides and land use characteristics. The DEQ did not use these criteria in computing their results, thus their conclusions must be considered as very general in nature. Comments concerning water quality at the time of the study are listed below.

- a. Hood River (Below West Confluence): Samples collected at Tucker Bridge and the railroad bridge near Pacific Power and Light show a slight increase in certain nutrients as well as an increase in bacterial concentrations.
- b. Phelps Creek: The concentration of coliform organisms was higher at Riordan Hill Road than at Country Club Road. Chemical concentrations were shown to be lower at Riordan Hill Road than at Country Club Road.

⁴ Correspondence reply from DEQ, Bend, Oregon office to B.A. Erickson, Hood River City Administrator, August 27, 1975.

- c. Indian Creek: All three stations on Indian Creek produced high total coliform counts and the Rockford Drive station showed high fecal coliform counts. Nutrient indicators at all three stations were higher than those found in the Hood River. Dissolved oxygen and biochemical oxygen demand levels were within acceptable limits at all locations in Indian Creek.

5. Water Areas, Wetlands, Watersheds and Groundwater Resources:

There are five water districts that serve the domestic water needs of Central Valley Area residents. These water districts obtain their domestic water from the following sources: Cold and Laurel Springs (SW¹/₄ of Section 30, T. 1N, R9 E., W.M.), Odell Spring (NW¹/₄ of Section 35, T. 2N, R. 10E., W.M.), Parkdale Cold Springs (NW¹/₄ of Section 7, T. 1S., R. 10E., W.M.), Crystal Springs (NW¹/₄ of Section 29, T. 1S., R. 10E., W.M.) and a diversion from Tony Creek (in Section 25, T. 1N., R. 9E., W.M.). Crystal Springs and Parkdale Cold Springs are located outside the planning area. The Oregon Water Resources Department has a record of water rights filed from water districts for the following amounts of domestic water. Cold and Laurel Springs: 25 c.f.s. reserved. Crystal Springs: 6.15 c.f.s. reserved. Odell Springs: 1.0 c.f.s. reserved. Parkdale Cold Springs: 1.5 c.f.s. reserved. Tony Creek diversion: 0.03 c.f.s. reserved. (Source: District Watermaster records, The Dalles, 1978.)

The lakes one acre and larger within the area are: Bear Lake (4 acres), Black Lake (7 acres), Green Point Lower Reservoir (13 acres), Green Point Upper Reservoir (32 acres), Hicks Lake (2 acres), Mud Lake (1 acre), North Lake (8 acres), Ottertail Lake (2 acres), Rainy Lake (10 acres), Scout Lake (3 acres), Wahtum Lake (57 acres), Warren Lake (4 acres). As the result of the May, 1978 vote that approved the merger of the Hood River and Farmers Irrigation Districts, the chances that the Green Point Lower Reservoir dam will be enlarged are improved. Enlargement of this dam will enlarge the lower reservoir to the point that Green Point Lower Reservoir and Green Point Upper Reservoir will be merged. The increased storage capacity of the new enlarged reservoir will augment irrigation supplies for lands within the new combined irrigation district (to be called the Farmers Irrigation District).

Groundwater resources are little developed in Hood River County because most domestic and irrigation water in the County currently comes from springs off Mount Hood and surface stream flow. If wells are not concentrated in any one area, there should not be a problem with groundwater depletion. The present concern of the State Water Resources Department is that contamination of groundwater by septic tank drainfield and/or improper well drilling and installation be prevented.

An intensive groundwater survey in Hood River County is being initiated with the aid of a grant from the Land Conservation and Development Commission. The

results of the survey should enable a reliable estimate of groundwater resources in the area to be made.

There are no significant wetland areas within the Central Valley area.

The City/Westside Area has one existing source of community domestic water, the Oak Grove Watershed. This spring and watershed supplies domestic water to the Oak Grove area. The spring is located on private land, although the surrounding watershed is located on public (county and U.S. Forest Service) lands to the west. Until it is proven that the source of recharge is not related to the surrounding watershed, the county is desirous of protecting the watershed of this and other potential domestic water sources.

The above inventoried resources and views are further discussed and evaluated through the Goal 5 process within the Goal 5 section, under Water Areas, Wetlands, Watersheds and Groundwater.

6. Sedimentation Control Ordinance:

The Hood River County Soil and Water Conservation District is currently reviewing existing ordinances and is preparing a proposed sedimentation control ordinance for County review. The Planning Department is providing limited assistance.

Overall, the County Policy Document (representing a consolidation of all plans) contains under Goal #5, within sections of Fish and Wildlife Areas and Habitats; and Water Areas, Wetlands, Watersheds, Ground Water Resources and Water Quality, numerous policies, strategies, etc.; directing primarily the following: water quality be maintained; protection and maintenance of riparian vegetation; adherence to building setback requirements from streams; development and adoption of sedimentation control ordinance, etc. The Goal #5 Section alone, regarding Water Areas, Wetlands, etc., contains over 40± goals, policies, strategies, etc., addressing protection of water quality through primarily protection of the existing riparian vegetation.

Furthermore, the County participates in the Oregon Division of State Lands permit process, applicable to all lands within the beds and banks of streams and the U.S. Army Corps of Engineer's permit process applicable to the Columbia River and wetlands. The County also works closely with the Soil and Water Conservation District regarding permit applications along streams and for land primarily zoned Exclusive Farm Use. The above agencies are advised of the County's existing goals, policies, etc., regarding protection of riparian vegetation.

The following zones are also being revised to include provisions requiring building setbacks from streams: (1) Forest, (2) Exclusive Farm Use, and (3) Floodplain Combining. Updating the above ordinances will provide protection of

a majority of the County's riparian vegetation because approximately 84% of the County's private land base is zoned Forest or Exclusive Farm Use. Overall, 87% of the entire County land base is zoned Forest.

7. Additional Policies, Strategies, etc.:

- a. Add the following policy to Goal #6 - Air and Land Resource Qualities (County Policy Document):

“Existing or proposed airports shall comply with the DEQ's airport noise criteria.”

- b. The following strategy from Goal #5, Section D., Fish and Wildlife Areas and Habitats to be added as a setback provision in the Forest, Exclusive Farm Use and Floodplain Zones. Setbacks from streams: New buildings shall be set back 100' from ordinary high water line except for those uses in conjunction with a water-related or water dependent use. Exceptions to this requirement shall be allowed when affirmative findings through documentation are made and submitted to the Planning Director to satisfy the following: (1) the proposal would provide better protection, maintenance and retention of riparian vegetation than would occur by observance of the setback requirement; or (2) the protection, maintenance and retention of riparian vegetation are not applicable to the proposal.

B. Air Quality

1. Introduction:

The atmospheric region that has inter-relationships with specific land-based activities is called the air shed of that area. Air drainage patterns develop in a way similar to water drainage patterns. Cool air being denser and thus heavier, flows downhill while warmer, lighter air moves in to fill the space left by the exiting cool air. In Hood River County, air at high elevations in the mountains will cool and flow down to the valley being replaced at the high elevations by relatively warmer air. This cool air will frequently settle in the valley during the evening.

In order to protect the public health and welfare from the adverse effects of high levels of air pollution, state and federal air quality standards have been established. In the County, air quality is generally the best when there is air movement that transports and diffuses the gaseous and particulate pollutants out of the area.

The Hood River Valley lies in a transition zone between the marine-influenced climate west of the Cascades, and the dry, continental climate to the east. The Columbia Gorge serves as the gap through which these two climatic types flow

and meet. The movement of air is usually from the west but the buildup of high pressure cells to the east of the Cascades, or the development of low pressure troughs to the west occasionally reverse this pattern bringing dry, cold air in the winter, and dry, hot air in the summer. Both seasonal extremes in weather are associated with this influx of continental air from the east.

During periods of calm (wind speeds of less than 4 m.p.h.), the main air mass movement will be caused by nighttime cooling. When these conditions exist, the cooling produces a gradual downhill drainage of the air masses from the higher sections of the mountains to the lower valley area. In the County, one of these ventilation patterns usually exist. The result is the transport and diffusion of any gaseous or particulate pollutants out of the area.

2. Air Quality:

Air pollution is the presence in the atmosphere of elements that have adverse effects upon one or more of the following: human health and well being, and non-human life forms, both plant and animal. Pollution is generated by three basic processes: attrition, vaporization, and combustion. Attrition refers to foreign matter added to the air through any form of friction. Vaporization is the process by which liquids become gases and so are diffused in the atmosphere. The greatest contributor of pollution is combustion (most of which comes from the internal combustion engine).

According to the Oregon State Department of Environmental Quality (DEQ), the air quality of the Hood River Valley air shed is predominantly affected by gaseous and particulate matter generated in the immediate area.

There are two sawmills and one hardboard plant in the Central Valley area. Other sources of air pollution are the slash burns in the forests bordering the valley in the spring and fall months, and the smudge pot operations during the early spring. A major contributor to air pollution, and the source that may surpass all other sources in the future, is automobile emissions. Future planning of transportation and industrial development should take into account the air shed carrying capacity of the Central Valley area.

In November, 1981, the Hood River County solid waste transfer site was approved by the County, DEQ and other affected agencies and constructed. The site is located within the City/Westside Area outside the Urban Growth Boundary upon lands zoned Light Industrial. DEQ felt there would be no potential air pollution problem, because burning of material would not be allowed. Noise standards and limits were also specified for both the activities of the transfer station and the increase in traffic. It was felt that noise standards would not be violated, however if they were, re-evaluation of the site would become necessary. Other concerns positively assessed by the DEQ included solid and liquid waste storage.

In the Columbia Gorge Area noise sources are usually associated with Highway I-84 (trucks, road repair, weigh stations). A future concern is potential noise generated by small hydro-electric projects not only within the Gorge but within the remainder of the County.

In the non-FES portion of Mt. Hood Area, noise is primarily generated by logging and aggregate mining operations and traffic. The non-FES Area of Mt. Hood Area is considered a "Class II PSD (Prevention of Significant Deterioration) Area". This generally means that the area has air quality that's cleaner than the national ambient air quality standards. In this area certain "increments" of air pollution increases are allowed and these increments designate the Class II PSD as either Class I, II, or III. The non-FES portion of Mt. Hood Planning Unit is Class II, which means 100% of the "increments" are allowed (i.e., air pollution could increase up to a certain level and still be within national air quality standards.⁵

Air quality in the Columbia Gorge is generally high. Automobile exhaust and smoke from forest slash burning are the two major pollutants. For the most part the smoke from forest slash burning is blown in from outside the Gorge. Neither of these pollution problems are serious at present due in part to the great amount of ventilation (it's windy in the Gorge!) that characterizes the Gorge.

Except for its wilderness areas and Crater Lake National Park, all of Oregon is designated as Class II under the Federal Clean Air Act. Class II protection of air quality means a moderate amount of degradation from a pure air standard is allowed. Under no circumstances, however, is degradation supposed to go beyond the air quality standards to protect human health. The Oregon Department of Environmental Quality (DEQ) administers Oregon's air quality program through a permit and monitoring program.

3. Noise:

Noise sources in the City/Westside and Central Valley areas include traffic, industrial noise (sawmills, gravel pits, agricultural produce packing plants), noise from agricultural practices (machinery for spraying, harvesting, planting, etc.), logging trucks, and the airport.

The Hood River Airport presently does not have a serious noise problem because of the small and relatively quiet aircraft using the airport.⁶ However, the year 2000 forecast indicates that the area will be affected by aircraft increases. Identification of the noise impacts of the Hood River Airport was made using the Noise Exposure Forecast (NEF) method. The NEF estimates exposure to engine noise from ground and flight operations of aircrafts and relates the estimated exposure to the expected responses of residents in the Community. The exposure

⁵ DEQ Handbook for Environmental Quality Elements of Land Use Plans, July, 1978, page C-21.

⁶ Century West Engineering Corporation, Hood River Airport Master Plan, 1977-2000, 1976; pages 20-21.

calculated is graphically shown as contours on the Airport's Land Use Map. It is estimated the NEF values of between 30-40 will be noted by the year 2000. As outlined in the Airport Master Plan, land uses adjacent to the airport that are considered acceptable with the above noise levels include primarily agricultural and commercial uses limited to low density concentrations of people. The County's Comprehensive Plan to the year 2000 supports this concept because affected lands were planned and zoned Farm and Exclusive Farm Use. Furthermore, the airport has acquired several navigation easements within the NEF contour area to assist in implementing the Land Use Plan.

Overall, the majority of lands surrounding the airport including those at the ends of the runway (west and east) and beyond are planned and zoned Farm and Exclusive Farm Use. These designations are synonymous with those shown on the Land Use Plan in the Hood River Airport Master Plan and the County has also developed a Noise Abatement Ordinance.

C. Conclusions and Observations: Findings:

Water Quality/Air Quality⁷

1. Beneficial uses of healthy streams include: irrigation water supply, fish spawning and rearing, wildlife and hunting, fishing, boating, hydropower, and others.
2. Sewage is leaching into the Columbia River and Phelps Creek from the area around the mouth and to the west of Phelps Creek and is causing excessive coliform levels.⁸
3. Sources of sewage presently leaching into areas of Hood River, Phelps Creek and Indian Creek have been identified
4. At times, agricultural sprays, soil runoff, and runoff from roads and construction sites affect water quality in the three streams mentioned above.
5. Nitrogen supersaturation has become a problem in the Columbia River, as has sedimentation.
6. For the most part, the streams in the City/Westside area meet the State Water Quality Management Plan (303e) standards for swimmable and fishable waters.
7. Major causes of stream degradation are: (1) septic tank infiltration, (2) the introduction of agricultural sprays and waste fertilizers, and (3) sedimentation and introduction of suspended solids caused by the construction of roads, urban facilities, and other buildings.

⁷ Taken in part from Oregon Department of Environmental Quality, Air Quality Control Division Report, February 7, 1975.

⁸ Oregon Department of Environmental Quality, Air Quality Control Division Report, February 7, 1975.

8. Man-caused pollution of waterways in the Central Valley area takes the form of runoff chemicals from agriculture and forest lands, sedimentation from agriculture and forest land roads, and septic tank infiltration into streams.
9. There are five sources of domestic water for Central Valley area residents. The capacity of these domestic water sources is considered adequate for the planning period.
10. The watersheds of existing and potential major sources of public domestic water need to be protected from encroachment by uses that would affect the quality or quantity of water produced.
11. There is a need to designate all watersheds that are existing or potential major sources of public domestic water supply.
12. Damage to watersheds should be avoided from activities such as livestock grazing, application of farm chemicals and road or building construction.
13. Intensive development within designated watersheds that would adversely affect the quantity and quality of water produced should be prevented. One possible course of action in this regard is to authorize the Planning Commission to consider all development within 800 feet of an existing or potential withdrawal point of public water supply, and other sensitive areas within the watershed, as a conditional use. Unless approved by the County Sanitarian and Planning Commission, residential development without sanitary sewers should probably be prohibited in these areas. Where necessary restrictions within a watershed preclude any reasonable and economic use of the land, the land should probably be in public ownership.
14. There are twelve lakes and reservoirs one acre or larger in size within the Central Valley area.
15. Groundwater resources are little developed in Hood River County. Contamination of groundwater can cause future problems.
16. There are no significant wetland areas within the Central valley area.
17. Significant water quality problems exist along stretches of the East Fork Hood River, Baldwin Creek and Neal Creek.
18. Setback requirements from waterways for septic tank drainfields and concentrations of livestock can help prevent degradation of water quality.
19. The Odell sewage treatment plant is nearing its design capacity.
20. Water quality remains high within the Columbia Gorge Area.

21. There is no domestic water district within the Gorge Area.
22. There is a state law that restricts the use of water from streams that have waterfalls in the Columbia Gorge.
23. The use of groundwater in the Gorge is limited at the present time.
24. Riparian areas along the Columbia River that remain relatively undisturbed are often locations that are important for fish and wildlife habitat.
25. According to the Oregon State Department of Environmental Quality, the air quality of the Hood River atmospheric area (air shed) is predominantly affected by gaseous and particulate matter from sources in the immediate area.
26. The major contributor to air pollution in the area is automobile emissions.
27. Slash burning in the gorge area may also contribute to smoke pollution in the spring and fall months.
28. Lumber mill operation in Bingen, Washington contributes to air pollution in the Hood River area.
29. Smudge pot operations during the early spring, primarily in the Pine Grove area, have not had any apparent adverse effect in the City of Hood River/Westside area.
30. Generally the Hood River atmospheric area air quality is good. Particulate and gaseous pollutant levels are characteristic for an area of this size and type.
31. State or federal ambient air standards are currently not being exceeded.
32. Wind transport patterns and overall meteorological characteristics are such that pollutant build-up would not be expected with the present level of commercial, industrial and human activities.
33. According to the Oregon State Department of Environmental Quality (DEQ), the air quality of the Hood River Valley air shed is predominantly affected by gaseous and particulate matter from sources in the immediate area.
34. Primary sources of air pollution are forest slash burning, industrial, emissions, smudge pot operations, and automobile emissions.
35. Wind transport patterns and overall meteorological characteristics are such that pollutant build-up is not presently exceeding state or federal ambient air standards.

36. Generally, the Hood River atmospheric area air quality is good. Particulate and gaseous pollutant levels are characteristic for an area of this size and type.
37. Air quality in the Columbia Gorge is generally high.
38. Major pollutants in the Planning Area are automobile exhaust and smoke from forest slash burning.
39. The air quality for the Gorge Area is designated Class II under the Federal Clean Air Act. This allows for moderate degradation from a pure air standard.
40. Add the additional Policies and Strategies in Section A., 7 into the County Policy Document.