AIR & WATER QUALITY

Water Quality

The Department of Environmental Quality is the state agency with the primary responsibility for managing water quality in the state. Generally, the focus of regulations is on managing pollution sources so that defined water quality standards are met. For surface waters, the source of pollution is defined as either a point source or a nonpoint source. Generally, pollutants originating from industrial and municipal waste sources are defined as point sources. Pollutants originating from dispersed activities associated with agriculture, forestry, and urban activities are defined as nonpoint sources.

Point Source Pollution

There is only one point source of pollution in the city, the city's wastewater treatment system. The city has consistently met the discharge requirements of it's National Pollution Discharge Elimination Permit System (NPDES) permit. The city's NPDES permit was renewed in 1993 and is effective until June 30, 1998. The DEQ has begun review of the city's permit.

Nonpoint Source Pollution

There are three main regulatory programs to protect surface waters from nonpoint source pollution, the Coastal Nonpoint Pollution Control Program (CNPCP), Section 303(d) of the Clean Water Act, and the Environmental Protection Agency's (EPA) Phase II Regulations under Section 402 of the Clean Water Act.

Coastal Nonpoint Pollution Control Program

In 1990, the U.S. Congress adopted new water quality requirements for states that have federally approved coastal resource management programs. That requirement is generally referred to as the Coastal Nonpoint Pollution Control Program (CNPCP). In Oregon, the Department of Land Conservation and Development(DLCD) and the Department of Environmental Quality (DEQ) are responsible for the development of that program. The goal of the program is to protect coastal waters from nonpoint source pollution.

In January of 1998, the Environmental Protection Agency (EPA) informed the DLCD and DEQ that Oregon's plan of action to comply with the CNPCP had been conditionally approved. Consistent with EPA requirements, Oregon's program is organized by categories for agricultural activities, forest activities, urban areas, marinas and recreational boating, hydromodification, and wetland protection. In order to meet water quality objectives, Oregon's program relies on state agencies and local government to implement program elements referred to as management measure. Management measures are ways of doing things that will reduce nonpoint source pollution. Most of the management measures pertinent to Cannon Beach are defined as urban management measures.

There are also several measures in the hydromodification and wetlands protection components that are relevant to the city.

The management measures that are applicable to Cannon Beach have the following objectives:

- The protection of wetlands, streams and associated riparian areas;
- The promotion of the restoration of wetland and riparian areas;
- The reduction of sedimentation and erosion;
- Limiting the increase in post development storm water runoff rates and volumes; and;
- A reduction in the pollution of surface waters caused by chemicals and nutrient sources.

For the city to achieve these objectives, various approaches are required. Some objectives can be achieved through regulatory means, for example the protection of wetlands, streams and associated riparian areas. Other objectives require specific actions, such as wetland restoration. To achieve some objectives, such as limiting the pollution of surface waters by the application and disposal of lawn and garden care products, the city's role is primarily one of education.

The following is an analysis of the city's existing planning and regulatory framework in terms of the five objectives listed above.

Protection of Wetlands, Streams and Associated Riparian Areas

There are two types of wetlands within the city's urban growth boundary, estuarine wetlands and nonestuarine wetlands.

Estuarine wetlands are associated with Ecola Creek. The city's comprehensive plan contains an Ecola Creek Estuary Plan Policy section. The Ecola Creek Estuary Plan's stated purpose is to protect the natural resources of the creek area. Pursuant to this purpose, only uses with minimal impact on the estuary are permitted. The following are policies that are relevant to nonpoint source pollution control measures:

> *Ecola Creek Estuary Policy 3 Alterations to the shoreline or the creek which will alter the flow of the stream are not permitted.*
>
> *Ecola Creek Estuary Policy 4 Riparian vegetation along Ecola Creek shall be protected, except where removal is permitted in conjunction with an approved use or activity.*

Ecola Creek Estuary Policy 7 *The management and improvement of Les Shirley Park shall be compatible with Ecola Creek environment. Natural vegetation shall be retained, particularly along Ecola and Logan Creeks*

Ecola Creek Estuary Policy 15 *Proper management of existing stream side vegetation is the preferred method of shoreline stabilization followed by the planting of vegetation. Where vegetative protection is inappropriate (because of high erosion rate, the use of the site, or other factors), structural means such as riprap or bulkheading may be considered, if consistent with the restrictions in the estuarine zone.*

Downtown Policy 11 The City will prepare a management plan for the estuarine area located east of Spruce Street. The intent of this management plan shall be to preserve the integrity of the estuarine area while accommodating the storm water that it drains.

Uses and activities in the estuarine area are regulated by Estuarine zone standards in the zoning ordinance. The purpose of the Estuarine zone is to assure the protection of fish and wildlife habitats, maintain the biological productivity of the estuary, and provide low-intensity uses that do not require major alterations to the estuary. Consistent with these purposes, only a limited number of uses and activities are permitted in the estuary. The Estuarine zone contains standards that address specific management measures contained in the CNPCP:

- Bridge crossing and bridge crossing support structure standards require that the repair and placement of a bridge is conducted in a manner that minimizes the impact on the estuarine environment.
- Riparian vegetation is protected.
- The active restoration of fish and wildlife habitat and estuarine enhancements are permitted as conditional uses.

In summary, the city has management measures in place to protect estuarine wetlands from potential adverse effects of specific uses and activities as identified in the CNPCP.

The following comprehensive plan policies are applicable to the objective of protecting nonestuarine wetlands located within the city:

General Development Policy 14. *To ensure that development is designed to preserve significant site features such as trees, streams and wetlands.*

Northside Policy 1. *The Northside area, the area north of Ecola Creek, shall remain primarily residential in character. Development should take place only in a manner that is compatible with sensitive lands, steep slopes, active foredunes, areas subject to flooding, wetlands and stream banks.*

Northside Policy 8. Clustering of development may be considered in order to reduce the effect of geologic hazards, protect trees and wetland areas, and to retain larger areas of open space. Where cluster development is permitted, wetland areas shall not be used in determining the permitted density of the development (no density transfer from wetland to upland areas).

The wetland overlay zone implements the city's goal of protecting nonestuarine wetlands. The wetland overlay zone contains standards that address specific management measures contained in the CNPCP:

- Standards to protect wetlands and an adjacent buffer;
- Standards that minimize the amount of fill permitted;
- Standards that address construction practices in wetlands in order to minimize impact on wetlands, including contamination with construction waste or debris;
- Control of stormwater discharged into the wetland;

In summary, the city has management measures in place to protect nonestuarine wetlands from adverse effects of uses and activities as identified in the CNPCP.

The following comprehensive plan policies are applicable to the objective of stream and riparian area protection:

General Development Policy 14 To ensure that development is designed to preserve significant site features such as trees, streams and wetlands.

Northside Policy 1 The Northside area, the area north of Ecola Creek, shall remain primarily residential in character. Development should take place only in a manner that is compatible with sensitive lands, steep slopes, active foredunes, areas subject to flooding, wetlands and stream banks.

Northside Policy 4 Les Shirley Park shall be maintained and improved in a manner that is compatible with the Ecola Creek estuary and adjacent residential development. Riparian vegetation adjacent to Ecola Creek and Logan Creek shall be left in its natural condition.

Northside Policy 5. A fifteen foot buffer on either side of Logan Creek is established to protect riparian vegetation. In order to minimize impacts on riparian vegetation, uses and activities permitted within the buffer shall be limited.

The integrity of Ecola Creek is protected by the standards in the estuary zone. The stream corridor protection standards in the zoning ordinance provide protection for other streams in the city. The stream corridor protection section contains standards that address specific management measures contained in the CNPCP:

- A minimum ten foot buffer on either side of a stream, with only a limited number of activities permitted within the buffer;
- Standards that control the removal of riparian vegetation
- Priorities for stream bank protection, with management of existing stream-side vegetation being the highest priority;
- A standard which limits the placement of culverts and stream channelization; and
- Regulation of the discharge of storm water into streams.

In summary, the city has management measures in place to protect streams and adjacent riparian areas from adverse effects of uses and activities, as identified in the CNPCP.

Restoration of Wetland and Riparian Areas

The state of Oregon has embarked on a program to restore native anadromous fish populations by conserving and restoring the aquatic systems that support them. This program is referred to as the Oregon Plan. The Oregon Plan is based on a watershed planning approach. Watershed councils have been formed to provide a forum for interested parties and landowners to cooperate in the development of a plan of action for the improvement of aquatic habitat within that watershed. Elements of the planning process include an assessment of the condition of the watershed, an action plan and monitoring measures.

Cannon Beach is located within the Ecola Creek watershed. A watershed council was formed in 1997. As of the spring of 1998, initial assessment work is underway. The vast majority of land within the watershed is forest land located east of the city's urban growth boundary. However, the city contains the estuarine portion of the watershed. With the development of the city, this area has been subject to substantial alteration. A number of these altered areas may represent opportunities for estuarine restoration or enhancement. The city's comprehensive plan and zoning ordinance permit active restoration of fish habitat and estuarine enhancement measures.

In summary, the city has management measures in place that would permit the restoration of estuarine wetland and riparian areas.

Sedimentation and Erosion Control

The following comprehensive plan policies address sedimentation and erosion control

> *General Development Policy 4 The City shall control excavation, grading, and filling in order to: avoid landslides and other geologic hazards; protect adjacent property and structures; provide for appropriate drainage improvements; minimize the extent of vegetation removal; minimize erosion and sedimentation; and protect the aesthetic character of the City.*
>
> *Air, Water and Land Quality Policy 3. The City will adopt and implement erosion and sedimentation control measures to protect water quality, fish and wildlife habitat, and its investment in the storm drainage system.*

These policies are implemented by the grading, sedimentation and erosion control section of the zoning ordinance, as well as standards in the subdivision ordinance which require the preparation and implementation of grading plans and sedimentation and erosion control plans. These city provisions contain standards that address specific management measures contained in the CNPCP:

- Require preparation of an erosion and sediment control plan;
- Encourage minimum land disturbance;
- Controls grading; and
- Require that sediment be retained onsite during and after construction.

In summary, the city has management measures in place to meet the CNPCP' s objective of limiting the impact of sedimentation and erosion on the city's water bodies.

Storm Water Management

The CNPCP contains two types of management measures relevant to this objective, measures to limit the quantity of storm water generated by development and measures to affect the quality of storm water. Oregon's CNPCP proposes to develop recommendations for local government on the best management practices to achieve these objectives. When such recommendations become available, the city will consider, at least at the time of its next periodic review, the adoption of those recommended measures as part of its public facility improvement standards.

The city has implemented several stormwater management measures. Residential development in the city is limited to a maximum lot coverage of 50%. This standard meets the objective of limiting the increase in impervious surfaces. The city's tree removal requirements and land clearing standards limit land disturbance during construction.

Pollution prevention

Applicable pollution prevention management measures address the following issues: the improper disposal of household chemicals, the application of lawn and garden herbicides, and the discharge of oil into the storm drainage system. The CNPCP proposes the development of information and technical assistance for local governments to use in educating the public on these issues. The city will utilize this material when it becomes available.

The city has implemented a number of measures designed to reduce the types of pollution identified by the CNPCP. In conjunction with the DEQ, the city has held several one day household hazardous waste collection events. The city plans to schedule additional collections in the future. The city has an unwritten policy of not using herbicides in the maintenance of its parks and landscaped areas.

Section 303(d) of the Clean Water Act

As required by Section 303(d) of the Clean Water Act, the Oregon Department of Environmental Quality (DEQ) recently completed (1998) an inventory of the water quality of the streams in the state. The streams found not to meet water quality standards were designated "water quality limited streams." Ecola Creek and Logan Creek were not placed on the list of "water quality limited streams." This indicates that these two streams are not experiencing significant levels of water quality degradation. As a consequence of not being placed on the list of "water quality limited streams," the DEQ is not required to develop Total Maximum Daily Loads (TMDLs) for Ecola Creek or Logan Creek.

EPA Phase II Regulations

In 1987, the Clean Water Act was expanded to include the regulation of storm water discharge. The legislation required that certain stormwater discharges obtain a National Pollution Discharge Elimination System (NPDES) permit The legislation also created a phased approach to regulating storm water discharges, beginning with large municipal and industrial sources (Phase I Regulations). On January 9, 1998, the Environmental Protection Agency (EPA) published its proposed Phase II regulations. The regulations are to become effective on March 1, 1999. These regulations will extend the scope of stormwater regulations by including smaller municipalities and covering construction sites of between one and five acres (Construction sites of five acres or more are already regulated by the DEQ under Phase I regulations). All municipal stormwater systems are "potentially designated" as subject to Phase II requirements. For cities located outside the state's major metropolitan areas, the DEQ is charged with evaluating these systems based on criteria developed to assess their impact on water quality. The DEQ must apply the criteria to cities serving a population of more than 10,000. It is not known whether the DEQ will apply the Phase II regulations to Cannon Beach. It is assumed that in the near term, the DEQ will focus on cities with a population of more than 10,000.

The city requires that construction on sites of between one and five acres prepare and implement erosion and sedimentation control plans. The DEQ has not determined how the proposed NPDES permit requirement for construction sites of between one and five acres will be integrated with existing local programs.

Groundwater

There is limited information available on the quality of groundwater located within Cannon Beach.

Between 1988 and 1990, the city investigated the feasibility of augmenting its municipal water supply through the development of a groundwater source. Groundwater was identified as a viable source of supply and test wells were drilled adjacent to Ecola Creek, east of the recreational vehicle park. The well tests determined that well field development could yield approximately 120 to 125 gallons per minute per field. However, water quality analysis found that the water was high in both iron and manganese. The iron levels were from eight to 20 parts per million and the manganese

levels were approximately two parts per million. In 1990, the drinking water limit for iron was .3 parts per million and for manganese it was 0.05 parts per million. Consequently, the use of the groundwater as a municipal water source would require treatment to remove the iron and manganese. The city determined that this option was no cost effective.

The city does not contain any sensitive groundwater areas that have been identified by the Department of Environmental Quality.

In order to identify potential sources of groundwater pollution, the DEQ's "Environmental Cleanup Site Information System" was reviewed. No Cannon Beach sites are identified on the list.

The DEQ's Leaking Underground Storage Tank (LUST) list includes two sites in Cannon Beach. The Cannon Beach Rural Fire Protection District downtown fire station and a residence located at 234 Noatak. The Cannon Beach Rural Fire Protection District has completed the removal and cleanup of its underground storage tank. However, the DEQ has not completed its paperwork in order to remove the site from its list. The site at 234 Noatak is a home heating oil tank.

There are three gasoline service stations in Cannon Beach, one of which is inoperative, Sage's. Gary's Cannon Beach Service Center and the Cannon Beach RV Resort have upgraded their storage tanks to meet current standards. Sage's will be required to decommission its two tanks by December 22, 1998. No contamination in conjunction with these sites has been identified.

Air Quality

In 1974, the Environmental Protection Agency (EPA) issued air quality regulations under the 1970 version of the Clean Air Act (P.L. 91-604) for the prevention of significant deterioration of air quality (PSD). These regulations established a scheme for protecting areas with air quality cleaner than the national ambient air quality standards (NAAQS). EPS's prevention of significant deterioration regulatory scheme was further modified by 1977 amendments to the Clean Air Act (P.L. 95-95).

Under existing EPA regulations, "clean areas" of the nation can be designated under one of three "classes". Specified numerical "ambient increments" of net air pollution increases are permitted under each class up to a level considered to be significant for that area. Class I increments permit only insignificant air quality deterioration; Class II.increments permit moderate deterioration; Class III increments allow for the greatest amount of deterioration, but in no case beyond the national air quality standards.

Under the Federal regulations, all areas of the state are automatically classified as Class II areas, except for mandatory Class I areas and "non-attainment" areas. The area classification scheme is administered and enforced through a pre-construction and pre-modification permit program for specific types of stationary air pollution sources. No such air pollution sources could begin construction or modification unless EPA and DEQ have found that the source's emissions will not exceed the numerical "increments" for the applicable class, and that the source would use the best available air pollution control technology.

Under this classification scheme, Cannon Beach is a Class II area. According to DEQ's Handbook for Environmental Quality Elements of Oregon Local Comprehensive Plans, the Cannon Beach airshed has 100% of its Class II TSP and S02 "increments" still available to it. This implies that some air quality deterioration, through industrial development, could take place without exceeding national air quality standards. However, there is presently no industrial development in Cannon Beach, nor does this plan make provision for new industrial uses. Land use provisions in the comprehensive plan will not result in a "using up" of Class II PSD increments for the area. Thus it has been determined that Cannon Beach's comprehensive plan does not appear to conflict with Class II PSD air quality standards.

Using the method contained in DEQ's Handbook, a calculation was made to determine whether there is a violation of the carbon monoxide air quality standards.

Within the Cannon Beach area, only Highway 101 carries substantial amounts of traffic. The Department of Transportation's Traffic Volume Tables for 1977 indicates that 4300 vehicles per day use the highway at the north entrance to Cannon Beach. This is well below the volume of traffic necessary to generate an excess of carbon monoxide. Due to the capacity limitations of Highway 101, traffic volume in 1990 will also not result in excessive carbon monoxide levels, Thus it has been determined that the needs within the comprehensive plan area do not cause existing or future violations of 8-hour carbon monoxide standards. The winds in Cannon Beach, from the southwest in the winter and northwest in the summer, provide adequate ventilation for the pollutants that accumulate in the downtown area. Traffic figures are not available for the downtown area, although long time residents report that the "new highway" and the Spruce Street improvement have substantially reduced traffic congestion in the downtown area.

Solid Waste

The solid waste collection system for Cannon Beach is operated by a private collector who is franchised by the city. Disposal of solid waste is done at a nearby (to the city) open-burning dump owned and operated by the collector. As with jurisdictions using other Clatsop County disposal sites, Cannon Beach is working with the Clatsop County Solid Waste District to find a permanent sanitary landfill site. Present dump sites are operating under permit extensions from the State Department of Environmental Quality. Cannon Beach also funds and operates a recycling center for the collection of glass, tin, aluminum, paper and cardboard. It is apparent.that the recycling center has had a major impact by reducing the amount of solid waste normally dumped at disposal sites now being used by the community. CTIC membership also has directed its staff members to prepare recommendations for a two-county cooperative effort to deal with solid waste disposal and recycling of reusable materials.

AIR QUALITY
SUMMARY OF ESTIMATED ANNUAL EMISSIONS
(TONS/YEAR) BY SOURCE CATEGORY
CLATSOP COUNTY

TOTAL PARTICULATES

SOURCE CATEGORY	TONS/YEAR
A. Fuel Combustion Sources:	
1. Residential Fuel Combustion	6
2. Commercial Fuel Combustion	41
3. Industrial Fuel Combustion	349
TOTAL FUEL COMBUSTION	407
B. Process Loss Sources:	
1. Chemical Industries	0
2. Food/Agriculture Industries	66
3. Metallurgical Industries	0
4. Mineral Products Industries	44
5. Petrochemical Industries	0
6. Wood Processing Industries	687
7. Other Industries	0
TOTAL PROCESS LOSS	799
C. Transportation Sources:	
1. Motor Vehicles	216
2. Off-Highway Fuel Use	6
TOTAL TRANSPORTATION	223
D. Solid Waste Sources:	
1. Incineration	0
2. Open Burning	33
3. Wigwam Waste Burners	0
TOTAL SOLID WASTE	33
E. Miscellaneous Area Sources:	
1. Field Burning	0
2. Forest Fires	64
3. Slash Burning	66
4. Other	25
TOTAL MISCELLANEOUS	156

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SUMMARY BY SOURCE CLASS:

1.	AREA SOURCES	422
2.	POINT SOURCES	1,197
	TOTAL OF ALL SOURCES	1,620

SUMMARY OF ESTIMATED ANNUAL EMISSIONS
(TONS/YEAR BY SOURCE) CATEGORY
CLATSOP COUNTY

SULFUR OXIDES

SOURCE CATEGORY	TONS/YEAR
A. Fuel Combustion Sources:	
1. Residential Fuel Combustion	78
2. Commercial Fuel Combustion	395
3. Industrial Fuel Combustion	1,046
TOTAL FUEL COMBUSTION	1,519
B. Process Loss Sources:	
1. Chemical Industries	0
2. Food/Agriculture Industries	0
3. Metallurgical Industries	0
4. Mineral Products Industries	0
5. Petrochemical Industries	0
6. Wood Processing Industries	83
7. Other Industries	0
TOTAL PROCESS LOSS	83
C. Transportation Sources:	
1. Motor Vehicles	73
2. Off-Highway Fuel Use	7
TOTAL TRANSPORTATION	80
D. Solid Waste Sources:	
1. Incineration	0
2. Open Burning	2
3. Wigwam Waste Burners	0
TOTAL SOLID WASTE	2
E. Miscellaneous Area Sources:	
1. Field Burning	0
2. Forest Fires	0
3. Slash Burning	0
4. Other	115
TOTAL MISCELLANEOUS	115

SUMMARY BY SOURCE CLASS:	
1. AREA SOURCES	561
2. POINT SOURCES	1,240
TOTAL OF ALL SOURCES	1,801
AS OF 06/15/78	

SUMMARY OF ESTIMATED ANNUAL EMISSIONS
(TONS/YEAR BY SOURCE) CATEGORY
CLATSOP COUNTY

NITROGEN OXIDES

SOURCE CATEGORY	TONS/YEAR
A. Fuel Combustion Sources:	
1. Residential Fuel Combustion	52
2. Commercial Fuel Combustion	121
3. Industrial Fuel Combustion	803
TOTAL FUEL COMBUSTION	977
B. Process Loss Sources:	
1. Chemical Industries	0
2. Food/Agriculture Industries	0
3. Metallurgical Industries	0
4. Mineral Products Industries	0
5. Petrochemical Industries	0
6. Wood Processing Industries	0
7. Other Industries	0
TOTAL PROCESS LOSS	0
C. Transportation Sources:	
1. Motor Vehicles	1,958
2. Off-Highway Fuel Use	75
TOTAL TRANSPORTATION	2,034
D. Solid Waste Sources:	
1. Incineration	0
2. Open Burning	12
3. Wigwam Waste Burners	0
TOTAL SOLID WASTE	12
E. Miscellaneous Area Sources:	
1. Field Burning	0
2. Forest Fires	14
3. Slash Burning	14
4. Other	225
TOTAL MISCELLANEOUS	255

SUMMARY BY SOURCE CLASS:

1.	AREA SOURCES	2,481
2.	POINT SOURCES	797
	TOTAL OF ALL SOURCES	3,279
	AS OF 06/15/78	

SUMMARY OF ESTIMATED ANNUAL EMISSIONS
(TONS/YEAR BY SOURCE) CATEGORY
CLATSOP COUNTY

CARBON MONOXIDE

SOURCE CATEGORY	TONS/YEAR
A. Fuel Combustion Sources:	
1. Residential Fuel Combustion	13
2. Commercial Fuel Combustion	9
3. Industrial Fuel Combustion	85
TOTAL FUEL COMBUSTION	108
B. Process Loss Sources:	
1. Chemical Industries	0
2. Food/Agriculture Industries	0
3. Metallurgical Industries	0
4. Mineral Products Industries	0
5. Petrochemical Industries	0
6. Wood Processing Industries	3,671
7. Other Industries	0
TOTAL PROCESS LOSS	3,671
C. Transportation Sources:	
1. Motor Vehicles	16,815
2. Off-Highway Fuel Use	714
TOTAL TRANSPORTATION	17,529
D. Solid Waste Sources:	
1. Incineration	0
2. Open Burning	176
3. Wigwam Waste Burners	1
TOTAL SOLID WASTE	177
E. Miscellaneous Area Sources:	
1. Field Burning	0
2. Forest Fires	460
3. Slash Burning	475
4. Other	74
TOTAL MISCELLANEOUS	1,011

SUMMARY BY SOURCE CLASS:

1.	AREA SOURCES	18,564
2.	POINT SOURCES	3,933
	TOTAL OF ALL SOURCES	22,497
	AS OF 06/15/78	

SUMMARY OF ESTIMATED ANNUAL EMISSIONS
(TONS/YEAR BY SOURCE) CATEGORY
CLATSOP COUNTY

TOTAL ORGANICS

SOURCE CATEGORY	TONS/YEAR
A. Fuel Combustion Sources:	
1. Residential Fuel Combustion	3
2. Commercial Fuel Combustion	6
3. Industrial Fuel Combustion	56
TOTAL FUEL COMBUSTION	66
B. Process Loss Sources:	
1. Chemical Industries	0
2. Food/Agriculture Industries	1
3. Metallurgical Industries	0
4. Mineral Products Industries	0
5. Petrochemical Industries	0
6. Wood Processing Industries	1
7. Other Industries	0
TOTAL PROCESS LOSS	2
C. Transportation Sources:	
1. Motor Vehicles	2,245
2. Off-Highway Fuel Use	40
TOTAL TRANSPORTATION	2,286
D. Solid Waste Sources:	
1. Incineration	0
2. Open Burning	62
3. Wigwam Waste Burners	0
TOTAL SOLID WASTE	62
E. Miscellaneous Area Sources:	
1. Field Burning	0
2. Forest Fires	86
3. Slash Burning	89
4. Other	340
TOTAL MISCELLANEOUS	516

SUMMARY BY SOURCE CLASS:	
1. AREA SOURCES	2,813
2. POINT SOURCES	121
TOTAL OF ALL SOURCES	2,934
AS OF 06/15/78	