

FACT SHEET

United States Environmental Protection Agency (EPA)  
Region 10  
Park Place Building, 13th Floor  
1200 Sixth Avenue, WD-134  
Seattle, Washington 98101  
(206) 553-1214

Date: SEP 14 1994

Permit No.: ID-000001-9

PROPOSED REISSUANCE OF A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE POLLUTANTS PURSUANT TO THE PROVISIONS OF THE CLEAN WATER ACT (CWA)

**POTLATCH CORP. - ST. MARIES PLYWOOD**

has applied for reissuance of a NPDES permit to discharge pollutants pursuant to the provisions of the CWA. This Fact Sheet includes (a) the tentative determination of the EPA to reissue the permit, (b) information on public comment, public hearing and appeal procedures, (c) the description of the current discharge, (d) a listing of tentative effluent limitations, schedules of compliance and other conditions, and (e) a sketch or detailed description of the discharge location. We call your special attention to the technical material presented in the latter part of this document.

Persons wishing to comment on the tentative determinations contained in the proposed permit reissuance may do so by the expiration date of the Public Notice. All written comments should be submitted to EPA as described in the Public Comments Section of the attached Public Notice.

After the expiration date of the Public Notice, the Director, Water Division, will make final determinations with respect to the permit reissuance. The tentative determinations contained in the draft permit will become final conditions if no substantive comments are received during the public notice period.

The permit will become effective 30 days after the final determinations are made, unless a request for an evidentiary hearing is submitted within 30 days after receipt of the final determinations.

The proposed NPDES permit and other related documents are on file and may be inspected at the above address any time between 8:30 a.m. and 4:00 p.m., Monday through Friday. Copies and other information may be requested by writing to EPA at the above address to the attention of the Water Permits Section, or by calling (206) 553-1214. This material is also available from the EPA Idaho Operations Office, 422 West Washington Street, Boise, Idaho 83702.

## TECHNICAL INFORMATION

1. Applicant

Potlatch Corp. - St. Maries Plywood  
P.O. Box 1016  
Lewiston, ID. 83501

Contact: Les Fillgrove, Environmental Manager  
Phone: 208-799-1032

Permit No.: ID-000001-9

The Potlatch Corporation owns and operates a log storage yard and plywood/veneer mill located at St. Maries, Idaho. Timber is stored on site (wet decked) prior to use at the facility. Nonprocess wastewater discharge sources are commingled into outfall 001. The discharge consists of log yard runoff (annual average of approximately 403,000 gpd) for four months of the year (June - September), and noncontact cooling water from power generation and plywood manufacturing processes (approximately 78,000 gpd). Some of the cooling water is used to sprinkle the log deck. At this time, log deck runoff is not recycled.

The permittee stated that no anti-fouling chemicals are used in the cooling water systems (personal communication, Les Fillgrove, 6/30/94). Outfall 002 exists as an emergency bypass. According to company officials, the outfall is covered with a steel gate that is locked. The only potential for a discharge from this outfall is in the case of a catastrophic storm event. This outfall is not a permitted discharge; notification must be given immediately if a discharge occurs from 002.

2. Receiving Water

Discharges from the Potlatch facility are pumped to the St. Joe River at approximately River Mile 24. The Idaho Water Quality Standards and Wastewater Treatment Requirements identify the following beneficial uses for this segment (PB-330S) of the St. Joe River: agricultural water supply, cold water biota, primary contact recreation and secondary contract recreation [IDAPA 16.01.2110, 01.ii(mm)]. Idaho Department of Health & Welfare, Division of Environmental Quality (IDHW-DEQ) data indicate a 7Q10 of 521 cfs (337 mgd) and a 1Q10 of 500 cfs (323 mgd) (Attachment 1).

The St. Joe River is tributary to Coeur d'Alene Lake which is designated a special resource water in the State's water quality standards. The state water quality standards define special resource waters as those bodies of water which are

recognized as needing intensive protection:

- a. to preserve outstanding or unique characteristics,  
or
- b. to maintain current beneficial use.

The standards [IDAPA 16.01.02400,01(b)] specify that no new point source can discharge pollutants, and no existing source can increase its discharge of pollutants above the design capacity of its existing wastewater treatment facility, to any water designated as a special resource water or to a tributary of, or to the upstream segment of a special resource water: if such pollutants significant to the designated uses can or will result in a reduction of the ambient water quality of the receiving special resource water as measured immediately below the applicable mixing zone.

According to the Coeur d'Alene Tribe's Draft NPDES Assessment Report of June 1994, this reach of the St. Joe River has exceeded the temperature limits for cold water biota for both the Idaho state standards and the proposed Tribal standard for Class I special resource designation (19°C). In addition, nutrient limits set by EPA for aesthetic criteria have been exceeded. Increased suspended solids loadings and nutrient enhanced algal growth have impacted Coeur d'Alene Lake located approximately 20 miles downstream of the Potlatch discharge. Pollutant sources in addition to Potlatch include several municipal discharges, and nonpoint sources such as land development, forestry activities, road building, and agricultural practices.

### 3. Background

The Potlatch - St. Maries facility was initially issued NPDES permit number ID-000001-9 effective July 3, 1975; it continued in force until the permit was reissued effective August 23, 1983. The 1983 reissued permit expired on August 25, 1988. The permit was reissued effective March 6, 1989 with an expiration date of March 7, 1994. The company submitted an application for renewal of the permit on December 1, 1993. The permittee has been in compliance with the terms of the permit since initial permit issuance.

### 4. Basis for Effluent Limitations

The Clean Water Act (CWA) requires that all NPDES permitted discharges achieve technology-based effluent limitations established under Section 301, 306 or 402(a)(1), and comply with the state water quality standards established under §303 of the CWA. The NPDES regulations [40 CFR §122.44(d)] specifically require an NPDES permit to include effluent limitations for those pollutants that have a reasonable

potential to cause or contribute to an in-stream excursion above the allowable ambient concentration of a state water quality standard.

Effluent limitations guidelines have been promulgated by EPA for the Timber Processing Category that include Best Practicable Control Technology Currently Available (BPT) and Best Available Technology Economically Achievable (BAT) for both the Wet Storage Subcategory (40 CFR §429.100 et seq.) and the Plywood Subcategory (40 CFR §429.40 et seq.).

Best Conventional Pollutant Control Technology (BCT) has been proposed equal to BPT for both subcategories, but is currently reserved. Because EPA regulations require that BCT be no less stringent than BPT, and no new treatment technologies were recommended in proposing BCT requirements, BAT limitations should adequately address treatment of conventional pollutants.

Both BPT and BAT for the Wet Storage Subcategory specify that there shall be no debris discharged and the pH shall be within the range 6.0 to 9.0 standard units. The effluent guidelines define the term "debris" as meaning woody material such as bark, twigs, branches, heartwood or sapwood that will not pass through a 2.54 cm (1.0 inch) round opening [§429.11(i)]. BPT and BAT for the Plywood Subcategory prohibit the discharge of process wastewater pollutants. The term "process wastewater" as contained in the guidelines specifically excludes noncontact cooling water, material storage yard runoff, and boiler blowdown [§429.11(c)].

NPDES permit limitations must, as a minimum, apply the above referenced technology based requirements. More stringent limitations may be imposed, however, if required to protect state water quality standards.

As part of a national contract for effluent toxicity testing, EPA conducted bioassays on the applicant's discharge in July 1988. Based on results from acute salmonid and definitive Ceriodaphnia bioassays, the discharge was nontoxic. The character of the discharge has not changed since the 1988 bioassay was done.

The proposed permit contains discharge limitations based on the above referenced BAT guidelines for the Plywood and Wet Storage Subcategories of the Timber Processing Point Source Category.

Although EPA has not promulgated effluent guidelines for cooling water discharges, state water quality standards for protection of cold water biota prohibit discharges that would increase the stream temperature outside the mixing zone by

more than 1°C [IDAPA 16.01.02401.03(a)(iv)]. Because this section of the St. Joe River has violated the state's temperature criteria for cold water biota, the proposed permit includes a temperature limit. The discharge of cooling water at a reported maximum temperature of 22°C would receive at least a 671:1 dilution during low flow periods; therefore, compliance with state/tribe water quality standards outside an appropriate mixing zone is assured.

5. Basis for Monitoring Requirements

Self-monitoring of effluent parameters is necessary for the applicant to demonstrate compliance with effluent limitations and to assure that state water quality standards are met. Monitoring frequencies are based on the Agency's determination of the minimum sampling frequency required to adequately monitor the facility's performance. Required sample types are based on the Agency's determination of the potential for effluent variability. These determinations take into consideration several factors, of which the most important are the type of pollutants of concern and the type of treatment system.

Past monitoring frequencies requiring weekly monitoring of pH and flow will be retained in the proposed permit. In addition, the proposed permit includes a weekly monitoring requirement for temperature.

Several studies conducted in the Pacific Northwest in the last 20 to 30 years have documented the fact that log debris, bark, and wood leachates resulting from log handling in and/or near public waters can adversely affect water quality. We currently have limited data from the Potlatch-St. Maries facility to determine whether or not the discharge has the potential to violate water quality standards. Therefore, the proposed permit includes monitoring requirements for BOD, ~~COD~~, TSS, DO, Total Phosphorous, and ~~color~~ in order to determine the site-specific effects of this discharge.

7. Toxicity Testing

The Potlatch - St. Maries discharge is to a tributary of a special resource water (Lake Coeur d'Alene). The water quality of the lake has been impacted through the years due to point source discharges and numerous nonpoint source activities. In order to provide information on the effect of its discharge on the species in the area of the discharge, the proposed permits includes a toxicity testing requirement.

Testing is to be conducted during August of the fourth year of the permit when flows from all waste streams (log yard runoff and noncontact cooling water from power generation and

plywood manufacturing processes) are being discharged through Outfall 001. EPA selected August to be the testing period because it is the month when summer low flows occur in the receiving water and water quality problems (primarily nutrients) downstream of the discharge occur. The required toxicity testing is aimed at determining acute and chronic biological effects of the present discharge. Similar toxicity testing has been widely used by the Agency in ambient monitoring studies and has been required in other NPDES permits.

The pollutants of concern at the facility are currently being regulated through chemical specific limits. However, these controls alone cannot assure that complex effluent effects are not occurring. In addition, section 16.01.02200.01 of the Idaho Water Quality Standards and Wastewater Treatment Requirements requires surface waters of the state to be free from hazardous materials in concentrations found to be of public health significance or to adversely affect designated or protected beneficial uses. These toxicity tests will be used to establish the chronic toxicity levels of the effluent using two bioassays: Pimephales promelas (fathead minnow) - static renewal, larval survival, and growth tests; and Ceriodaphnia dubia (daphnia) - 7-day static renewal, survival, and reproduction tests.

The objective of the tests is to have effluent concentrations in the receiving stream less than the known toxic effects concentration, which can be expressed as follows:

$$IWC \leq NOEC$$

where,

IWC = the instream waste concentration or the concentration of effluent in the receiving stream after mixing, and

NOEC = the no observed effect concentration of the highest measured concentration or the highest measured concentration of effluent that caused no observed effect on a test organism.

Both IWC and NOEC are expressed as percent effluent. The higher the IWC, the greater the percentage of effluent in the receiving water. If the above equation is satisfied, then the receiving stream is protected against aquatic toxicity.

The proposed permit has established the IWC, for the Potlatch facility at St. Maries, at 1 percent effluent. The IWC is based on the dilution available in the receiving water. The Idaho Water Quality Standard for mixing zones (IDAPA 16.01.2400,03.e.iv) allows 25% of the receiving stream flow for the mixing zone. The IWC is calculated as follows:

$$IWC = \frac{Q_{\text{effluent}}}{25\%Q_{\text{stream}} + Q_{\text{effluent}}}$$

where,

$Q_{\text{effluent}}$  = effluent flow, and

$Q_{\text{stream}}$  = receiving water flow.

therefore,

$$IWC = \frac{0.6}{(.25)500 + 0.6} = 0.005 = 0.1\%, \text{ rounded to the next full percent} = \underline{1\%}$$

The proposed permit requires testing of the effluent, at outfall 001, in August of 1999. If the NOEC is less than or equal to 1%, in any test, then the permittee must conduct an additional six accelerated tests.

If acute toxicity is demonstrated during the chronic tests, the permittee is required to report the  $LC_{50}$ . The  $LC_{50}$  is the pollutant concentration at which 50 percent of the test organisms are killed. If acute toxicity is demonstrated at a dilution of less than or equal to 1%, in any test, then an additional six accelerated acute tests are required.

The toxicity tests shall include a series of six dilutions from control water to 100% effluent such that it includes the expected dilution at the outfall.

If the accelerated testing also indicates acute or chronic toxic effects in the effluent, then the permittee must submit to EPA a Toxicity Identification Evaluation (TIE) plan. A Toxicity Reduction Evaluation (TRE) may be required.

#### 7. Site BMP/Storm Water PPP

Section 402(p)(2)(B) of the CWA requires EPA to include conditions in the NPDES permit that require the permittee to develop a Best Management Practices (BMP) plan. The BMP plan will be used to control the discharge of toxics or hazardous pollutants by way of spillage or leaks, sludge or waste disposal, and drainage from raw material storage. EPA is authorized under 40 CFR §122.44(k)(2) to impose BMPs in lieu of numeric effluent limitations in NPDES permits when the Agency finds numeric effluent limitations to be infeasible.

The intent of the BMP plan is to recognize the hazardous nature of various substances used and produced by the facility and the way such substance may be accidentally dispersed. The BMP plan should incorporate elements of pollution prevention

as set forth in the Pollution Prevention Act of 1990, 42 U.S.C. 13101.

The BMP plan must be amended whenever there is a change in the facility or in the operation of the facility which materially increases the potential for an increased discharge of pollutants. The BMP plan will become an enforceable condition of the permit. A violation of the BMP plan is a violation of the permit.

Section 402(p)(2)(B) of the CWA also requires EPA to address storm water discharges associated with industrial activities within the framework of the NPDES permitting process. In September of 1992, a general permit was issued to cover a wide range of storm water discharges associated with industrial activity. The Potlatch Corporation submitted a Notice of Intent (NOI) to cover the St. Maries Plywood facility under this permit, and was issued permit number ID-R-00A093 on September 30, 1992. The general permit required that - by October 1, 1993 - the facility must have implemented and be in compliance with its Pollution Prevention Plan; it further required that the Pollution Prevention Plan be retained on site.

According to company representatives, the Pollution Prevention Plan has been completed and implemented at the site. Therefore, the proposed permit does not include Storm Water Program provisions.

Storm water that discharges through outfall 001 is not covered under the storm water regulations because it has commingled with other discharge streams. It becomes subject to the effluent guidelines for the plywood mill.

#### 8. Endangered Species Act

Sections 7(a) and (c) of the Endangered Species Act (ESA) require federal agencies to request a consultation with the Services regarding potential effects an action may have on listed endangered species. EPA requested a listing of threatened and endangered species in the vicinity of the Potlatch - St. Maries discharge from the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS). A letter from NMFS dated December 16, 1993, indicated that there were no threatened or endangered species under their jurisdiction in the vicinity of the discharge. This determination was reaffirmed on July 11, 1994. A letter from the USFWS dated January 7, 1994 indicated there were no threatened or endangered species under their jurisdiction in the vicinity of the discharge. This determination was reaffirmed on August 31, 1994.



9. Other Requirements

40 CFR §122.41(e) requires the permittee to properly operate and maintain all facilities which are used by the permittee to achieve compliance with the conditions of the permit. It requires the permittee to ensure adequate laboratory controls and appropriate quality assurance procedures.

The proposed permit requires the permittee to develop Quality Assurance Project Plans (QAPPs) in accordance with EPA-approved quality assurance and quality control (QA/QC) procedures. The permittee is required to ensure the data quality of its contract laboratories. The permittee shall submit its QAPPs to EPA and IDHW-DEQ for review and approval.

The permittee shall amend the QAPPs whenever there is a modification in the sample collection, the sample analysis, or any conditions/requirements that are not specified in the existing QAPPs. The conditions and requirements specified in the QAPPs are part of the permit. Noncompliance with the conditions and requirements of the QAPPs shall constitute noncompliance with the permit.

The permit will be effective for a period of five years and will be subject to modification or revocation in the event that the Coeur d'Alene Lake Management Plan indicates more restrictive limits need to be included in this permit to protect the lake. A map of the facility location and a schematic of the water flow for the plant are included as Attachment 2 of the Fact Sheet.



IDAHO DEPARTMENT  
OF HEALTH AND WELFARE  
DIVISION OF  
ENVIRONMENTAL QUALITY

ATTACHMENT 1

2110 Ironwood Parkway, Coeur d'Alene, ID 83814-2840, (208) 769-1422

Cecil D. Andrus, Governor

July 26, 1994

Nickie Arnold  
EPA, Idaho Operations Office  
422 West Washington Street  
Boise, ID 83702

RECEIVED  
JUL 29 1994  
EPA REGIONAL OFFICE  
BOISE, IDAHO

Post-It* Fax Note - -	7671	Date	7/26	# of pages	1
To	Nickie	From	Kevin		
Org/Dept.	EPA	Co.	DEQ-MIRO		
Phone #		Phone #	769-1422		
Fax #		Fax #			

REFERENCE TO: Potlatch @ St. Maries; river flow

Nickie:

I think this is the last thing you need me to do for this permit: get the 1Q10 and 7Q10 flows for the St. Joe River at St. Maries. Recall that the station experiences lake backwater effects, therefore, a simple stage-discharge relationship cannot be constructed. USGS has only modeled calendar years 1991 and 1992 flows, making the derivation of a 7 day average, 10% return flow (7Q10) and the daily average, 10% return flow (1Q10) subject to variability due to limited data. To estimate the error in the calculation, I calculated 7Q10 and 1Q10 flows for two upstream stations with longer periods of record, and compared the longer record to calculated 1991 and 1992 calendar year 7Q10 and 1Q10 flows for those stations. Using water years 1984 to 1993, the relationships between the 10 year and 2 year calculated flows for the St. Joe River at Calder and the St. Maries River at Santa are:

Station	10 YEARS DATA		1991-1992 DATA		% DIFFERENCE	
	7Q10	1Q10	7Q10	1Q10	7Q10	1Q10
St. Maries @ Santa	56	54	56	53	0.51	1.85
St. Joe @ Calder	404	390	386	369	4.25	5.38

Fortunately, 1991 and 1992 were opposite extremes of "normal" flows in the region so the 2 year flows are not that far off from the 10 year values. The calculated 7Q10 and 1Q10 from Woods' data are 500.2 and 474.1 cfs, respectively. Since the flow in the St. Joe River at St. Maries is more influenced by flow in the St. Joe River upstream, I used the St. Joe error to correct the data based on 1991 and 1992. The corrected values are: 521.45 cfs (7Q10) and 499.63 cfs (1Q10). This results in 701:1 and 671:1 dilution ratios, respectively.

Hope this helps. Maybe the next one will be this easy, too.

Sincerely,

Brian Cochran  
Water Quality Compliance Officer

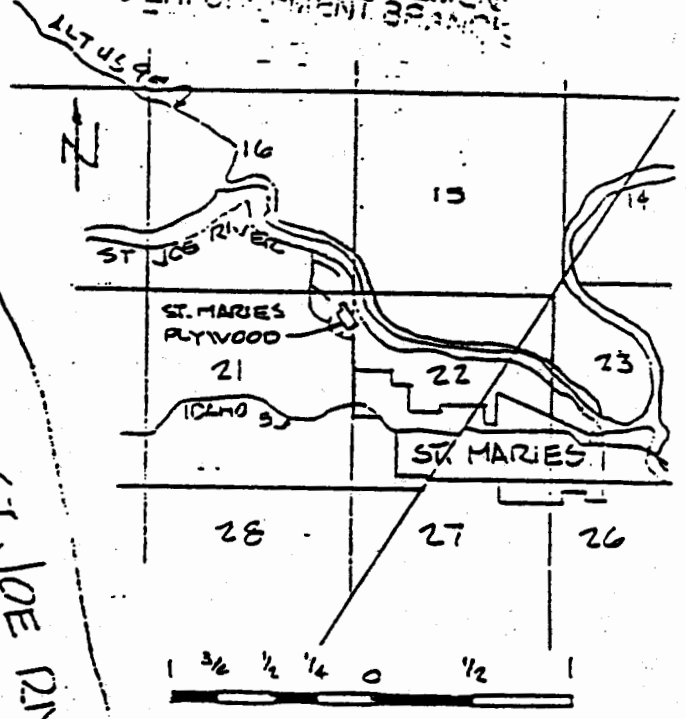
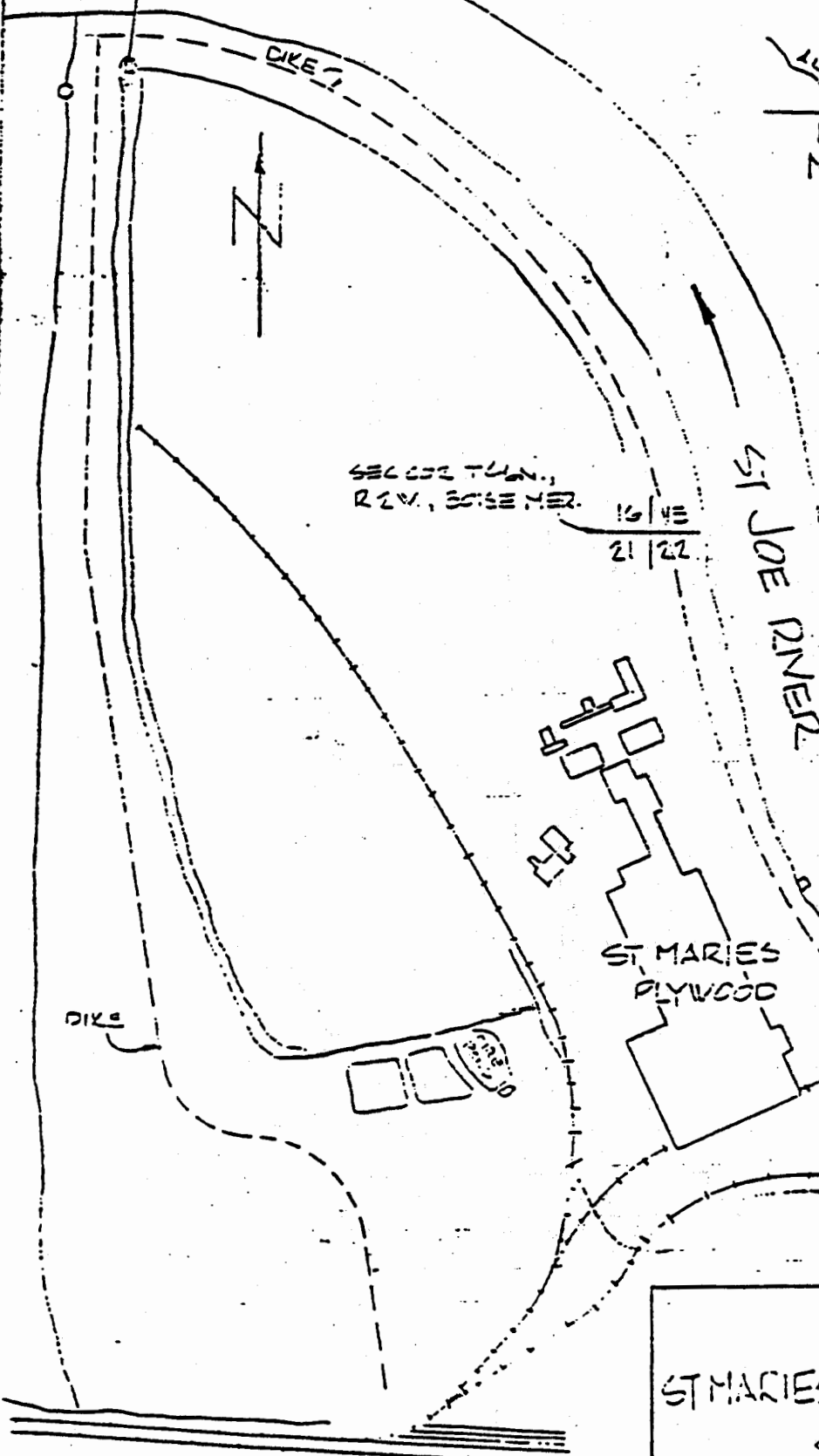
ATTACHMENT 2

ICEIVE

DEC 1 1993

WASTE WATER MANAGEMENT AND ENFORCEMENT BRANCH

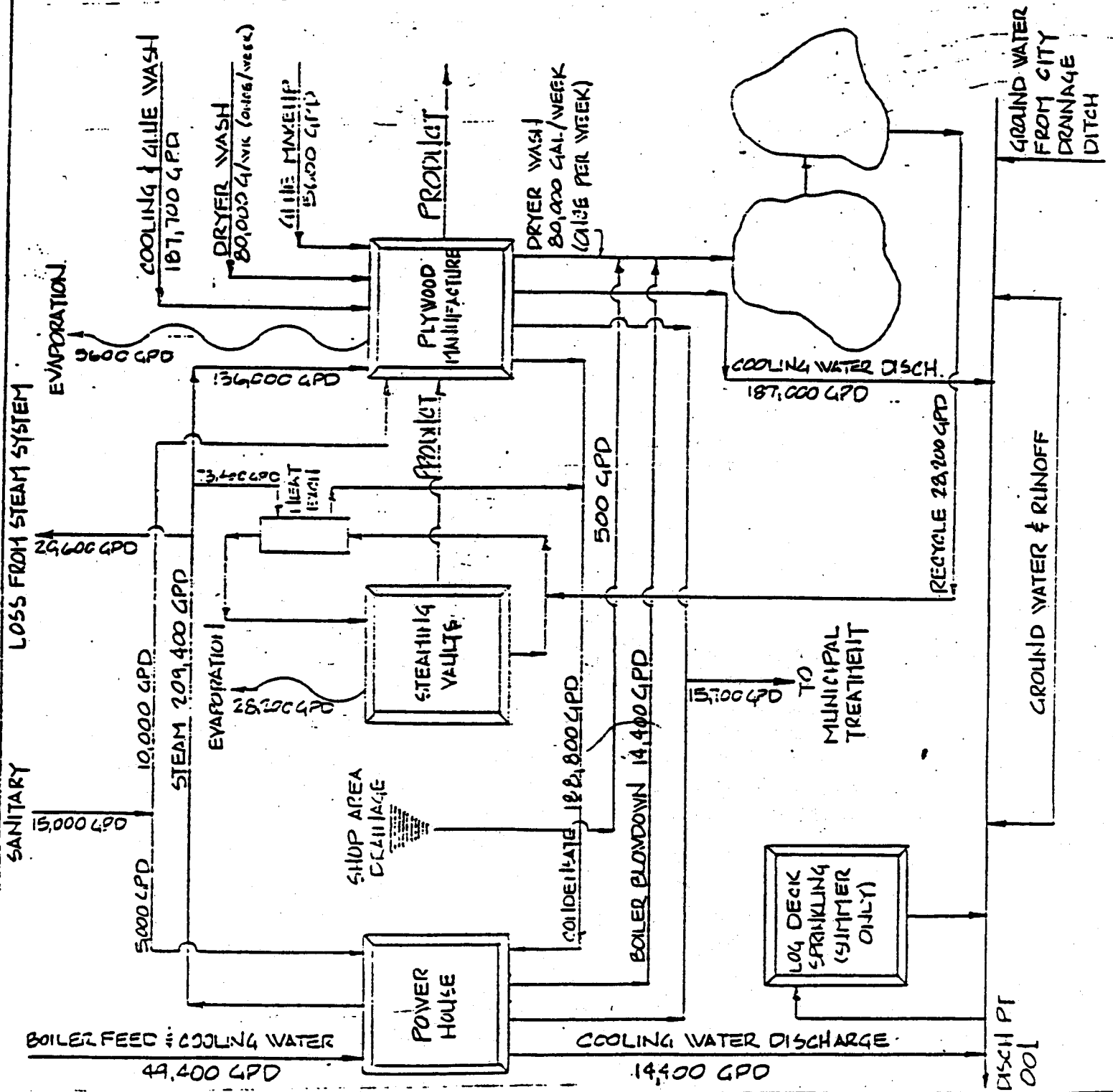
NPOES DISCH PT 001



DISCH PT 001  
 LAT 47° 19' 44"  
 LONG 116° 35' 25"  
 DISCH PT 002  
 LAT 47° 19' 23"  
 LONG 116° 35' 00"

NPOES DISCH FT 007

LOCATION MAP  
 ST. MARIES QUADRANGLE - IDAHO 15 MIN  
 ST. MARIES FLYWOOD  
 ST. MARIES - BENEVAH - IDAHO  
 PAGE 1 of 1



SCHMATIC OF WATER FLOW  
 ST. MARIES PLYWOOD CO.  
 ST. MARIES, BENEVAH, IDAHO  
 SH 101