

STATE WATER PROGRAM



W.W.I.R.P.P. SERIES – NO. 7

KENNEDY-GOLDSBOROUGH
INSTREAM RESOURCES PROTECTION PROGRAM
INCLUDING
PROPOSED ADMINISTRATIVE RULES
WAC 173-514
(WATER RESOURCE INVENTORY AREA 14)

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

DECEMBER 1983

INSTREAM RESOURCES PROTECTION PROGRAM
KENNEDY-GOLDSBOROUGH WATER RESOURCE
INVENTORY AREA (WRIA) 14
INCLUDING
PROPOSED ADMINISTRATIVE RULES
(WAC 173-514)

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SUMMARY

The Kennedy-Goldsborough Water Resource Inventory Area (WRIA 14) comprises the southeast one-third of Mason County and a small portion of the northwest corner of Thurston County (see Figure 1, pg. 5). It consists of a number of independent low elevation streams which flow through the rolling foothills of the area and discharge into southern Puget Sound. Because there are no high elevation ice packs or snow fields to sustain flows, streams depend upon direct precipitation and ground water inflow to maintain flow levels. Stream flows, therefore, reflect seasonal variation in precipitation. In addition to directly contributing to stream flow maintenance, this precipitation also contributes to the storage in lakes, swamps, and ground water aquifers which serve as reservoirs, helping to regulate extreme high and low stream flow conditions.

Surface water in this WRIA is used for a variety of purposes. Shelton Springs, the headwaters of Shelton Creek, are the source of the municipal water supply for the City of Shelton. The creek is an urban stream which flows through much of its length in concrete conduits beneath the town. Goldsborough Creek, which also flows through Shelton, is used by the Simpson Timber Company for industrial water supply. Water in lakes and other creeks of WRIA 14 are also used for domestic supply, lawn and garden irrigation, some agricultural irrigation (Gosnel Cr.) and commercial uses.

Streams and lakes of the area serve as important production grounds for coho, chum, and a limited number of chinook salmon. Steelhead and cutthroat trout also inhabit waters of this WRIA and are important to the recreational fishery of the area. Another major instream use of water is recreation. Lakes of the region are especially utilized for boating, swimming, and sport fishing. In addition to recreational and fisheries resource use, streams and lakes are also important for their scenic and aesthetic qualities as well as wildlife habitat and use.

Peak runoff in these streams occurs during the winter and early, spring months when precipitation is at its highest and natural reservoirs are fully saturated. As precipitation subsides in late spring and early summer, stream flow levels begin to fall off so that by August streams have usually reached their lowest levels. Stream flows then increase as precipitation increases in the fall.

In order to protect flows for instream uses the Washington State Department of Ecology (WDOE) proposes to establish minimum flows on the following creeks: Shumocher Creek, Sherwood Creek, Deer Creek, Cranberry Creek, Johns Creek, Goldsborough Creek, Mill Creek, Skookum Creek, Kennedy Creek, and Perry Creek. In addition, a closure to further surface water appropriations for all consumptive uses from May 1 to October 31 each year is proposed for Jarrell Creek, Jones Creek, Campbell Creek, Alderbrook Creek, Elson Creek, Fawn Lake Outlet, Goldsborough Creek, Little Creek, Melaney Creek, Perry Creek, Schneider Creek, Shelton Creek, Skookum Creek, Uncle John Creek, and Twahnoh Creek. A closure to further appropriations of surface water for all consumptive uses is also proposed for Kennedy Creek (May 1 to November 15), Sherwood Creek (September 16-November 15), Deer Creek

(September 16 to November 15), Cranberry Creek (September 16 to November 15), and Johns Creek (September 16, to November 15). The minimum instream flows and closures would apply to all tributaries of these streams including lakes. Existing water rights, nonconsumptive uses, domestic use (which includes up to 1/2 acre of land and garden irrigation), and stockwatering (except that related to feedlots) are proposed to be exempt from the instream flow and stream closure provisions of this program. Where the cumulative impacts of numerous single domestic diversions would significantly affect the quantity of water available for instream use, then only in-house domestic use will be exempt if no alternative source is available.

EXISTING WATER RIGHTS WILL NOT BE AFFECTED BY THIS PROGRAM.

PROGRAM OVERVIEW

In June 1979, a Western Washington Instream Resource Protection Program (WWIRPP) document, including a final environmental impact statement, was distributed to the public and governmental agencies. (Copies are available upon request from the Department of Ecology, Olympia). In this document, the Washington State Department of Ecology (WDOE) proposed a plan for developing and adopting instream flows for 24 Western Washington Water Resource Inventory Areas (WRIAs) and two Eastern Washington WRIAs, the Wind-White Salmon Basin (WRIA 29) and the Klickitat Basin (WRIA 30). Another Eastern Washington WRIA, the Wenatchee River Basin (WRIA 45), was added to the program in 1981.

The methods and procedures used in the Kennedy-Goldsborough program are those outlined in the Western Washington Instream Resource Protection Program report. The anticipated environmental impacts of the program are those discussed in the WWIRPP final environmental impact statement. Therefore, no basin specific environmental impact statement has been prepared regarding Kennedy-Goldsborough program.

In the Kennedy-Goldsborough Instream Resources Protection Program, the Washington State Department of Ecology (WDOE) proposes to establish specific minimum instream flow levels and seasonal stream closures to protect the instream resources of fish, wildlife, water quality, navigation, recreation, scenic, aesthetic, and other environmental values.

AUTHORITY

The Water Resources Act of 1971 provides that perennial streams and rivers shall be retained with base flows necessary to provide for preservation of wildlife, fish, scenic, aesthetic, and other environmental and navigational values [RCW 90.54.020(3)(a), 1971]. The state may also establish minimum water flows or levels for streams, lakes, or other public waters for the purposes of protecting fish, game, birds, or other wildlife resources, recreational and aesthetic values, and water quality under the Minimum Water Flows and Levels Act [RCW 90.22.010, 1969]. Under provisions of the State Fisheries Code, the Department of Ecology may deny or otherwise limit water right permits if, in the opinion of the director of Game or director of Fisheries, such permit might adversely affect the ability of the stream to support game or food fish populations [RCW 75.20.050, 1949]. The Kennedy-Goldsborough program is authorized by Chapter 90.54 RCW and supported by chapters 90.22 and 75.20 RCW.

The base or minimum flows proposed in this program are referred to by the generic term "instream flows."

PUBLIC PARTICIPATION

Distribution of this draft document initiates public involvement in the Instream Resources Protection Program for the Kennedy-Goldsborough Water Resource Inventory Area (WRIA) 14. All interested individuals, private groups, and public agencies are encouraged to comment on any aspect of the recommended measures for streams and lakes in the Kennedy-Goldsborough WRIA. A series of coordination meetings have been held with local, county, state, and federal

agencies as well as interested private organizations and individuals. A public meeting was held in Shelton, December 1, 1981.

Public comments will be accepted during one public hearing scheduled as follows:

<u>County</u>	<u>Place</u>	<u>Time</u>	<u>Date</u>
Mason County	Shelton Middle School 9th & Franklin Shelton, WA	7:00 p.m.	Thursday Oct. 27, 1983

Written comments and oral testimony will be fully considered in preparation of the final proposed administrative rules if received by the department by November 17, 1983. Formal adoption of the proposed rules will be considered in an adoption proceeding at the Department of Ecology, Air and Land offices conference room, Rowsix, 4224 Sixth Avenue S.E., Lacey, Washington, on Tuesday, January 17, 1984 at 2:00 p.m.

BASIN DESCRIPTION

GEOGRAPHY

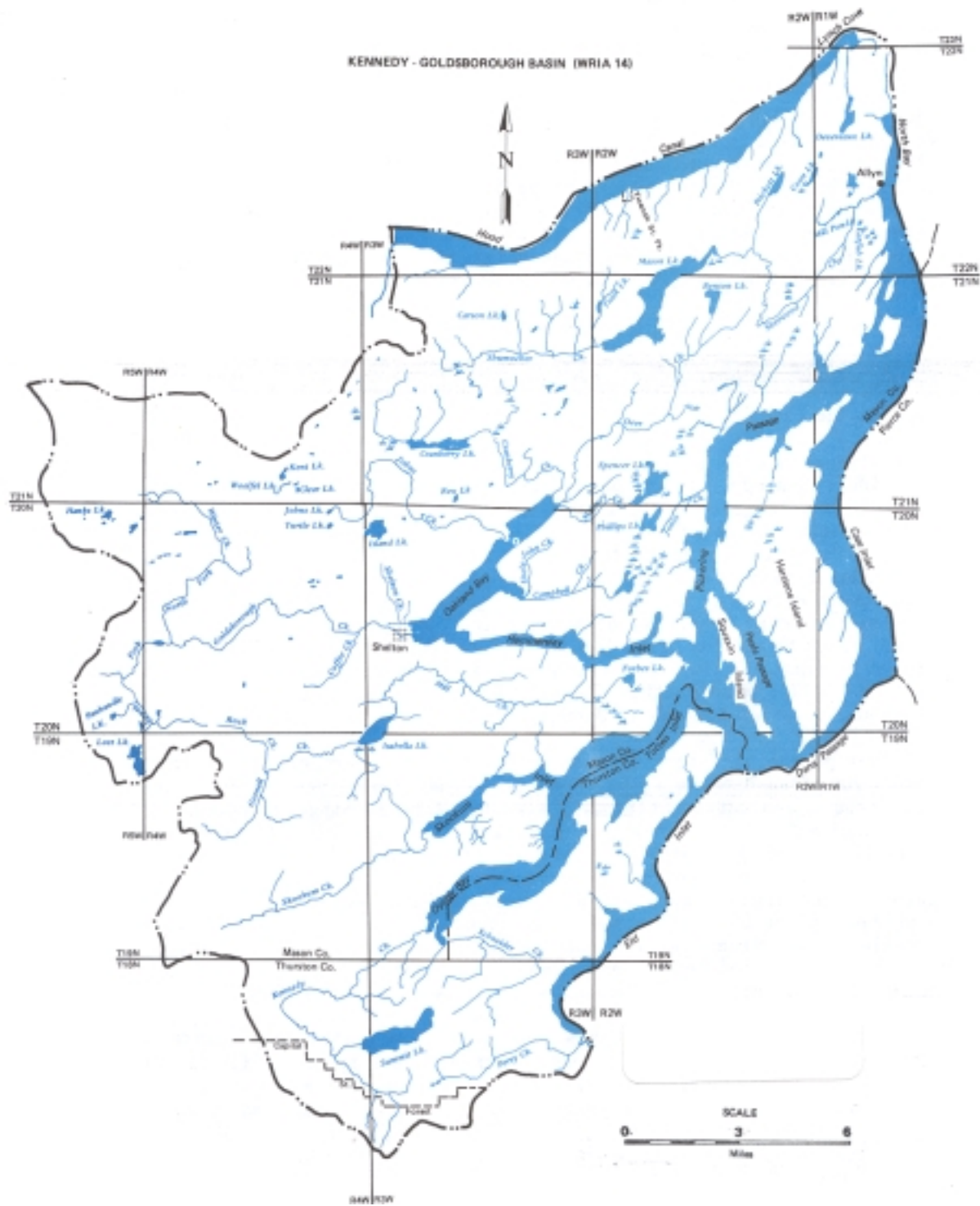
The Kennedy-Goldsborough Water Resource Inventory Area (WRIA 14) comprises the southeast one-third of Mason County and a small portion of the northwest corner of Thurston County (Fig. 1, pg. 5). The basin covers a total land area of 360 square miles. It is bounded on the north by Hood Canal and the Skokomish River Basin, on the east by the waterways of Puget Sound, (Case Inlet, Dana Passage, and Eld Inlet) and on the south and west by the Chehalis River basin.

Topography in the Kennedy-Goldsborough WRIA ranges from foothills in the southwest to the rolling lowlands surrounding the marine waterways in the northeast. Precipitation averages from 60 to 80 inches per year, with the northwest portion of the area receiving higher amounts and the southeast portion receiving slightly less than the average.

All of the streams in this basin are typical lowland types, with their headwaters originating from natural springs, swampy beaver ponds, or small lakes in the foothills. Most streams flow through ravines and gullies that in most cases flatten out into broad bottom lowlands along the lower reaches.

ECONOMY AND LAND USE

Land use activities that affect water resources in WRIA 14 include forestry, agriculture, manufacturing and commercial activities, and urban development. Logging, manufacture of forest products, and farming of Christmas trees forms the economic base of the region. Both private and government forests are harvested on a sustained yield basis that should maintain the industry at approximately its present level. Simpson Timber Company, the largest employer in WRIA 14, expanded in 1979, opening up a new saw mill near the Dayton sorting yard. The company began to shift its emphasis from upper elevation logging operations in the Olympic



Mountains to cutting second and third growth trees in the lowlands around Shelton in 1980. A light industrial complex is located at Sanderson Field, owned by the Port of Shelton. Sanderson Field is the only public airport in Mason County.

POPULATION

Population in WRIA 14 was approximately 16,000 in 1980 and is projected to increase to almost 19,000 by 1985. Shelton is the only incorporated city in the basin and includes one-third of the population of Mason County. Most of the remainder of the basin's population is concentrated around lakes and along the waterfront areas of Hood Canal and the other inlets of Puget Sound. Unincorporated communities include Union, Allyn, Grapeview, and Kamilche. The Squaxin Island Indian Reservation occupies Squaxin Island, however, the tribal center is at Kamilche.

WATER RESOURCES

SURFACE WATER

Streams and Lakes

Four streams are located in the southernmost portion of WRIA 14: Perry, Schneider, Kennedy, and Skookum creeks (see Figure 1, pg. 5). Kennedy Creek is the largest stream in this group with its headwaters originating on the north slopes of the Black Hills. Four tributary streams join Kennedy Creek in its upper three miles, with the outlet of Summit Lake providing a major tributary source. Kennedy Creek drains an area of 20.3 square miles and is 9.6 miles in length. A series of falls, cascades, and log jams drop in excess of 60 feet in 300 yards of narrow canyon to form a block to migrating anadromous fish approximately 2.5 miles upstream from the mouth. During the period of gaged record from February 1960 to September 1971, mean monthly flows in Kennedy Creek ranged from 3 cfs in September to about 200 cfs in January

All four perennial stream systems in the southern part of the basin support runs of anadromous fish, especially chum salmon, coho salmon, steelhead trout, and cutthroat trout. Kennedy Creek is especially important for chum production which has been enhanced in the past by the Department of Fisheries (WDF) through an egg box operation on the creek. Chum salmon are also found on the other three creeks, but in smaller numbers. Cutthroat trout inhabit the waters, too, as well as steelhead trout which have been planted in the creeks in recent years. Skookum Creek is an excellent coho producer with lots of accessible area for spawning and rearing. Coho produce in good numbers in Kennedy Creek and are also found in the other creeks of this section, but to a lesser degree.

Currently, Schneider and Skookum creeks are administratively closed to further consumptive appropriations. Kennedy Creek has a low flow limitation and a court decreed lake level has been set on Summit Lake; Perry Creek is currently free of any surface water source limitations.

Sherwood Creek originates in foothills approximately eight miles north of Shelton in the northernmost portion of WRIA 14. Schumocher Creek and its tributaries (including Trask Lake and large wetland areas) constitute the upper reaches of the stream system contributing inflow to Mason Lake. Sherwood Creek is formed from the outlet flows of Mason Lake and Prickett Lake. The surface area of Mason Lake, the largest lake in WRIA 14, is 977 acres. The lake is about four miles long and averages about one-half mile wide. Prickett Lake contains 73 surface acres and is approximately three-quarters of a mile in length. A small mill pond is located near the mouth of Sherwood Creek. This stream system is the largest in the Kennedy-Goldsborough Basin, containing 18.3 miles of streams and tributaries with an average summer flow of 10 to 20 cfs. Sherwood Creek discharges into the extreme north end of Case Inlet at North Bay near the community of Allyn. Both coho and chum salmon utilize this stream. The WDF operates egg box facilities for salmon enhancement on the creek. All of the streams and lakes in the Sherwood Creek system are currently free of surface water limitations.

In the western and central portion of the Kennedy-Goldsborough WRIA, several independent salmon-producing streams flow into Oakland Bay and Hammersley Inlet.

The headwaters of the southernmost stream in this group originates in the timbered foothills southeast of Shelton. Gosnell Creek flows in a north and easterly direction for 3.9 miles to discharge into Lake Isabella. Rock Creek is a major tributary. The outlet from Lake Isabella continues as Mill Creek which flows in a northerly direction through the southern outskirts of the town of Shelton, then turns easterly for several miles to discharge into Hammersley Inlet. The Mill Creek drainage contains 16.0 linear miles of stream, and is accessible to anadromous fish throughout its entire length

Coho and chum salmon, as well as steelhead and cutthroat trout are found in this drainage. In addition, the Washington State Department of Fisheries (WDF) has planted chinook salmon in Mill Creek. Recently, the WDF has been gathering information on coho runs in the stream by capturing and tagging outmigrating young coho salmon. Relatively high temperatures in the creek, which may be attributable to shallow Lake Isabella, may be affecting coho production.

The upper reach of the stream, Gosnell Creek and tributaries, are currently under low flow limitations. Isabella Lake and the lower reach of the stream, Mill Creek and tributaries (including Forbes Lake, and excepting one small unnamed stream) are currently free of any surface water limitations.

Goldsborough Creek flows eastward to enter Oakland Bay in the heart of the town of Shelton. The headwaters of the South Fork originate from springs, surface drainage, and small lakes about three miles south of the community of Dayton, then flows west and north to join the North Fork. The North Fork is spring-fed and originates about two miles northeast of Dayton and flows southwesterly to join the South Fork below Trap Lake. The forks then form the main stem which flows approximately 9 miles to its mouth at Shelton. Winter Creek, 3.8 miles in length, is a

tributary joining the North Fork about one mile north of Dayton. Coffee Creek is a spring-fed drainage with headwaters forming above beaver dams approximately two and one-half miles up the Shelton Valley. The Goldsborough Creek drainage encompasses 14 miles of streams and is an important anadromous fish stream supporting steelhead trout and coho and chum salmon. WDF has planted chinook in Goldsborough Creek and enhanced the coho run by planting smolts in the past few years. USGS gage readings recorded at River Mile 5.5 between 1960 and 1971 show a range of mean monthly flows of 20 cfs in September to 395 cfs in February for that period.

A diversion dam with fish passage facilities is located in the lower section of Goldsborough Creek, at River Mile 2.3, where water is diverted through a two-mile pipeline to a steam plant in Shelton operated by Simpson Timber Company. The pipeline has the capacity to carry up to 40 cubic feet/second, however, current diversion has averaged about 17 cubic feet per second with a peak use of 27 cfs in recent years. This water is used for cooling purposes at the steam plant and for fire protection. The extensive Simpson Timber Company sawmill complex, including the steam plant, is located at the mouth of Goldsborough Creek. Gravel mining, sorting, and washing operations are conducted by the Graystone Company near River Mile 2.0. Goldsborough Creek and all tributaries, except Coffee Creek, are currently closed to additional consumptive appropriations.

Shelton Creek also flows through the City of Shelton. Portions of this unique urban stream are conveyed underground via a concrete conduit. The mainstem above R.M. 0.4 is dry throughout much of the year, while an unnamed tributary (City Springs) provides year round flows to the downstream areas. Shelton Springs supplies municipal water for the City of Shelton, and flow is, therefore, heavily regulated. Shelton possesses a water right for 5 cubic feet per second from the springs. During flood events, excess water from Shelton Creek is routed by culvert to nearby Goldsborough Creek in order to prevent flooding in downtown Shelton. Shelton Creek produces considerable numbers of coho and chum salmon considering the extensive alteration it has undergone. Though channelized, the creek is aesthetically pleasing as it flows through Shelton. Shelton has no current plans for developing additional supplies from Shelton Creek. It is currently free from any surface water source limitations.

Johns Creek is approximately 8.3 miles in length and drains generally eastward from its headwaters at Johns Lake to discharge into central Oakland Bay at Bayview. It is utilized by coho, which are enhanced through a Department of Fisheries (WDF) hatchery on the creek, and chum salmon. Near their headwaters, Johns Creek and Cranberry Creek flow through a swampy section with no perceptible divide separating them. Johns Creek is currently under a low flow limitation.

Cranberry Creek generally flows in an easterly direction for 9.7 miles and meets Oakland Bay in its northern extremity. Cranberry Lake at River Mile 4.7 is approximately one-half mile long and contains 170 surface acres with an additional 96 acres of marsh and springs surrounding it. Three intermittent headwater streams flow into the lake from smaller bog lakes. Cranberry Creek flows

easterly for one-half mile to enter Lake Limerick, a man-made lake roughly the same size as Cranberry Lake. A 15-foot high dam was constructed at River Mile 3.5 in Cranberry Creek to impound waters of that system for recreational purposes. Fish passage facilities are incorporated into the dam at the outlet of Lake Limerick. The stream and lake support significant numbers of coho salmon. Chum salmon are found in the creek but migrate only as far up as the base of the dam. Their numbers are enhanced by a WDF egg box facility at the dam outlet. Chinook salmon have also been documented in the stream in recent years. In addition, the stream supports steelhead and cutthroat trout according to the Department of Game. Below the lake the stream has a moderate gradient in the lower three miles and supports an average summer flow of 15 to 20 cfs. Cranberry Creek and Cranberry Lake are currently free of surface water source limitations.

Deer Creek, a stream similar in size and flow to Cranberry Creek, originates in the northern portion of WRIA 14 from natural springs and the outflow of Benson Lake, then flows southwest for 8.5 miles to discharge into the extreme northeast end of Oakland Bay. The creek is used by chum and coho salmon as well as steelhead and cutthroat trout. Chinook salmon have also been documented in the stream. The Deer Creek basin is largely undeveloped and is currently free of surface water source limitations.

Malaney, Uncle John, and Campbell creeks drain the uplands on the eastern edge of Oakland Bay. Campbell Creek (4.5 miles in length) is the largest of the three streams and originates from a large swampy area formed from the overflow of Phillips and Big Twin lakes. Malaney Creek originates as the outflow of Spencer Lake. Coho and chum salmon, as well as steelhead and cutthroat trout, inhabit the waters of these creeks. Residential and recreational development has occurred at the three lakes. Big Twin Lake is formed by a dam on Campbell Creek. All three streams and associated lakes are currently free of surface water source limitations.

Runoff Characteristics

For the most part, stream flow in this WRIA is dependent on precipitation which occurs in the winter and spring months. This precipitation supplies water to the small lakes, beaver ponds, surface drainages, and springs that form the headwaters of most of the streams. Annual rainfall ranges from 60-80 inches and increases with elevation. Peak runoff occurs from November to March when precipitation is heaviest. Low flows generally occur from July to September. (See Figures, Appendix B). The numerous lakes and wetlands act as temporary storage reservoirs, moderating extreme high and low flow conditions and particularly help maintain base flows during the summer low flow period.

GROUND WATER^{1/}

Except for the volcanic rocks that form the basic structure of the Black Hills in, the southwestern part of WRIA 14, the Kennedy-Goldsborough Basin is underlain by a thick sequence of

^{1/} Ground water information is from Garling-Molenaar, 1965.

unconsolidated deposits of the Pleistocene Age. The deposits were derived from at least three continental glaciations including one or more mountain glaciations and two nonglacial intervals. These stratified units include from oldest to youngest: Salmon Springs Drift and older undifferentiated sediments, Kitsap Formation, Skokomish Gravel, and Vashon Drift.

Water levels in wells throughout WRIA 14 indicate that the water table is within 50 feet of land surface in most areas. Where ground water occurs in perched or semiperched conditions, higher water tables may exist locally above the main water table. Under such conditions, the depths to water beneath some upland areas are relatively shallow.

In the Mill Creek Valley south of Shelton, a Rayonier test well was drilled to a depth of 790 feet (sea level is at 110 feet) into sand and gravel of undetermined age. According to the drillers record, the only water bearing materials were penetrated between 26 and 36 feet above sea level. The pump test indicated a capacity of 225 gpm. The ground water supplying most of the water needs in the area is obtained principally from the coarser phases of Salmon Springs Drift, Skokomish Gravel, and Vashon Drift. The older undifferentiated sedimentary deposits locally provide large yields to deep industrial and municipal wells. Several test wells drilled by Rayonier, Inc. in the outwash plain north of Shelton are each reported to be capable of producing 2,500 gpm. One of these wells taps several aquifers lying between 87 feet above and 245 feet below sea level. Two other wells tap aquifers ranging from 190 feet above sea level to 213 feet below.

Most ground water discharge in WRIA 14 occurs directly into streams, lakes, and surrounding marine waters, with minor amounts discharged to the surface as springs. During the late summer dry periods, the flow of all streams in the Kennedy-Goldsborough WRIA is largely of ground water origin. Because shallow groundwater aquifers provide an important component of streamflow during the low flow periods of the year, it is important to protect shallow aquifers close to and in direct hydraulic continuity with streams.

Two ground water studies, Water Supply Bulletins No. 18 (Garling-Molenaar, 1965) and No. 29 (Molenaar-Noble, 1970) concluded that because of the absence of large surface water supplies in the populated portions of Mason County, ground water is the most feasible source of future water supply. It was further concluded that in most areas ground water of good quality should be available to meet water requirements up to and beyond 1990.

WATER QUALITY

Water quality in the upper reaches of the streams of WRIA 14 is generally good since the streams originate in essentially unsettled, heavily timbered country. The lower reaches of streams flowing through urban or otherwise disturbed lands are subject to siltation and high turbidity resulting from storm runoff. Siltation of streams can be accentuated temporarily following road building and logging operations that remove the forest cover.

The rivers and streams in the area are increasingly susceptible to pollution from development and recreational use in the watersheds. In addition, WDF is concerned about the high temperatures of Mill Creek. The shellfish production in intertidal zones is especially sensitive to water pollutants. The potential for ground water pollution depends upon waste disposal practices, the depth of aquifers and their protection from surface contamination by an overlying impervious unit. Water pollution problems may result from septic tanks, industrial wastes, storm runoff, livestock, logging, and land development. One of the important objectives in establishing minimum instream flows on a stream is to protect water quality.

WATER USE

INSTREAM USES

Fisheries

Chinook, coho, and chum salmon utilize the streams of the Kennedy-Goldsborough WRIA (see Table 1, pg. 12 for timing of freshwater life phases). In an average year, over 70,000 adult salmon return to spawn in the basin's small streams. This natural production is enhanced through release of outplants from hatchery and egg box operations in the basin. The Washington Department of Fisheries (WDF) maintains a hatchery facility on Johns Creek and operates egg box facilities on Cranberry, Sherwood, and Twanoh creeks. The Squaxin Island Indian Tribe operates a hatchery on Elson Creek which flows into Skookum Inlet and releases substantial numbers of coho from net pens located at Squaxin Island.

Chinook Salmon

Chinook spawning occurs consistently only in Deer, Goldsborough, and Sherwood creeks where streamflow is high enough to allow passage. The only hatchery releases of chinook occur at the Squaxin Island Indian Tribe's Elson Creek hatchery. The hatchery produced a total of 300,000 young chinook salmonids. The small runs which utilize these streams are severely limited by low flows during the normal adult migration and spawning periods. Sporadic use of the other streams in the basin occurs, but normal streamflows during the fall are inadequate to support large chinook runs. Most spawning activity takes place in the lower stream sections where larger sized gravel is available. Spawning migration generally begins from mid-September to early October and is usually completed by the first week of November. Spawning commences in mid-October and is finished by mid-November. Many of the streams in the basin could support chinook runs or larger chinook runs if low natural autumn flows were not limiting.

The Department of Fisheries natural escapement goal for chinook within the basin is about 150 fish. This natural escapement can be expected to contribute about 500 chinook to the Washington sport and commercial catch.

Table 1. TIMING OF ANADROMOUS FISH FRESH-WATER LIFE PHASES IN THE SHELTON (SOUTH PUGET SOUND) BASIN WR14.

SPECIES	FRESH-WATER LIFE PHASE	MONTH												
		J	F	M	A	M	J	J	A	S	O	N	D	
Summer-fall Chinook	Upstream migration													
	Spawning													
	Intragravel develop.													
	Juvenile rearing													
	Juv. out migration													
Coho	Upstream migration													
	Spawning													
	Intragravel develop.													
	Juvenile rearing													
	Juv. out migration													
Chum Early run	Upstream migration													
	Spawning													
	Intragravel develop.													
	Juvenile rearing													
	Juv. out migration													
Chum Normal run	Upstream migration													
	Spawning													
	Intragravel develop.													
	Juvenile rearing													
	Juv. out migration													
Steelhead trout	Upstream migration													
	Spawning													
	Intragravel develop.													
	Juvenile rearing													
	Juv. out migration													
Cutthroat trout	Upstream migration													
	Spawning													
	Intragravel develop.													
	Juvenile rearing													
	Juv. out migration													

Dashed lines on the table mean fish may be found in the stream during this time but not in peak numbers.

Coho Salmon

Coho salmon utilize all accessible streams and tributaries of the basin. Most spawning occurs in the upper portions of streams while rearing occurs throughout the accessible lengths. The Department of Fisheries natural escapement goal for coho in the basin is about 6,800 fish per year. This level of escapement can be expected to contribute about 23,000 fish to the Washington catch each year. Additional contribution occurs from WDF stream plants of hatchery fish and the Squaxin Island Tribe's Seafarm which release about 2 million fish per year total (1981 plants).

The main limiting factor to coho production is the summer-fall low flow (July through October). Because coho salmon rear in fresh water for one year prior to out-migration, the number of out-migrants and thus adults fluctuates with amounts of rearing area available as determined by low stream flows. According to WDF, reduction of stream flow during the low flow period can be expected to result in a net reduction in harvestable numbers of coho salmon.

Chum Salmon

Two distinct runs of chum salmon utilize this basin. Early-timed chum runs enter the basin drainages beginning in early September and spawn about the first week of October until mid-November. Normal-timed chum runs begin entering the streams in early November and spawn from mid-November through mid-January. The Department of Fisheries natural escapement goal during even years is about 82,000 and during odd years about 50,000. On the average, for each chum in the escapement there is a corresponding one in the catch (1:1 catch to escapement ratio). Thus the chum catch in even years is about 82,000 and in odd years is 50,000. Natural production of chum salmon is supplemented by WDF egg box operations on Cranberry, Little Creek, and until recently, on Kennedy Creek which produce about 6 million fry yearly. In addition, the Squaxin Island Tribe releases up to 2.5 million late run chum from its Elson Creek facility and has been working in Skookum Creek (removing log jams and replacing gravel) to enhance chum runs there.

Shellfish

Oyster and clam production is very significant in the inlets of the Kennedy-Goldsborough basin. For the entire basin, average production of oysters has totaled over 1,300,000 pounds per year while average clam production totaled about 1,100,000 pounds per year.

Oyster and clam production is dependent on inlet water quality which is directly related to inlet flushing rates. A substantial portion of the flushing of the inlets is due to stream flow from the various tributaries. Thus, stream flows directly affect and are essential for current oyster and clam production.

Game Fish and Wildlife Utilization

According to the Washington State Department of Game (WDG), most of the perennial streams in the Kennedy-Goldsborough Water Resource Inventory Area are utilized by steelhead trout, and every major accessible stream system supports cutthroat trout. Many lakes in the WRIA

support excellent recreational fisheries for resident game fish, including kokanee and anadromous trout. The estuaries and forested areas of the region provide important habitat for a variety of plant and wildlife species.

Anadromous Trout

The two species of anadromous trout found in WRIA 14 include sea run cutthroat and winter run steelhead trout. Winter run steelhead migrate upstream from November to May and spawn from December to mid-June. After hatching, juveniles rear in the stream for one year and migrate to saltwater during March through June of the following year (see Table 1, pg. 12).

The sport catch in Kennedy Creek averaged 3.7 steelhead per winter with a range of 0 to 8 fish per year until a fish stocking program was initiated in the early 1972. From 1975 through 1979, sport catch averaged 79 fish per year with a range of 45 to 140 fish per year. This enhancement has increased the Kennedy Creek steelhead catch by 20 times beginning with the 1975-76 season. Winter steelhead catch in Goldsborough Creek has averaged 99 steelhead per winter during those 14 years, with catch ranging from 20 to 436 fish.

WDG has assessed the relationship between stream flow and steelhead production on Kennedy Creek and Goldsborough Creek. The sport catch (and presumably production) of adult steelhead was found to be significantly correlated to the level of flow in the stream during the fry and juvenile life stages of steelhead. WDG believes that the higher the streamflow during the low flow period, the greater the resulting production of steelhead trout.

Cutthroat trout begin migrating into fresh water in mid-June and spawn from mid-December to April. Juveniles rear in streams of the WRIA for one year and migrate out to saltwater from March through June (see Table 1, pg. 12). No data is available to relate cutthroat production to flows in the Kennedy-Goldsborough WRIA. However, cutthroat trout, which are abundant in most streams of the basin, are generally more sensitive to flows than are steelhead according to WDG biologists.

Resident Fish

Resident fish are found throughout the Kennedy-Goldsborough region and are a very important recreational resource. Resident rainbow and cutthroat trout inhabit the waters of most all lakes and streams. The Game Department maintains these fish populations through their planting program. Other game fish found in the area includes bass, crappie, perch, and kokanee. Bass fishing is especially popular in Lake Isabella. Kokanee are found primarily in Summit Lake. Nongame fish such as suckers, sculpin, sticklebacks, shiners, and dace are abundant in lowland waters.

Wildlife

Several types of wildlife habitat are found in the Kennedy-Goldsborough region including dense coniferous forests, young to near native second growth forest lands, swampy bogs, and salt water estuaries. These diverse environments provide ideal conditions for numerous species of flora and fauna.

An abundance of large and small mammals, as well as several species of birds, inhabit the forested areas. Deer, bear, and Roosevelt elk roam the thick forests and logged lands. Young second growth areas provide excellent browse for deer and elk. Smaller mammals, such as red fox, opossum, skunk, weasel, chipmunk, squirrel, and several species of small rodents live and forage on the forest floor. Game birds associated with this environment include pigeon, grouse, and quail. In addition, a number of nongame birds such as chickadee, woodpecker, other small birds, goshawk, and Coopers hawk live in the forest.

Mammals associated with swamps and salt water marshes include beaver, muskrat, river otter, and mink. Estuaries are especially important habitat for waterfowl. Numerous species of ducks, shorebirds, and other waterfowl inhabit these areas.

Of special note is the Kennedy Creek estuary which supports a large number of these bird species and is a popular area for duck hunting. Many other small estuaries in the basin are also relatively undisturbed and highly productive. A great blue heron nesting colony is located in the basin. Great blue herons also depend upon fish for a major part of their diet and can often be sighted fishing in the basin's estuaries.

Of special concern is the bald eagle, a threatened species in Washington, which occurs in the Kennedy-Goldsborough Basin throughout the year. Sightings have been recorded in all parts of the basin. Bald eagles in Western Washington depend, to a large degree, upon salmon produced in the rivers, and thus are dependent upon the protection of salmon habitat afforded by instream flow protection measures.

According to a recent analysis by the Washington Natural Heritage Program, ospreys are rarer than bald eagles in Western Washington. There is at least one recorded osprey nest in the Kennedy-Goldsborough Basin. Ospreys are almost exclusively dependent upon fish for food, and are thus also indirectly dependent upon adequate instream flows.

Insects of special concern which occur in the basin include two butterflies, the hoary elfin (*Incisalis polios*) and the American painted lady (*Cynthia virginensis*) (Pyle, 1976). Water dependent plant species of special concern that are not presently endangered or threatened but will be jeopardized if current land use practices continue in the basin include:

- Puccinellia nutkaensis
- Agrostis alba
- Lindernia anagallidea
- Aster subspicatus
- Montia diffusa
- Carex lyngbyei
- Potentilla pacifica
- Triglochin maritimum
- Scirpus americanus
- Salicornia virginica
- Distichlis spicata
- Jaumea carnosa

Recreation

Boating, sport fishing, and swimming are common on all lakes and streams large enough to accommodate these activities. Mason County experienced a rapid rise in the development of recreation property during the 1960s, and the trend has continued. In WRIA 14, much of the population is seasonal and concentrated along waterways. Summer homes are numerous around Summit Lake on Kennedy Creek, Lake Isabella on Gosnell Creek, Forbes Lake on Mill Creek, Phillips Lake on Campbell Creek, and Mason Lake and Trask Lake on Sherwood Creek. Lake Limerick on Cranberry Creek is an artificial lake created for recreational purposes by constructing a dam across the stream. During periods of low precipitation, riparian residents of some of the lakes in the WRIA block stream outlets to prevent or slow the loss of water from lakes to outflow streams. When this happens, the outlet streams are subjected to very low flows, increased water temperatures and other water quality problems, and loss of fish habitat.

Aesthetic & Scenic Values

The Kennedy-Goldsborough WRIA is a very scenic region. The numerous lowland streams and lakes which are typical of the region are lined with brush and a canopy of moss-covered trees that provide a very peaceful setting. In addition, the myriad of fjord-like saltwater inlets located along the eastern border of the region provide an aesthetic quality which is uncommon to the rest of the Puget Sound.

Navigation

Streams of the Kennedy-Goldsborough are generally too small for navigation by boat, however, many lakes of the area are of a size that boating activities have become prominent.

CONSUMPTIVE USES

Domestic and Municipal Water Supply

The City of Shelton has the only municipal water supply system in WRIA 14. Shelton has a water right for 5 cfs on Shelton Springs, a tributary of Shelton Creek. This source is primarily used in the summer. During the winter months, the city is supplied by two wells. These wells are over 700 feet deep and bottom in undifferentiated pre-Vashon deposits. The yield capacity of each of these two wells is 1,500 gallons per minute (gpm) (3.34 cubic feet per second (cfs)). A third well was drilled to a depth of 750 feet but yields have been inadequate for municipal supply. The city intends to do additional work on this well to increase its yield.

The Department of Social and Health Services Water Facilities Inventory lists only four small community water supply systems in the Kennedy-Goldsborough WRIA that divert water from streams for water supply. The annual average use by each of these was less than .1 cubic feet per second.

Most wells within WRIA 14 are used for single-unit domestic supplies. Most are 6-inch drilled wells fitted with jet or submersible pumps that generally yield between 6 and 10 gallons per minute. Depths of most wells in the area range from 50 to 75 feet. (Molenaar-Noble, 1970).

Mason County's Comprehensive Water and Sewer Plan, 1971 concluded that ground water is the most feasible future source of water supply in most areas due to the absence of large surface supplies in the populated portions of the county and that, with few exceptions, ground water will be adequate to meet the water requirements until 1990.

The Instream Resources Protection Program is not expected to have a major impact upon potential sources of groundwater supply. Future applications for ground water withdrawals from shallow aquifers will be investigated to determine if significant hydraulic continuity exists between the proposed well and any streams that might be adversely impacted by the withdrawal. If significant hydraulic continuity is determined, the application could either be denied or the permit issued with the same restrictions as the surface water source.

Industrial Water Use

The United States Geological Survey (USGS) water report on "Municipal, Industrial, and Irrigation Water Uses, 1975," indicates a total surface water use of 3.6 billion gallons per year (an average of 15.3 cubic feet per second) by industries in WRIA 14. Simpson Timber Company's water rights on Goldsborough Creek total 55.5 cubic feet per second but not all of this quantity is currently used. Simpson estimates that current average use is about 17 cfs and peak use about 27 cfs. This water is used for condenser cooling and replacement water at the company's woodwaste fueled steam plant in Shelton. Once used, the water is discharged directly to Oakland Bay. Steam is generated for driving machinery and drying lumber. Excess steam is used to generate up to 12 megawatts of electric power. Simpson is currently considering building a modern steam plant to replace the existing old one. A larger facility is contemplated that would generate up to 15 megawatts of power to be marketed to local utilities or on the regional power grid. The larger facility could require that diversion from Goldsborough Creek be increased from the current level in order to meet temperature limitations on the discharge water. Woodwaste from the plant's operation provides the fuel for steam generation.

Due to concerns about the effect of increased diversions on the fisheries resources of Goldsborough Creek, WDOE undertook an instream flow incremental method (IFIM) study on the creek with assistance of Simpson Timber Company, the Squaxin Island Indian Tribe, the U.S. Fish and Wildlife Service, WDG, and WDF. This study is discussed on pgs. 19-21 of this report.

Irrigation

Agriculture plays a relatively minor role in the economy of Mason County because the county lacks large areas of naturally fertile soil, is covered by dense forests, and is relatively dry during the summer months. An estimated total of 750 acres were irrigated in WRIA 14 in 1975. Surface water use for irrigation totaled 637 acre-feet and ground water use totaled 601 acre-feet for the year.

According to WDOE regional personnel, there is a trend in the WRIA to develop and irrigate small acreage parcels. These small parcels range from 1 to 5 acres and irrigation of them is becoming an important and major water use.

Hydroelectric Power

Hydropower projects are a nonconsumptive user of water with respect to the total discharge expected at the mouth of a stream. When hydropower projects involve a bypassed reach, they are considered by WDOE to be a consumptive user with respect to that bypassed reach. A bypass reach is created when diverted water is carried in a canal or pipeline outside the channel to a powerhouse site some distance downstream from the dam. The diversion of stream flow and the resultant lowering of flows in the bypassed reach could result in adverse impacts on a stream and its instream resources, especially fisheries, unless adequate minimum flows are maintained.

At the present time, only one hydropower project is proposed in WRIA 14. The proposed project would be constructed at the existing Simpson Timber Company diversion dam located on company land approximately two miles west of Shelton. Mason County Public Utility District No. 3 has received a preliminary permit from the Federal Energy Regulatory Commission (FERC) to proceed with studies for licensing a hydropower project on Goldsborough Creek.

TECHNICAL BASIS OF PROPOSED INSTREAM FLOWS

A considerable amount of physical data was collected by WDOE regarding the hydrology of the streams of WRIA 14 and the instream flow requirements of instream resources, particularly anadromous fish.

HYDROLOGY - Long-term stream discharge records were available for several of the important streams in the study area as follows:

<u>Stream</u>	<u>Gage No.</u>	<u>Drainage Area</u>	<u>Period of Record</u>
Deer Creek	12-0750-00	13.4	1/43 – 9/43 8/48 – 9/51
Cranberry Creek	12-0755-00	17	1/43 – 10/43 8/48 – 10/51
Johns Creek	12-0760-00	21	1/43 – 9/43 8/48 – 9/50 6/51 – 9/51
Goldsborough Cr.	12-0765-00	52	6/51 – 9/71
Mill Creek	12-0775-00	31	12/42 – 9/43 6/51 – 9/51
Skookum Creek	12-0780-00	21	7/51 – 10/58
Kennedy Creek	12-0784-00	20.3	2/60 – 9/71

Miscellaneous (noncontinuous) flow measurements were available for a number of other streams of interest. WDOE collected additional miscellaneous measurements during 1980-83 on many streams to improve the data base for correlating stream flows of ungaged basins to long term gages such as that on the Goldsborough Creek. Hydrographs were developed for many of these streams by WDOE to serve as a basis for evaluating proposed instream flows. These hydrographs are provided in Appendix B. Detailed information regarding the collection of hydrologic data, flow correlation and development of hydrographs is contained in the WDOE Technical Report for WRIA 14.

GOLDSBOROUGH CREEK INFLOW STUDY - Goldsborough Creek was of specific interest due to the high existing level of diversions from the creek and the potential of existing water right holders to divert even more water than currently is diverted. Because the long-term stream gage was located above the point where most of the diversion takes place, WDOE decided to collect adequate data to allow estimation of inflow along several reaches of the creek.

This study by WDOE affirms the presumption that considerable inflow does occur as Goldsborough Creek flows downstream, and particularly below the dam where the creek flows through the lower valley. Coffee Creek contributes a significant amount of inflow in this area, however, ground water inflow from the shallow aquifer and bank storage is also very significant.

This study and its results are discussed in greater detail in the WDOE Technical Report for WRIA 14.

FLOW RECOMMENDATIONS FOR FISH - Information and recommendations regarding the flow needs of fish was provided to WDOE by WDG, WDF, and the Squaxin Island Indian Nation. WDF obtained channel width measurements for most of the streams supporting anadromous fish in WRIA 14. These measurements were used by WDF and WDG to derive recommended instream flows for salmon and steelhead using the "U.S.G.S." method, an instream flow technique developed cooperatively by WDF, WDG, and the United States Geological Survey. This method uses standard regression equations developed from data collected at sample sites on many Western Washington streams to derive preferred rearing and spawning flows. Recommended instream flow of WDF and WDG listed in Table 2, pg. 20, were so derived.

The initial recommendations of the Squaxin Island Indian Nation, also in Table 2, pg. 20, were based on tribal biologists knowledge of typical spawning and rearing flows.

GOLDSBOROUGH CREEK INSTREAM FLOW STUDY

Because of the high level of existing use of Goldsborough Creek and the potential development of a hydroelectric generation facility on the creek, WDOE, in cooperation with Simpson Timber Company, the Squaxin Tribe, WDF, WDG, and the U.S. Fish and Wildlife Service undertook a special Instream Flow Incremental Method (IFIM) study for Goldsborough Creek. The IFIM technique, developed by the Cooperative Instream Flow Service Group of the U.S. Fish and Wildlife Service, involves the collection of discharge, stage, velocity, and depth measurements over a range of flows to develop a hydraulic model of behavior of these parameters with changes

Table 2. State Departments of Fisheries and Game and Squaxin Island Indian Tribe
Stream Flow Recommendations

Stream Name	WDG		WDF			Squaxin Island Indian Tribe		
	12/1-7/1	7/15-11/15	Spawn	Rear	Other Recs	6/1-10/1	10/1-6/1	Other Recs
Alderbrook Cr.					6/1-11/1 closure			
Campbell Cr.	27	6			6/1-11/1 closure			6/1-9/1 closure
Coffee Cr.	40	4			Closure-all year			
Cranberry Cr.	50	12	55	10	6/1-11/1 closure	8	12	
Deer Cr.	69	17	75	22	6/1-11/1 closure	10	20	
Elson Cr.					Closure-all year			
Goldsborough Cr.	95	26	110	21.7	Closure-all year	20	100	
Gosnell Cr.	62	15	70	18	6/1-11/1 closure			
Jarrell Cr.			14	2		0.3	5	
John's Cr.	64	16	65	13	Closure-all year	12	30	
Jones Cr.			16	3	6/1-11/1 closure			
Kennedy Cr.	83	22	75	14	Closure-all year	8	20	
Little Cr.	28	6			Closure-all year			Closure-all year
Malaney Cr.			22	5	6/1-11/1 closure			Closure-all year
Mill Cr.	78	20	70	18	6/1-11/1 closure	15	30	
Perry Cr.	50	12	55	10	6/1-11/1 closure	5	9	
Rock Cr.					Closure-all year			
Schneider Cr.	33	7	35	6	Closure-all year			Closure-all year
Schumocher Cr.	36	8	19	7	Closure-all year			
Shelton Cr.	25	5	25	4	6/1-11/1 closure	4	8	
Sherwood Cr.	70	18	85	17	6/1-11/1 closure	14	20	
Skookum Cr.	39	8	40	8	Closure-all year	5	10	
Twanoh Cr.	24	5			6/1-11/1 closure			
Uncle John Cr.			21	3	6/1-11/1 closure			Closure-all year
Fawn Lake Outlet (0026)			12	2	6/1-11/1 closure	2.5	6	

in flow through typical channel sections. The areal distribution of substrate types and sizes is also included in the model. Velocity, depth, and substrate preference criteria are specified for various fish species and life stages of interest. These criteria are interfaced by computer with the hydraulic model to derive weighted usable channel area for various levels of discharge for each fish species and lifestage. Graphs of weighted usable area versus discharge can be created for each species/lifestage and used to evaluate instream flow requirements for fish.

Two study sites were established on Goldsborough Creek, one at about river mile 0.5 and the other at about river mile 2.2. The lower study area was chosen to typify the lower 1.5 miles of Goldsborough Creek. In this reach, the creek is located within a well defined trapezoidal channel, held in place by levees, and has a consistent moderate slope. The bottom consists of cobbles, patch gravel, and some boulders. The upper study site represents the more natural channel morphology of Goldsborough Creek above the dam and in the mile immediately below the dam. Here, the stream flows through pool and riffle sequences in a broader, nonuniform channel. Substrate consists of gravel and cobble in riffle areas and gravel and fines in pool areas.

Physical data was collected from the 10 cross sectional transects in these two study sites. Four sets of discharge, velocity, depth, and water surface elevation data were collected. An IFG-4 hydraulic model was developed using the University of Washington Cyber mainframe computer. Velocity, depth, and substrate preference criteria for chinook, coho, and chum salmon and steelhead trout were developed with WDF and WDG. Using this information, weighted usable area versus discharge tables were obtained from the computer. These are plotted in Appendix C.

These curves were used as the basis for determining proposed instream flows for Goldsborough Creek. Steelhead spawning requirements received the strongest consideration for winter and spring time flows. Summer flows were determined considering the needs of the rearing coho and steelhead juveniles. Fall flows are intended to meet chum and coho salmon needs. Chinook salmon are apparently so few in Goldsborough Creek that it was assumed that protecting chum and coho habitat will provide these few chinook adequate habitat. Because different species/lifestages may prefer different conditions, it is necessary during some periods to optimize among them. This is the case for coho and chum spawning which occurs during the same time. A compromise spawning flow was selected that provides plenty of weighted usable area for both species.

The hydrographs developed for the streams of WRIA 14, together with the fish habitat data developed using the U.S.G.S. method for most streams and the IFIM method for Goldsborough Creek, were used to develop the instream flows and other action proposed by WDOE in this program.

CURRENT ADMINISTRATIVE STATUS

Of the streams inventoried in Water Resource Inventory Area 14, three are currently closed to additional consumptive appropriation, and five have instream flow limitations. These closures and low flow conditions were established as water right actions of WDOE or its predecessor agencies under the authority of Chapter 75.20 RCW (Fisheries Code) and in consultation with the Departments of Game and Fisheries, as required by that statute. A lake level limitation on Summit Lake was established by court decree. The remaining streams of WRIA 14, including lakes, are currently free from any surface water source limitations (see Table 3, below).

Table 3

Existing Surface Water Source Limitations in WRIA 14

Stream*	<u>Tributary to</u>	<u>Source Limitation</u>	<u>Effective Date</u>
Goldsborough Creek	Oakland Bay	Closure	4/14/1954
Gosnell Creek	Isabella Lake	Low flow (10 cfs at a point 600' E – 200' N of W¼ corner S. 10, T. 19 N., R. 4 WWM 12-4-61	
Jarrell Creek	Jarrell Cove	Low flow (.30 cfs or less)	7/7/1959
Johns Creek	Oakland Bay	Low flow (4 cfs at a point 650' N – 650' E of center of Sec. 1, T. 20 N, R. 4 WWM 7/7/1959	
Kennedy Creek	Totten Inlet	Low flow (3 cfs)	10/15/1953
Schneider Creek	Totten Inlet	Closure	5/4/1953
Skookum Creek	Skookum Inlet	Closure	6/25/1975
Summit Lake	Kennedy Creek	Lake level (court ordered)	11/29/1954
Unnamed stream in Sec. 34, T.20N., R. 3 E.W.M.	Mill Creek	Low flow (2 cfs at a point 1000' E & 800' N of SW corner Sec. 34, T. 20 N., R. 3 WWM)	2/11/1953

*Closures and low flow limitations also apply to tributaries of these streams.

PROPOSED ADMINISTRATIVE STATUS

WDOE proposed to adopt administrative rules (proposed Chapter 173-514 WAC) for the purpose of protecting and preserving the instream values of streams in WRIA 14. The department proposes to (1) officially adopt as administrative rules, the existing surface water source limitations listed in Table 3 of this report, except as indicated in the footnotes in WAC 173-514-040(3), (2) adopt new closures to consumptive uses for sixteen streams in WRIA 14, and (3) adopt minimum instream flows on ten streams in WRIA 14. Additional details regarding these proposals follows. These actions would apply to the specific streams named and all tributaries including lakes. Uses which are proposed to be exempt from the instream flows and closures include: 1) existing water rights, 2) single domestic use which includes up to ½ acre of land and garden irrigation, 3) stockwatering, except that related to feedlots, and 4) nonconsumptive uses. See summary of proposed actions, pgs. 31-34 for more details.

Projects that reduce the flow in a portion of a stream's length (e.g.: hydroelectric projects) will be considered independently on a case-by-case basis in accordance with proposed WAC 173-514-030(5). Under this subsection, bypass type projects will not be subject to stream closures or instream flows specified in the proposed regulation. Instream flows and water right approvals will be evaluated on a case-by-case basis in consideration of the instream flow needs of the bypassed reach. Specific instream flow studies may be required to be performed by the applicant.

EXISTING SURFACE WATER SOURCE LIMITATION

The existing lake level, low flow limitations, and closures listed in Table 3, page 22, of this report are proposed to be confirmed and adopted as administrative rules in proposed Chapter 173-514 WAC, except as follows: 1) the closure to all consumptive uses on Goldsborough and Skookum creeks will extend from May 1 to October 31 each year. Minimum flows are proposed all year as indicated in Section 173-514-030(2), Administrative Rules, 2) the closure to all consumptive uses on Schneider Creek and Jarrell Creek will extend from May 1 to October 31 each year. The minimum flow during the closure period will be the natural flow; the minimum flow outside the closure period on any water right request will be considered on a case-by-case basis, and 3) the closure to all consumptive uses on Johns Creek will extend from September 16, to November 15, each year, and on Kennedy Creek will extend from May 1 to November 15, each year. Minimum flow limitations are proposed for these streams as indicated in Section 173-514-030(2), Administration Rules.

PROPOSED STREAM CLOSURES

The following small streams in WRIA 14 support viable anadromous fish runs and provide locally important recreation opportunities and aesthetic value:

Jarrell Creek	Campbell Creek
Uncle John Creek	Little Creek (Little Skookum Cr.)
Fawn Lake Outlet	Perry Creek
Elson Creek	Shelton Creek
Twanoh Creek	Jones Creek
Melaney Creek	Alderbrook Creek

Because of the small size of these streams, any significant future consumptive diversions, particularly during the annual low flow period, would be harmful to instream values. WDOE, therefore, proposes to close these streams to further appropriations of water for consumptive purposes from May 1 through October 31 to protect instream values during the annual low flow period. It is the intent of WDOE, that during the closure period, the minimum instream flow is the natural flow. Except for Perry Creek, insufficient flow data is available during the high flow period on these streams to permit development of proposed instream flows. Minimum flows for any water right applications for consumptive uses during the high flow period (except Perry Creek) will be considered on a case by case basis in accordance with RCW 75.20.050 in consultation with the departments of Game and Fisheries. The actions proposed for Perry Creek include establishing year round minimum flows on the creek and closing it to all consumptive uses from May 1 to October 31 each year.

WDOE also proposes to close Kennedy Creek from May 1 through November 15 to any further appropriation of water for all consumptive uses. While Kennedy Creek is one of the larger streams in WRIA 14, it commonly experiences very low natural flows of less than five cubic feet per second during the low flow period. Because the creek supports important stocks of chum and coho salmon and steelhead trout, this closure is necessary to protect these resources.

In addition, the department proposes to close Deer Creek, Cranberry Creek, Johns Creek, and Sherwood Creek from September 16 to November 15 each year to any further consumptive water uses. This closure is necessary to protect the early-timed chum runs which begin migrating and spawning in the creeks in mid to late September.

PROPOSED MINIMUM FLOWS

The department proposes to establish minimum instream flows on 10 streams (see Figures 2-7, pgs. 26-28). The purpose of establishing minimum instream flows is to protect the instream values including: recreation, fish, wildlife, scenic, aesthetic, navigation, water quality, and other environmental values of the streams.

PROPOSED CONTROL STATIONS

The following proposed network of control stations (see Figures 8, pg. 29). is intended to provide control of future surface water appropriations under permits provisioned with the minimum flows established herein. Minimum instream flows are proposed for the following stream management reaches:

<u>Control Station No.</u> <u>Stream Management</u> <u>Unit Name</u>	<u>Control Station by</u> <u>River Mile and Sec.</u> <u>Township, & Range</u>	<u>Stream Management Reach</u>
A. WDOE-0740-50 Shumocher Creek	0.02 Sec. 7, T. 21 N., R. 2 WWM	From Mason Lake to headwaters including all tributaries.
B. WDOE-0745-50 Sherwood Creek	0.14 Sec. 20, T. 22 N., R. 1 WWM	From influence of mean annual high tide at low instream flow levels to Mason Lake, including Mason Lake and all tributaries.
C. 12-0750—00 Deer Creek	0.8 Sec. 36, T. 21 N., R. 3 WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.
D. 12-0755-00 Cranberry Creek	0.5 Sec. 36, T. 21 N., R. 3 WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including Cranberry Lake, Lake Limerick, and all tributaries.
E. 12-0760-00 Johns Creek	2.5 Sec. 3, T. 20 N., R. 3 WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.
F. WDOE-0770-50 Goldsborough Creek	0.23 Sec. 20, T. 20 N., R. 3 WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.
G. WDOE-0775-50 Mill Creek	3.1 Sec. 25, T. 20 N., R. 3 WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including Lake Isabella and all tributaries.
H. 12-0780-00 Skookum Creek	3.0 Sec. 19, T. 19 N., R. 3 WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.

FIGURE 2 CRANBERRY CREEK AND DEER CREEK INSTREAM FLOW HYDROGRAPH

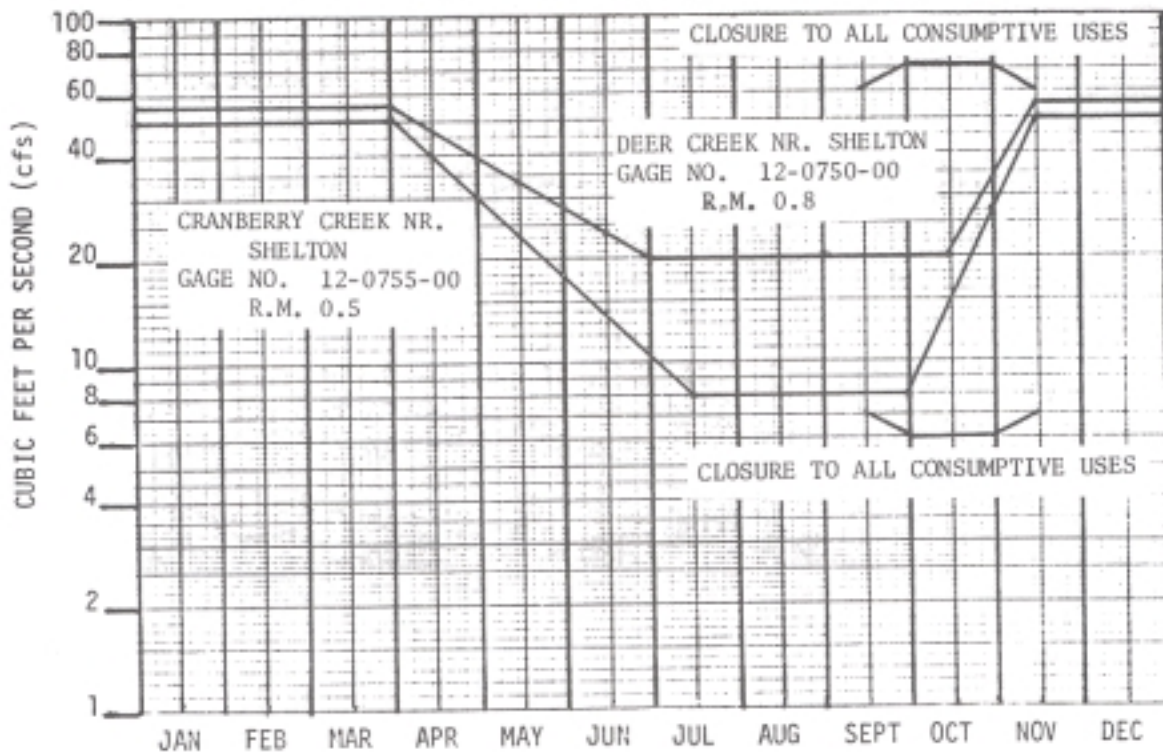


FIGURE 3 SHERWOOD CREEK AND JOHNS CREEK INSTREAM FLOW HYDROGRAPH

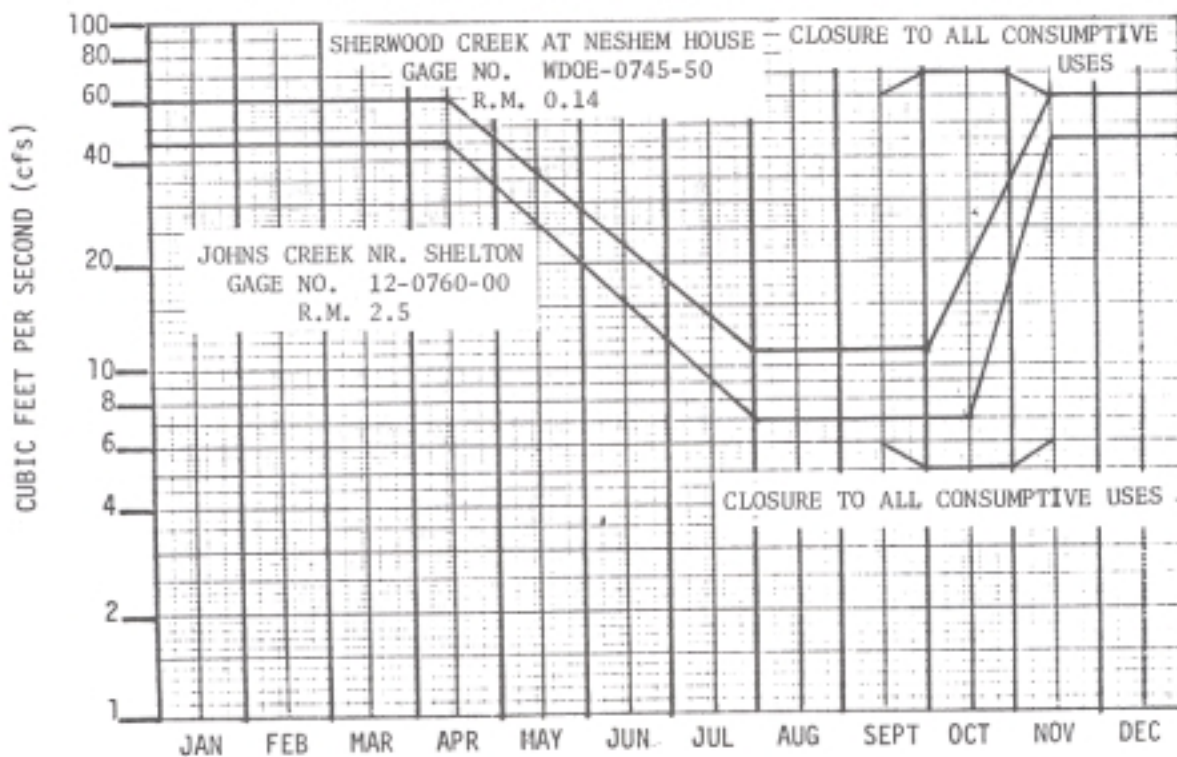


FIGURE 4 MILL CREEK AND SHUMOCHER CREEK INSTREAM FLOW HYDROGRAPH

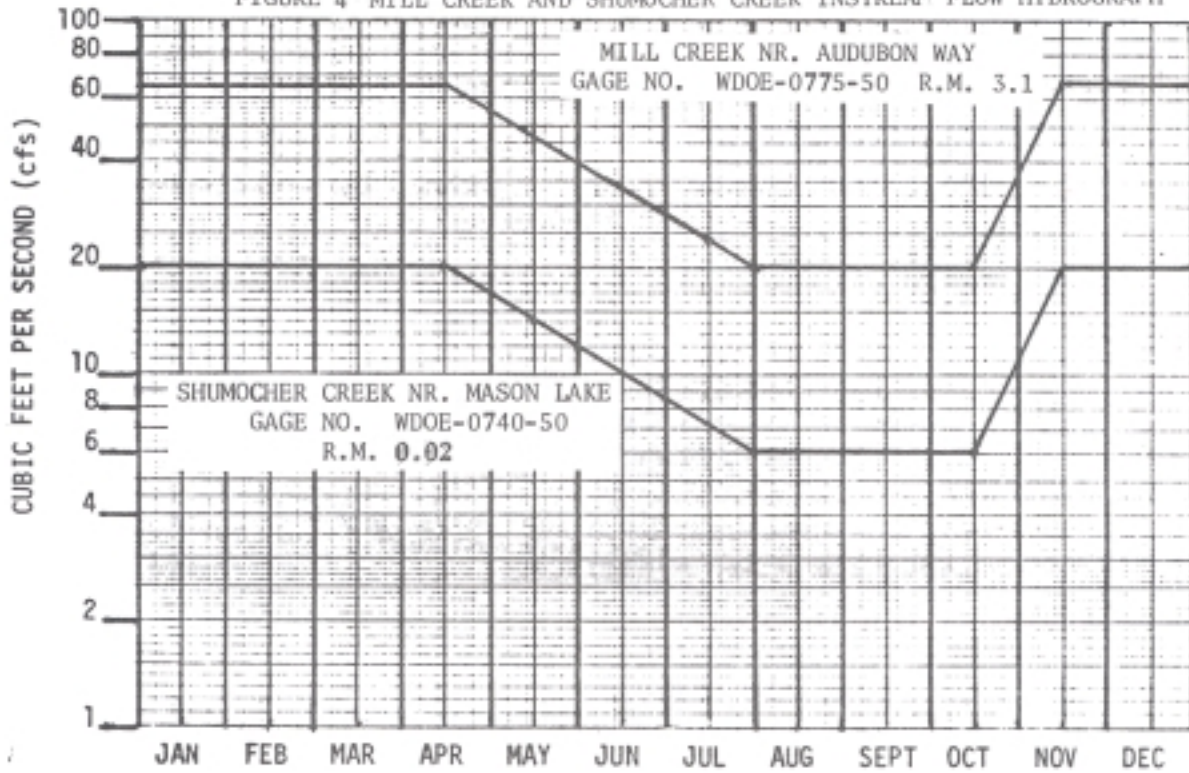


FIGURE 5. PERRY CREEK AND SKOOKUM CREEK INSTREAM FLOW HYDROGRAPH

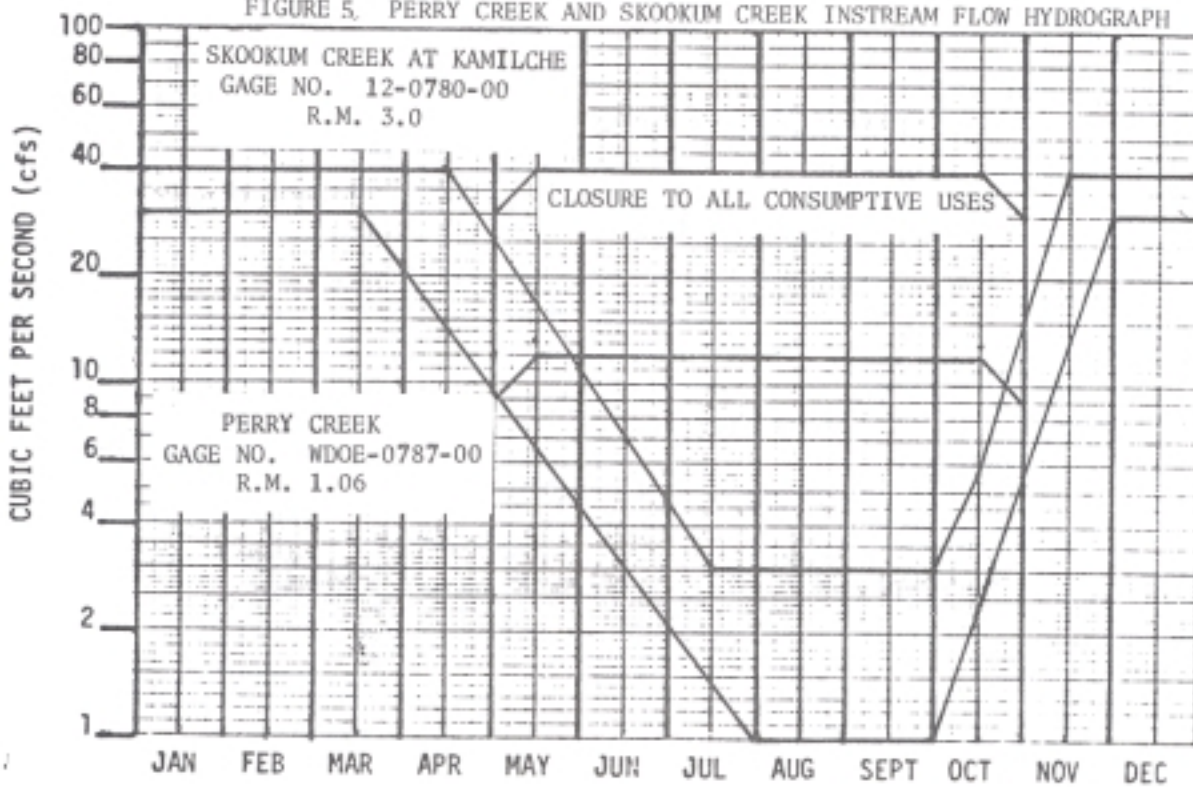


FIGURE 6 KENNEDY CREEK INSTREAM FLOW HYDROGRAPH

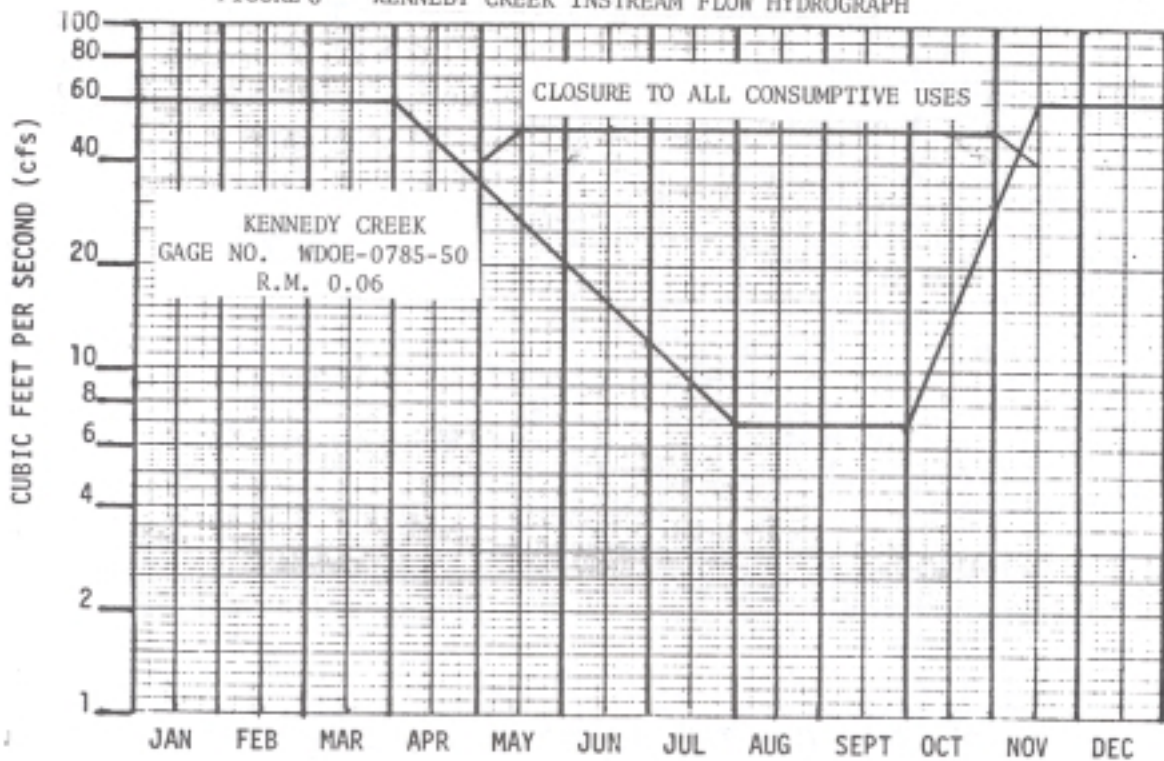
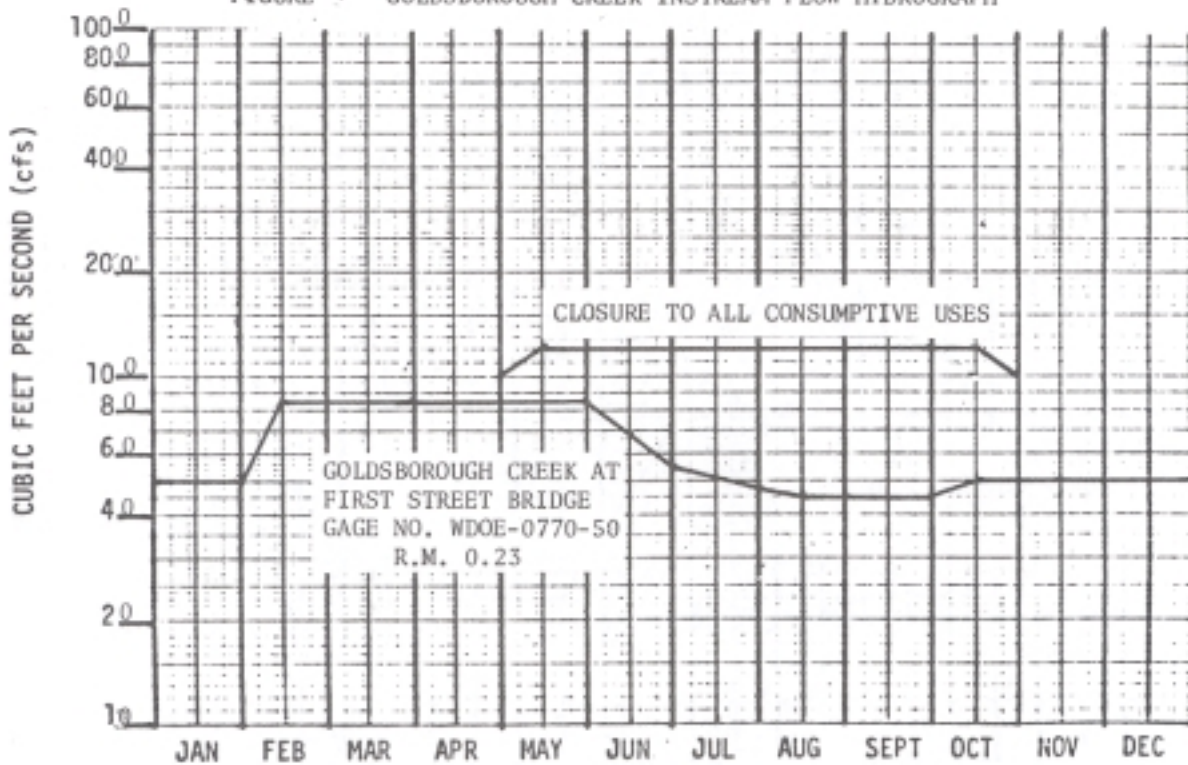


FIGURE 7 GOLDSBOROUGH CREEK INSTREAM FLOW HYDROGRAPH



I.	WDOE-0785-50 Kennedy Creek	0.06 Sec. 32, T. 19 N., R. 3 WWM	From influence of mean annual high tide at low instream flow levels to Summit Lake and headwaters, including Summit Lake and all tributaries..
J.	WDOE-0787—00 Perry Creek	1.06 Sec. 13, T. 18 N., R. 3 WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.

SUMMARY OF PROPOSED ACTIONS

<u>Stream</u>	<u>Current Status</u>	<u>Proposed Action</u>
Alderbrook Cr.	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Campbell Cr.	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Cranberry Cr.	None	Closure to all consumptive uses from September 16 to November 15. Minimum flows established*
Deer Cr.	None	Closure to all consumptive uses from September 16 to November 15. Minimum flows established*
Elson Cr.	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Fawn Lake Outlet	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.

*See Section 173-514-030(2) Administrative Rules

<u>Stream</u>	<u>Current Status</u>	<u>Proposed Action</u>
Goldsborough Cr.	Closure, all year	Closure to all consumptive uses from May 1 to October 31. Minimum flows established.*
Gosnell Cr.	Low flow (10 cfs)	Confirm existing low flow.
Jarrell Cr.	Low flow (.30 cfs)	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Jones Cr.	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Johns Cr.	Low flow (4 cfs)	Closure to all consumptive uses from September 16 to November 15. Minimum flows established.*
Kennedy Cr.	Low flow (3 cfs)	Closure to all consumptive uses from May 1 to November 15. Minimum flows established.*
Little Cr.	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.

*See Section 173-514-030(2) Administrative Rules

<u>Stream</u>	<u>Current Status</u>	<u>Proposed Action</u>
Melaney Cr.	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Mill Creek	None	Minimum instream flows established.*
Perry Cr.	None	Closure to all consumptive uses from May 1 to October 31. Minimum flows established.*
Schneider Cr.	Closure, All Year	Closure to all consumptive uses from May 1 to Oct. 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Shelton Cr.	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Sherwood Cr.	None	Closure to all consumptive uses from September 16 to November 15. Minimum flows established.*
Shumocher Cr.	None	Minimum instream flows Established.*
Skookum Cr.	Closure, All Year	Closure to all consumptive uses from May 1 to Oct. 31. Minimum flows established.*

*See Section 173-514-030(2) Administrative Rules

<u>Stream</u>	<u>Current Status</u>	<u>Proposed Action</u>
Summit Lake	Lake Level, All Year	Confirm existing lake level.
Twahnoh Cr.	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Uncle John Creek	None	Closure to all consumptive uses from May 1 to October 31. Minimum flow during the closure period is the natural flow. Minimum flow outside the closure period will be considered on a case-by-case basis.
Unnamed Stream Trib. Mill Cr.	Low flow (2 cfs)	Confirm existing low flow

BIBLIOGRAPHY

- Mason County. 1971. Comprehensive Water and Sewer Plan and Water Pollution Control and Abatement Plan (Sewage Drainage Basins 14 and 16). Prepared by R. W. Beck and Associates. Seattle, WA.
- Mason Regional Planning Council. 1970. Comprehensive Plan – Shelton Planning Area. Prepared by Consulting Services Corporation, Howard Godat and Associates. Seattle-Olympia, WA.
- Puget Sound Task Force - Pacific Northwest River Basins Commission. 1970. Puget Sound and Adjacent Waters, Appendix III, Hydrology and Natural Environment.
- Squaxin Island Indian Nation. Salmon Utilization of Streams in the Kennedy-Goldsborough WRIA, Unpublished Report by Dave Whitener. Prepared for Department of Ecology.
- U.S. Department of Agriculture, Soil Conservation Service. 1960. Prepared in Cooperation with Washington Agricultural Experiment Stations. Mason County, WA.
- U.S. Geological Survey. 1947. Ground Water of the South-Bar Area, Grays Harbor, Washington by R. C. Newcomb. Prepared in cooperation with the Washington Department of Conservation and Development. WA.
- U.S. Geological Survey. 1978. Low Flow Characteristics of Streams on the Olympic Peninsula, Washington. Prepared in cooperation with State of Washington, Department of Fisheries and Department of Game. WA.
- U.S. Geological Survey. 1977. Municipal, Industrial, and Irrigation Water Use in Washington, 1975. Open-file Report 77-308. Prepared in cooperation with the Washington Department of Ecology.
- U.S. Geological Survey. 1976. Reconnaissance of Ground Water Resources of the Squaxin Island Indian Reservation, Washington. Prepared in cooperation with the Squaxin Island Indian Tribal Council. Tacoma, WA.
- Washington Department of Ecology, Office of Water Programs. 1979. Forest Practice Water Quality Management Plan. WA.
- Washington Department of Ecology, Office of Water Programs, 1982. Kennedy-Goldsborough Basin, WRIA 14, Technical Document, Office Report No. 73, by Ray Newkirk, Olympia, Washington.
- Washington Department of Fisheries. 1975. A Catalog of Washington Streams and Salmon Utilization, Vol. 1. Puget Sound, WA.

Washington Department of Fisheries. 1981. Salmon Utilization of Streams in the Kennedy-Goldsborough Basin (WRIA 14), Unpublished Report by Gordon Zillges. Prepared for the Department of Ecology. WA.

Washington Department of Game. Wildlife of the Kennedy Creek-Goldsborough Creek Basin (WRIA 14) and its Relationship To Instream Flows With Recommendations For Instream Flows, Unpublished Report by Hal Beecher. Prepared for Department of Ecology.

Washington Department of Water Resources, Water Supply Bulletin No. 29. 1970. Geology and Related Ground Water Occurrence, Southeastern Mason County, Washington, by Dee Molenaar and John B. Noble. Prepared in cooperation with U.S. Geological Survey, Water Resources Division. WA.

Washington State University, Cooperative Extension Service, College of Agriculture. 1968. Washington Climate for these counties: King, Kitsap, Mason, and Pierce.

DISTRIBUTION LIST

Federal Agencies

National Marine Fisheries Service
U.S. Fish and Wildlife Service
U.S. Geological Survey
U.S. Environmental Protection,
Agency, Region X
U.S. Soil Conservation Service
Bonneville Power Administration
Energy Facility Site Evaluation Council
Heritage Conservation &
Recreation Service

State Agencies

Washington Natural Heritage Program
Washington State Ecological
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Department of Natural Resources
Department of Social and Health
Services
Department of Game
Department of Fisheries
Department of Agriculture
Department of Commerce and
Economic Development
Department of Planning and Community
Affairs Agency
Office of Financial Management
Washington Parks and Recreation Commission
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Outdoor Recreation
Department of Transportation
Washington State Association of Counties
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Washington Farm Bureau
Washington PUD Association
Wash. Environmental Council

Regional Agencies

Community Action Council –
Mason/Thurston
Puget Sound Council of Governments

Communities

City of Shelton
Hartstene Island Community Club

Public Utility District

Mason County PUD #3

Indian Tribes

Squaxin Island Indian Nation

Organizations

Washington State Dairyman's
Federation
Friends of the Earth
League of Women Voters
Audubon Society
Pacific Northwest Waterways
Association
Washington state Commercial
Passenger Fishing Vessel Association
Nature Conservancy
Steelhead Trout Club of Washington
Washington State Sportsmen's Council
Purse Seine Vessel Owners Association
Washington Kayak Club
Citizens for Clean Water
Independent Order of Foresters
Washington Timberland Management
Washington State Council of
Farmer Cooperatives
National Federation of Fisheries
Northwest Steelhead & Salmon Council
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Mason County Parks and Recreation
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Mason County Health Department
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Communities

Simpson Timber Co.
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Private Businesses

CH2M Hill
Mason County Realtors Ass'n
I.B.E. W. Local 89
Douglas Fir Christmas Tree Co.
Hartstene Oyster Co.
Taylor United, Inc.
Blanton Oyster Co.
Sargent Oyster Co., Inc.
Skookum Bay Oyster Co.

APPENDIX A

PROPOSED ADMINISTRATIVE RULES

Chapter 173-514 WAC
Instream Resources Protection Program--Kennedy-Goldsborough
Water Resource Inventory Area (WRIA) 14

NEW SECTION

WAC 173-514-010 GENERAL PROVISION. These rules apply to waters within the Kennedy-Goldsborough Water Resource Inventory Area (WRIA 14), as defined in WAC 173-500-040. This chapter is promulgated pursuant to Chapter 90.54 RCW (Water Resources Act of 1971), Chapter 90.22 RCW (Minimum Water Flows and Levels), Chapter 75.20 RCW (State Fisheries Code) and in accordance with Chapter 173-500 WAC (Water Resources Management Program).

NEW SECTION

WAC 173-514-020. PURPOSE. The purpose of this chapter is to retain perennial rivers, streams, and lakes in the Kennedy-Goldsborough Water Resource Inventory Area with instream flows and levels necessary to provide protection for wildlife, fish, scenic, aesthetic, and environmental values, recreation, navigation, and water quality.

NEW SECTION

WAC 173-514-030. ESTABLISHMENT OF INSTREAM FLOWS. (1) Stream management units and associated control stations are established as follows:

Stream Management Unit Information

<u>Control Station No. Stream Management Unit Name</u>	<u>Control Station by River Mile and Sec. Township, & Range</u>	<u>Stream Management Reach</u>
12-0740-00 Shumocher Creek	.02 Sec. 7, T.21N., R.2WWM	From Mason Lake to headwaters including all tributaries.
WDOE-0745-50 Sherwood Creek	0.14 Sec.20, T.22N., R.1WWM	From influence of mean annual high tide at low instream flow levels to Mason Lake, including Mason Lake and all tributaries.
12-0750-00 Deer Creek	0.8 Sec.20, T.21N., R.3WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.

12-0755-00 Cranberry Creek	0.5 Sec.36, T.21N., R.3WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including Cranberry Lake, Lake Limerick and all tributaries.
12-0760-00 Johns Creek	2.5 Sec.3, T.20N., R.3WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.
WDOE-0770-50 Goldsborough Creek	0.23 Sec.20, T.20N., R.3WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.
WDOE-0775-50 Mill Creek	3.1 Sec.25, T.20N., R.3WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including Lake Isabella and all tributaries.
12-0780-00 Skookum Creek	3.0 Sec.19, T.19N., R.3WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.
WDOE-0785-50 Kennedy Creek	0.06 Sec.32, T.19N., R.3WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including Summit Lake and all tributaries.
WDOE-0787-00 Perry Creek	1.06 Sec.13, T.18N., R.3WWM	From influence of mean annual high tide at low instream flow levels to headwaters, including all tributaries.

(2) Instream flows are established for the stream management units in WAC 173-514-030(1) as follows:

Instream Flows in the Kennedy-Goldsborough WRIA
(Instantaneous cubic feet per second)

<u>Month</u>	<u>Day</u>	<u>12-0740-00 Shumocher Creek</u>	<u>WDOE 0745-50 Sherwood Creek</u>	<u>12-0750-00 Deer Creek</u>
Jan	1	20	60	55
	15	20	60	55
Feb	1	20	60	55
	15	20	60	55
Mar	1	20	60	55
	15	20	60	55
Apr	1	20	60	55
	15	20	60	46
May	1	17	48	39
	15	14	37	33
Jun	1	12	29	28
	15	10	23	23.5
Jul	1	8.6	17.5	20
	15	7.2	14	20
Aug	1	6	11	20
	15	6	11	20
Sep	1	6	11	20
	15	6	11	20
Oct	1	6	11*	20*
	15	6	19*	20*
Nov	1	11	34*	33*
	15	20	60*	55*
Dec	1	20	60	55
	15	20	60	55

*Denotes closure period to all consumptive uses

Instream Flows in the Kennedy-Goldsborough WRIA (Cont'd)
(Instantaneous cubic feet per second)

<u>Month</u>	<u>Day</u>	<u>12-0755-00 Cranberry Creek</u>	<u>12-0760-00 Johns Creek</u>	<u>WDOE-0770-50 Goldsborough Creek</u>
Jan	1	50	45	50
	15	50	45	50
Feb	1	50	45	50
	15	50	45	85
Mar	1	50	45	85
	15	50	45	85
Apr	1	50	45	85
	15	40	45	85
May	1	31	34	85*
	15	23.5	26	85*
Jun	1	18	20	85*
	15	14	15.5	69*
Jul	1	10.5	12	55*
	15	8	9	52*
Aug	1	8	7	48*
	15	8	7	45*
Sep	1	8	7	45*
	15	8	7	45*
Oct	1	8*	7*	45*
	15	15*	7*	50*
Nov	1	28*	18*	50
	15	50*	45*	50
Dec	1	50	45	50
	15	50	45	50

*Denotes closure period to all consumptive uses

Instream Flows in the Kennedy-Goldsborough WRIA (Cont'd)
(Instantaneous cubic feet per second)

<u>Month</u>	<u>Day</u>	<u>WDOE 0775-50 Mill Creek</u>	<u>12-0765-00 Skookum Cr.</u>	<u>WDOE-0785-50 Kennedy Creek</u>	<u>WDOE-0787-00 Perry Creek</u>
Jan	1	65	40	60	30
	15	65	40	60	30
Feb	1	65	40	60	30
	15	65	40	60	30
Mar	1	65	40	60	30
	15	65	40	60	30
Apr	1	65	40	60	21
	15	65	40	46	14
May	1	55	26*	35*	10*
	15	46	16.5*	27*	6.8*
Jun	1	40	11*	20*	4.6*
	15	33	7*	16*	3.2*
Jul	1	28	4.6*	12*	2.2*
	15	24	3*	9*	1.5*
Aug	1	20	3*	7*	1*
	15	20	3*	7*	1*
Sep	1	20	3*	7*	1*
	15	20	3*	7*	1*
Oct	1	20	3*	7*	1*
	15	20	5.6*	14*	2.5*
Nov	1	35	15	29*	5.4
	15	65	40	60*	13
Dec	1	65	40	60	30
	15	65	40	60	30

*Denotes closure period to all consumptive uses

(3) Instream flow hydrographs, as represented in the document entitled "Kennedy-Goldsborough Instream Resources Protection Program, figs. 2-7, pgs. 26-28," shall be used for identification of instream flows on those days not specifically identified in WAC 173-514-030(2).

(4) Future consumptive water right permits issued hereafter for diversion of surface water in the Kennedy-Goldsborough WRIA and perennial tributaries shall be expressly subject to instream flows established in WAC 173-514-030(1) through (3) as measured at the appropriate gage, preferably the nearest one downstream, except for those exempted uses described in WAC 173-514-060 (1) through (3).

(5) Projects that would reduce the flow in a portion of a stream's length (e.g.: hydroelectric projects that bypass a portion of a stream) will be considered consumptive only with respect to the affected portion of the stream and will be subject to specific instream flow requirements as specified by the department for the bypassed reach notwithstanding WAC 173-514-030(1) through (3) and WAC 173-514-040. The department may require detailed, project-specific instream flow studies to determine a specific instream flow for the bypassed reach.

(6) If department investigations determine that withdrawal of ground water from the source aquifers would not interfere significantly with stream flow during the period of stream closure or with maintenance of minimum flows, then applications to appropriate public ground waters may be approved and permits or certificates issued.

NEW SECTION

WAC 173-514-040. SURFACE WATER SOURCE LIMITATIONS TO FURTHER CONSUMPTIVE APPROPRIATION. (1) The department, having determined further consumptive appropriation for all uses would harmfully impact instream values, closes the following streams including tributaries for the period indicated:

(a)	<u>Stream Name</u>	<u>Tributary to</u>	<u>Closure Period</u>
	Alderbrook Creek	Hood Canal	May 1 - October 31
	Campbell Creek	Oakland Bay	May 1 - October 31
	Elson Creek	Skookum Inlet	May 1 - October 31
	Fawn Lake Outlet	Skookum Inlet	May 1 - October 31
	Jones Creek	Pickering Passage	May 1 - October 31
	Jarrell Creek	Jarrell Cove	May 1 - October 31
	Little Creek	Skookum Creek	May 1 - October 31
	Melaney Creek	Oakland Bay	May 1 - October 31
	Shelton Creek	Oakland Bay	May 1 - October 31
	Twahnoh Creek	Hood Canal	May 1 - October 31
	Uncle John Creek	Oakland Bay	May 1 - October 31

The minimum flow during the closure period on the streams listed above is the natural flow. Because insufficient flow data is available to develop instream flows outside the closure period, minimum flows for any water right application for consumptive use will be considered on a case by case basis in consultation with the departments of Fisheries and Game (RCW 75.20.050).

(b)	<u>Stream Name</u>	<u>Closure Period</u>
	Kennedy Creek	May 1 - November 15
	Cranberry Creek	September 16 - November 15
	Deer Creek	September 16 - November 15
	Johns Creek	September 16 - November 15
	Sherwood Creek	September 16 - November 15
	Perry Creek	May 1 - October 31

Because sufficient hydrologic data is available for the above streams, a minimum flow is established during the closed and nonclosed period in WAC 173-514-030(2).

(2) Except as noted in the footnotes, the following existing surface water source limitations, previously established administratively under the authority of chapter 90.03 RCW and RCW 75.20.050 are hereby confirmed and adopted for the period indicated:

<u>Stream*/Tributary To</u>	<u>Action</u>	<u>Period</u>
Goldsborough Creek - Oakland Bay	Closure+	May 1 - October 31
Gosnell Creek - Isabella Lake	Low Flow (10 cfs)	All Year
Jarrell Creek - Jarrell Cove	Low flow@ (.30 cfs)	May 1 - October 31
Johns Creek - Oakland Bay	Low flow@ (4 cfs)	Sept. 16 - November 15
Kennedy Creek - Totten Inlet	Low flow@ (3 cfs)	May 1 - November 15
Schneider Creek - Totten Inlet	Closure#	May 1 - October 31
Skookum Creek - Skookum Inlet	Closure+	May 1 - October 31
Summit Lake - Kennedy Creek	Lake Level	All year
Unnamed Stream - Mill Creek Sec.34,T.20N R3 EWM	Low Flow (2 cfs)	All Year

*Closures and low flow limitations also apply to tributaries of these streams.

@Superseded by a new action in this section.

#The minimum flow during the closure period is the natural flow.

+Minimum flows are specified in section 173-514-030(2).

NEW SECTION

WAC 173-514-050 LAKES. In future permitting actions relating to withdrawal of lake waters, lakes and ponds shall be retained substantially in their natural condition. Withdrawals of water which would conflict therewith shall be authorized only in those situations where it is clear that overriding considerations of the public interest will be served.

NEW SECTION

WAC 173-514-060 EXEMPTIONS. (1) Nothing in this chapter shall affect existing water rights, riparian, appropriative, or otherwise existing on the effective date of this chapter, nor shall it affect existing rights relating to the operation of any navigation, hydroelectric, or water storage reservoir or related facilities.

(2) Single domestic and stockwatering use, except that related to feedlots, shall be exempt from the provisions established in this chapter. If the cumulative impacts of numerous single domestic diversions would significantly affect the quantity of water available for instream uses, then only single domestic in-house use shall be exempt if no alternative source is available.

(3) Nonconsumptive uses which are compatible with the intent of the chapter may be approved.

NEW SECTION

WAC 173-514-070 FUTURE RIGHTS. No rights to divert or store public surface waters of the Kennedy-Goldsborough WRIA 14, shall hereafter be granted which shall conflict with the purpose of this chapter.

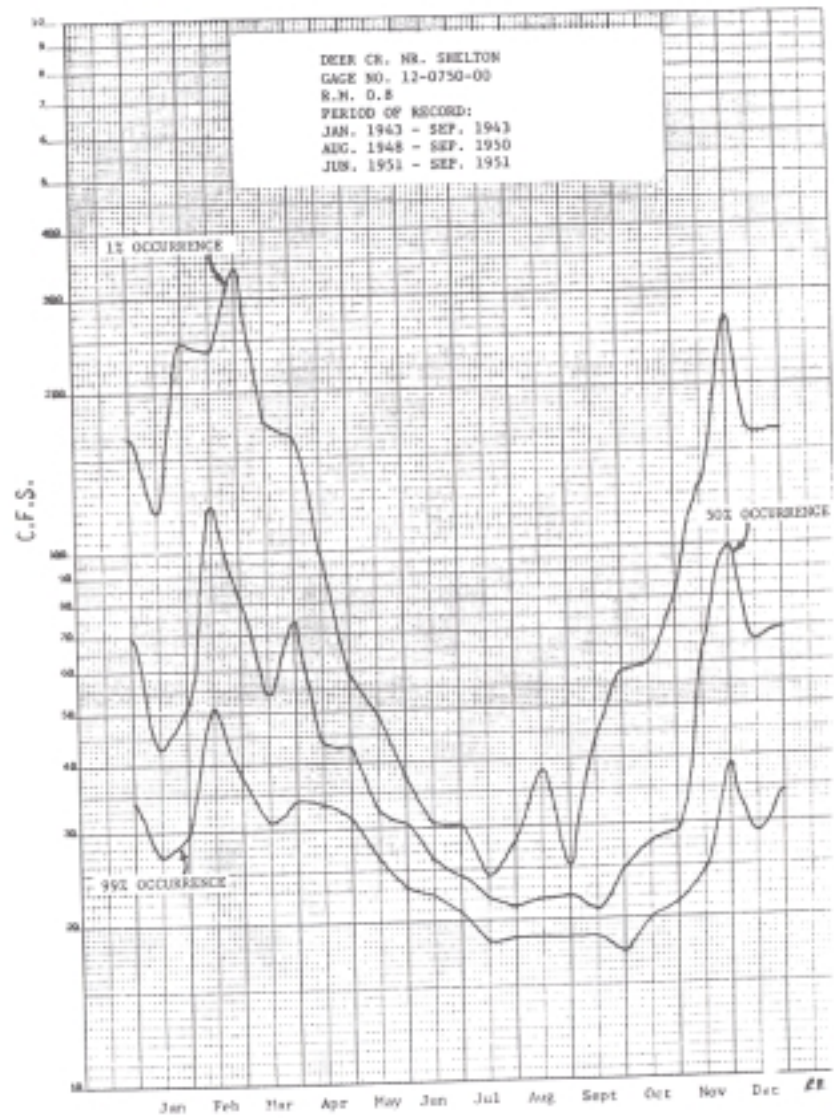
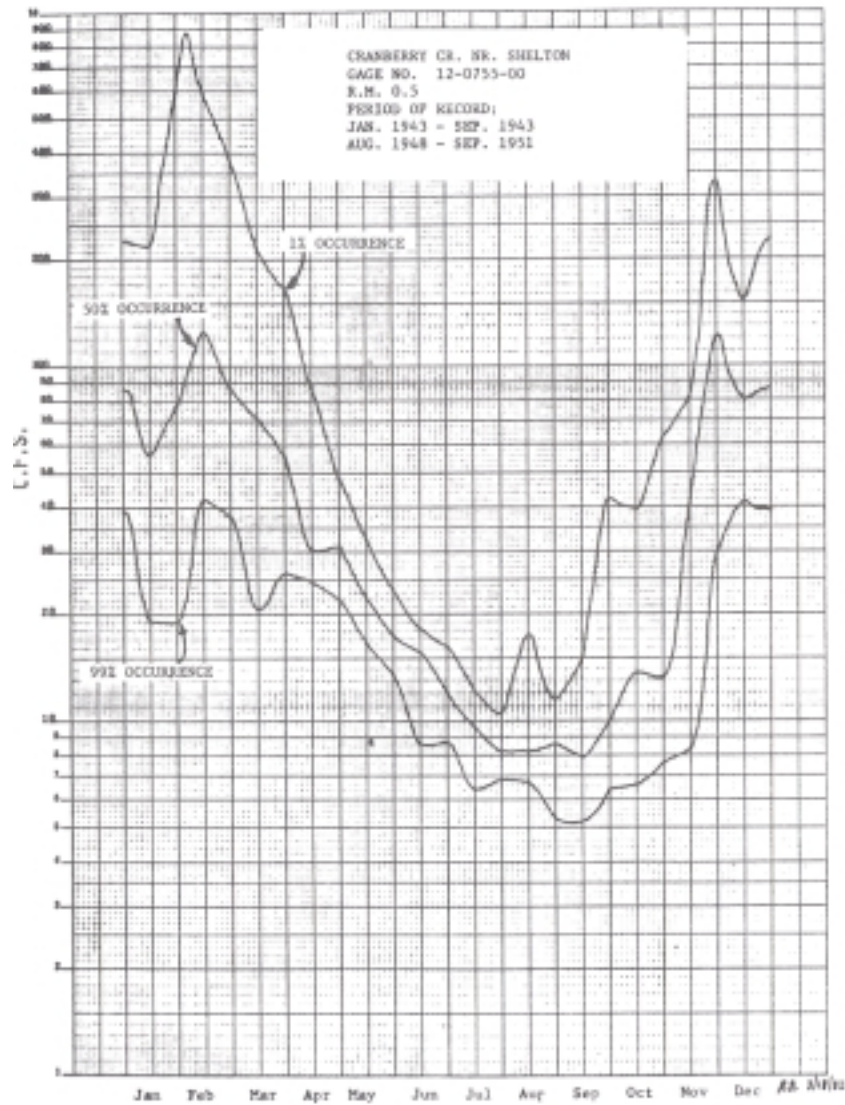
NEW SECTION

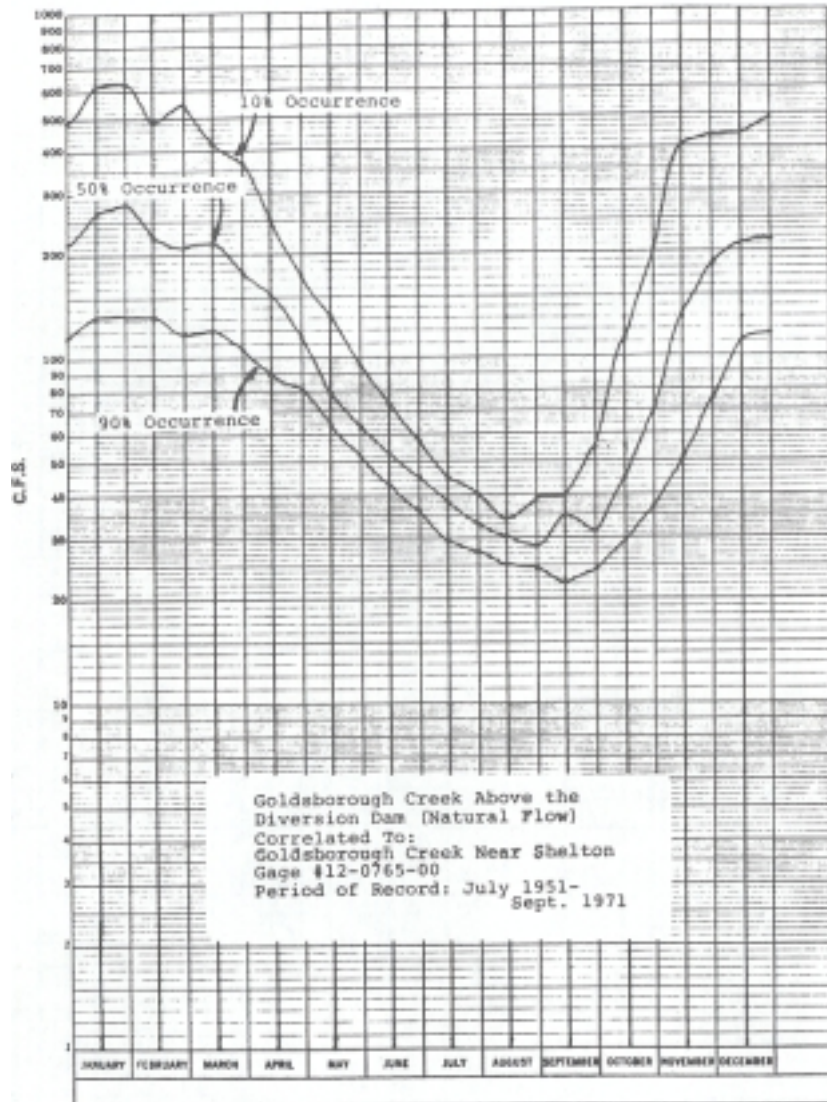
WAC 173-514-080 ENFORCEMENT. In enforcement of this chapter, the Department of Ecology may impose such sanctions as appropriate under authorities vested in it, including but not limited to the issuance of regulatory orders under RCW 43.27A.190 and civil penalties under RCW 43.83B.335.

NEW SECTION

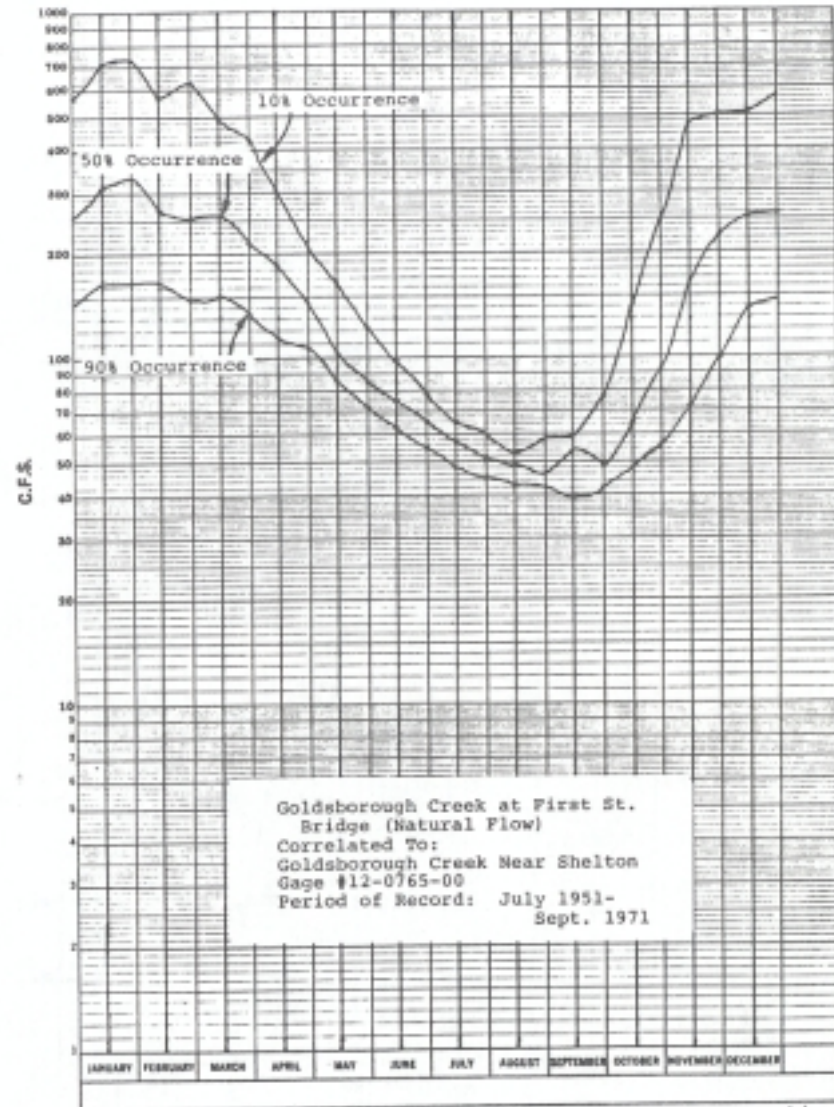
WAC 173-514-090 REGULATION REVIEW. Review of the rules in this chapter shall be initiated by the Department of Ecology within five years of the date of adoption.

APPENDIX B
HYDROGRAPHS OF WRIA #14 STREAMS

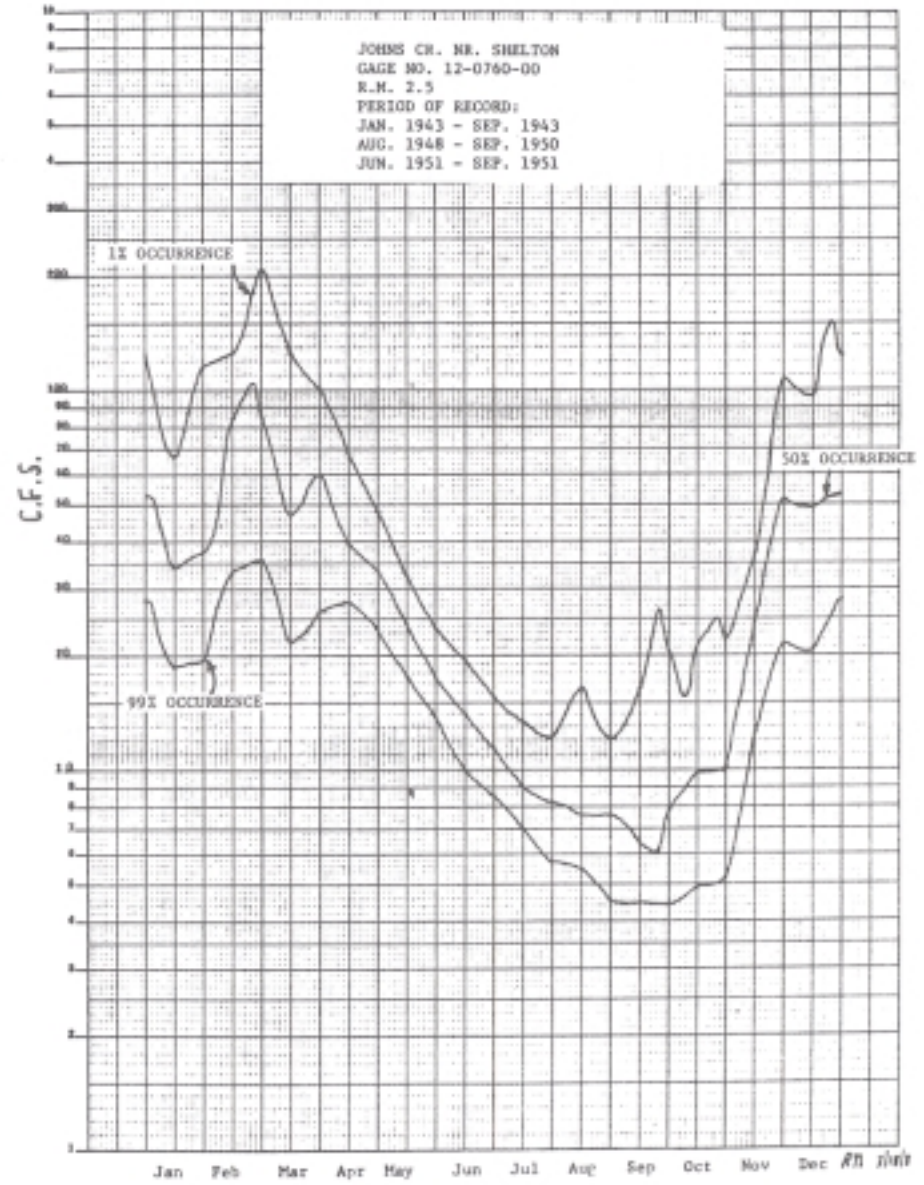
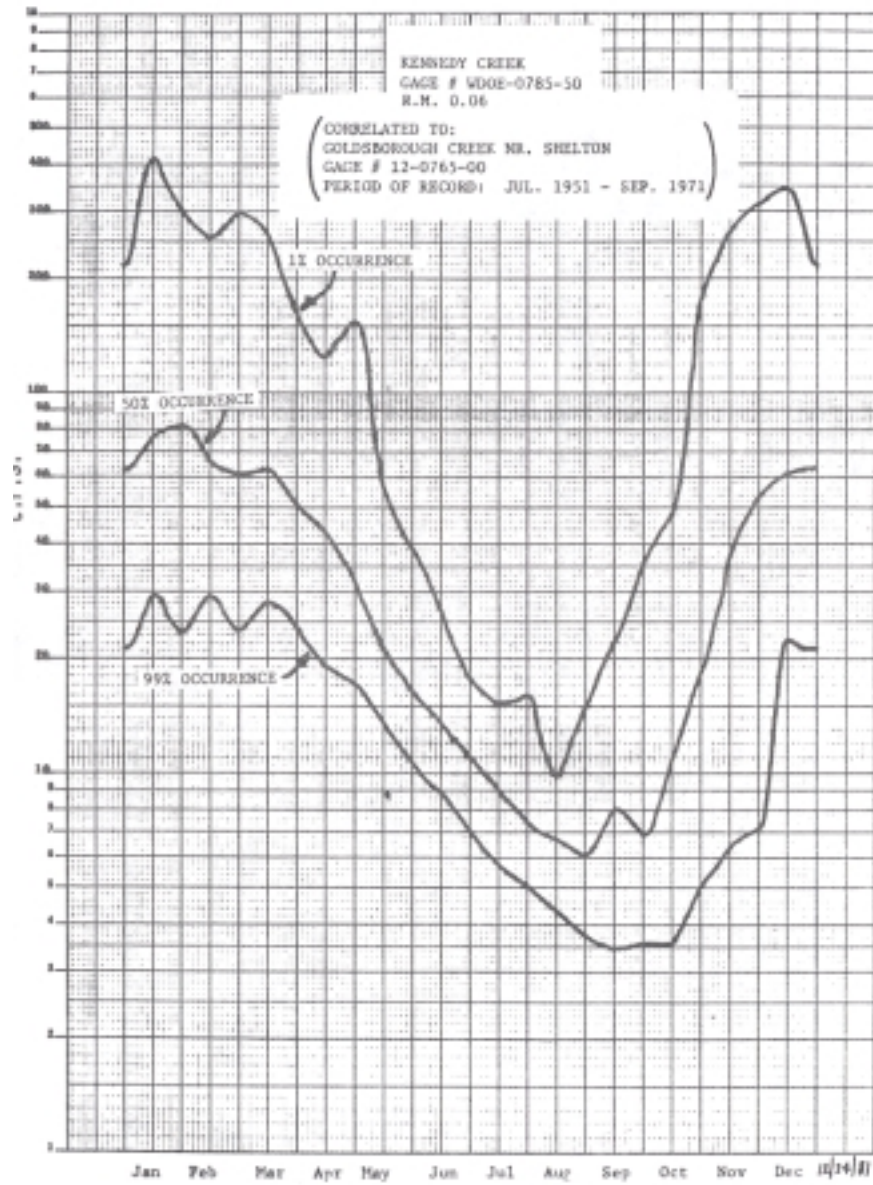


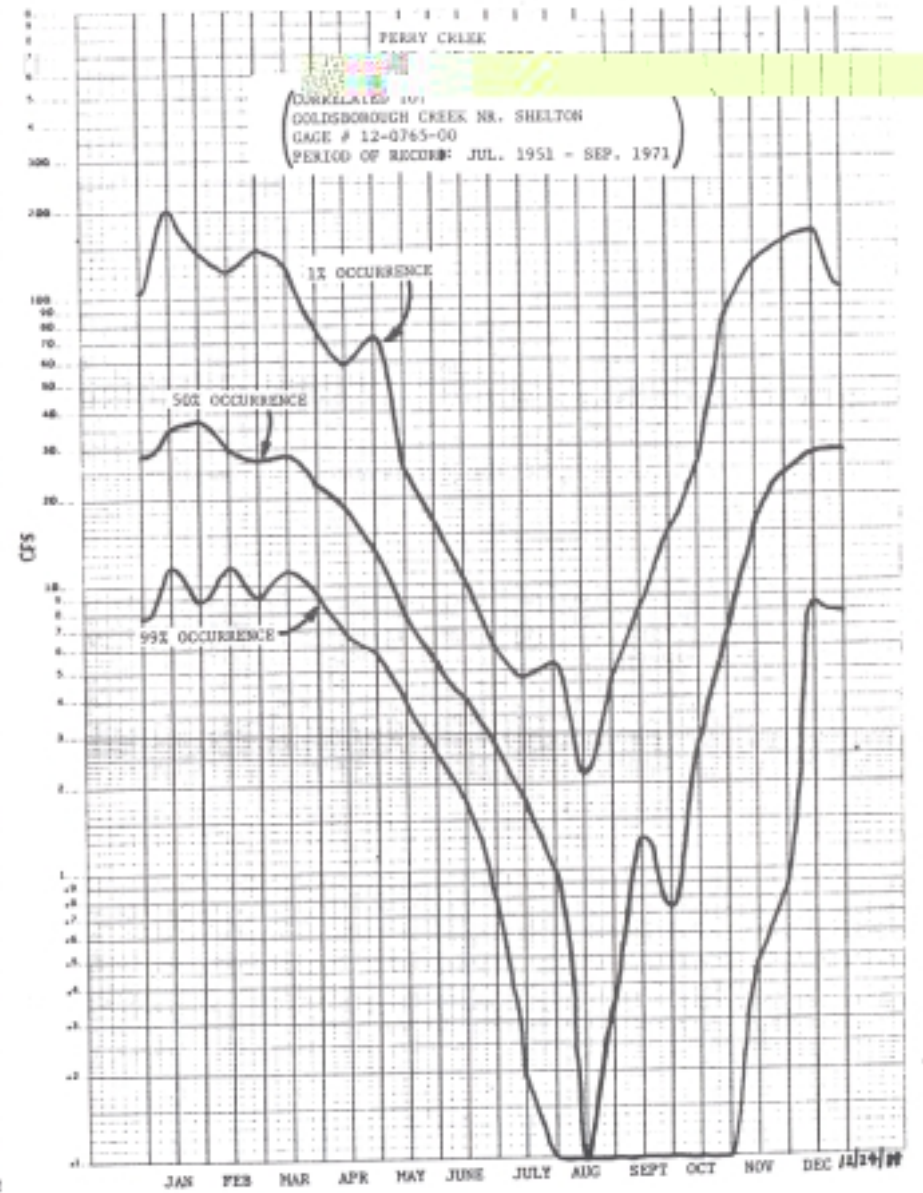
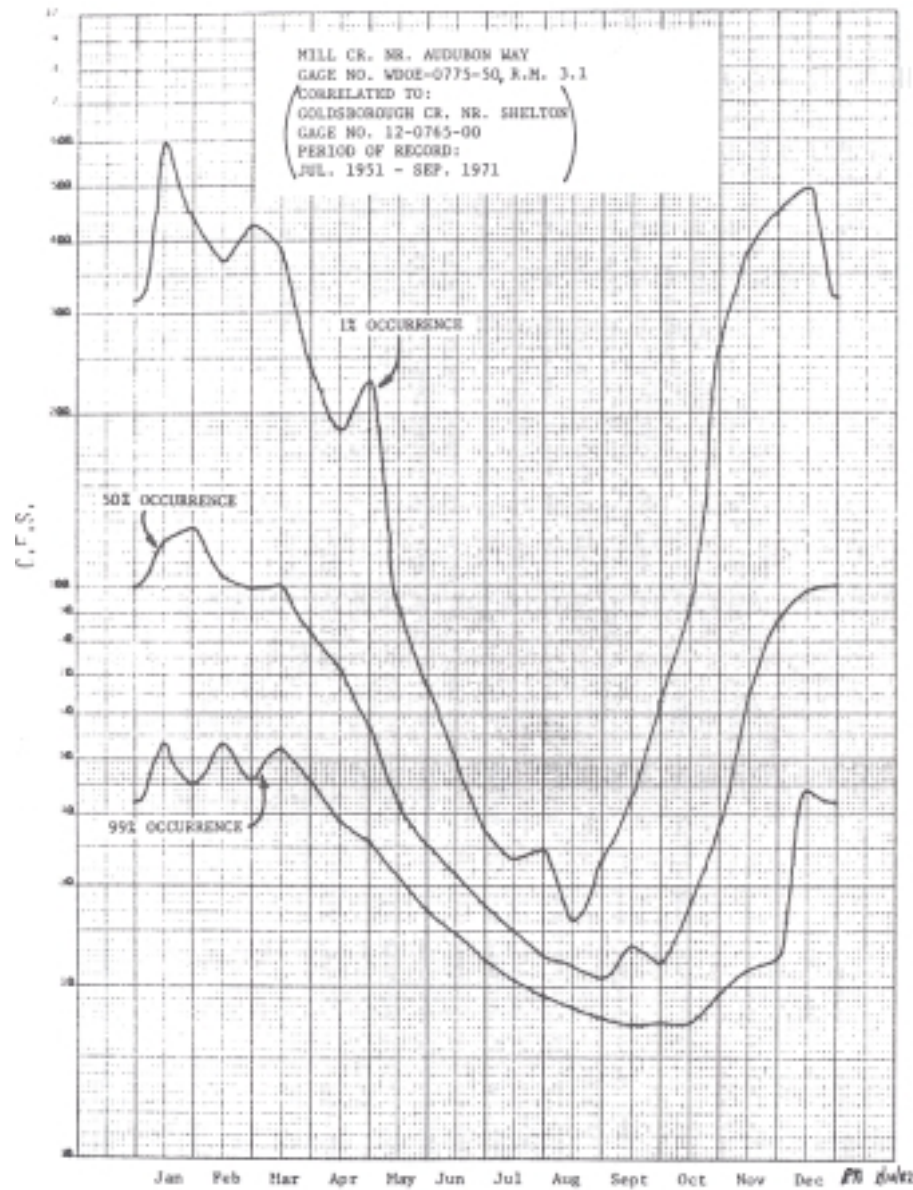


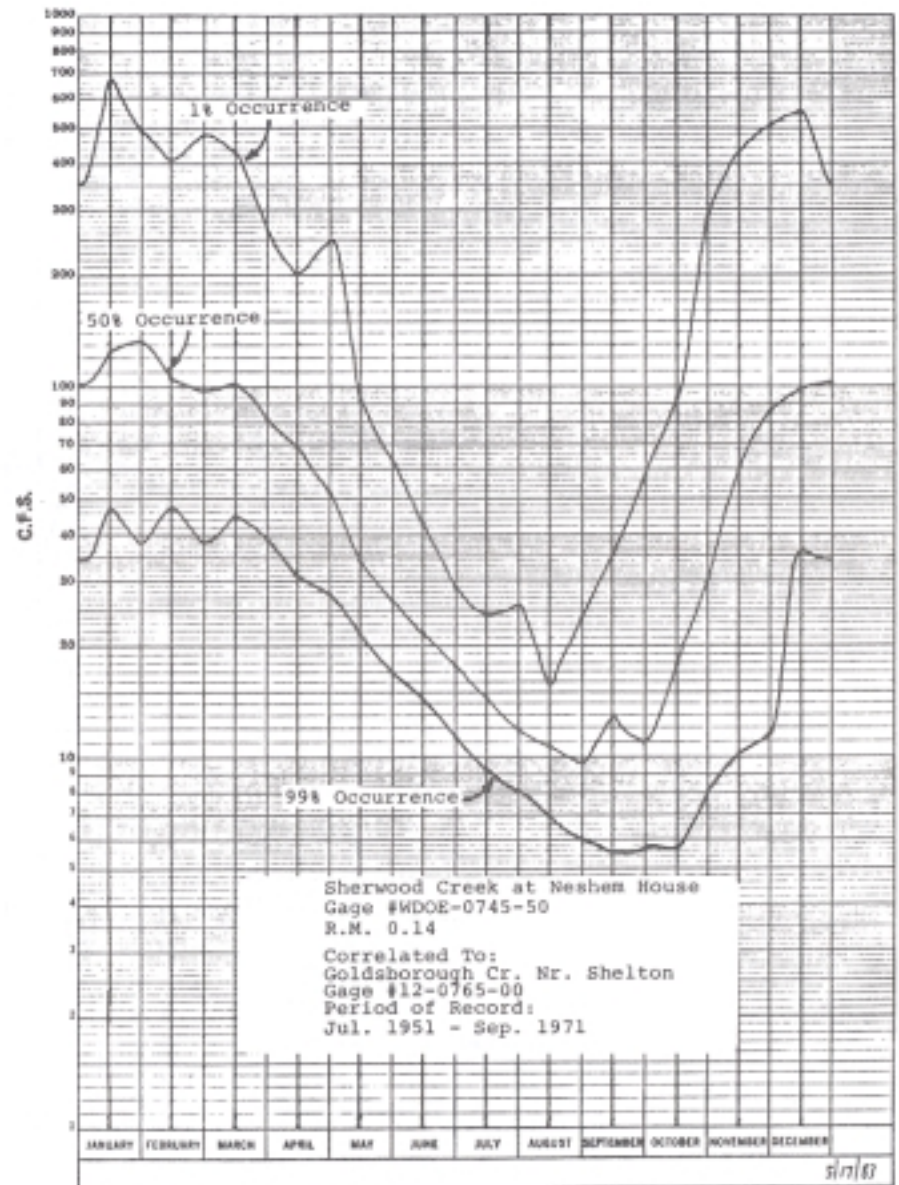
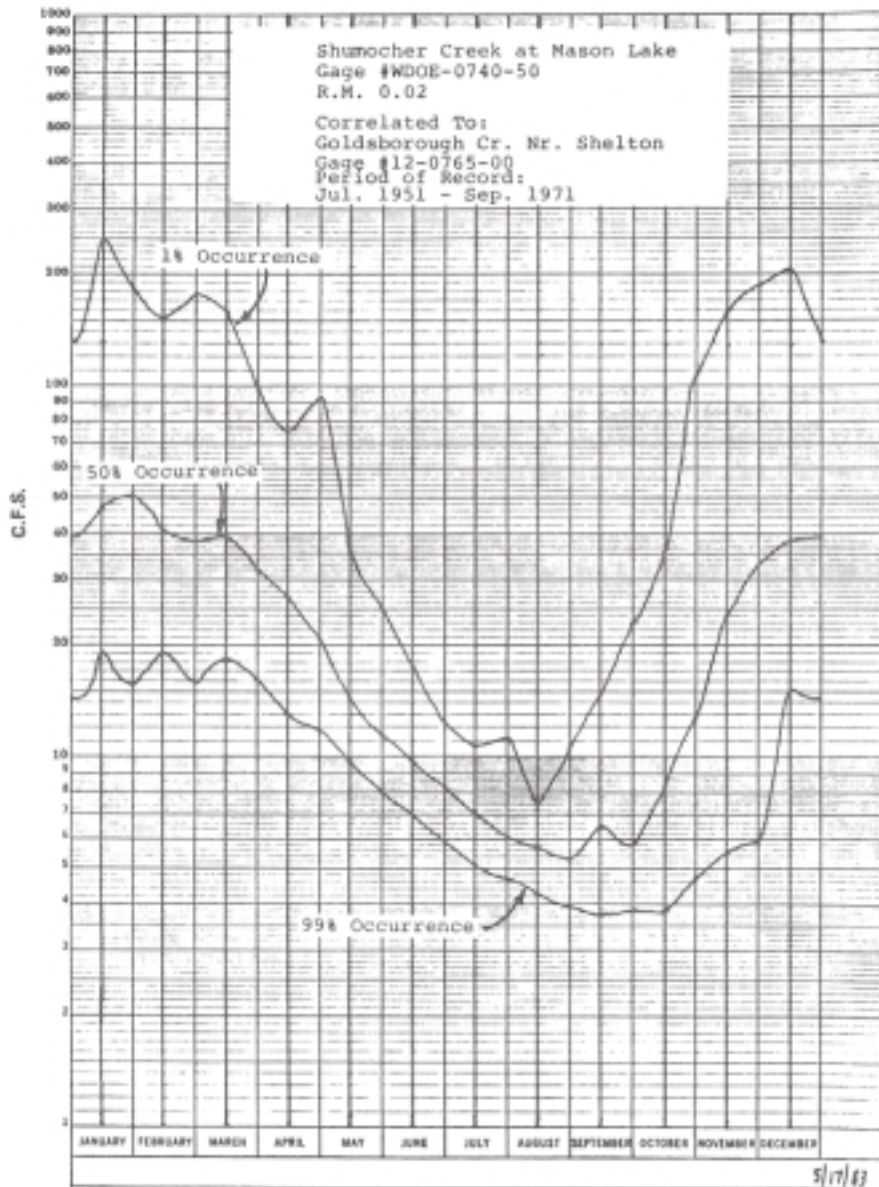
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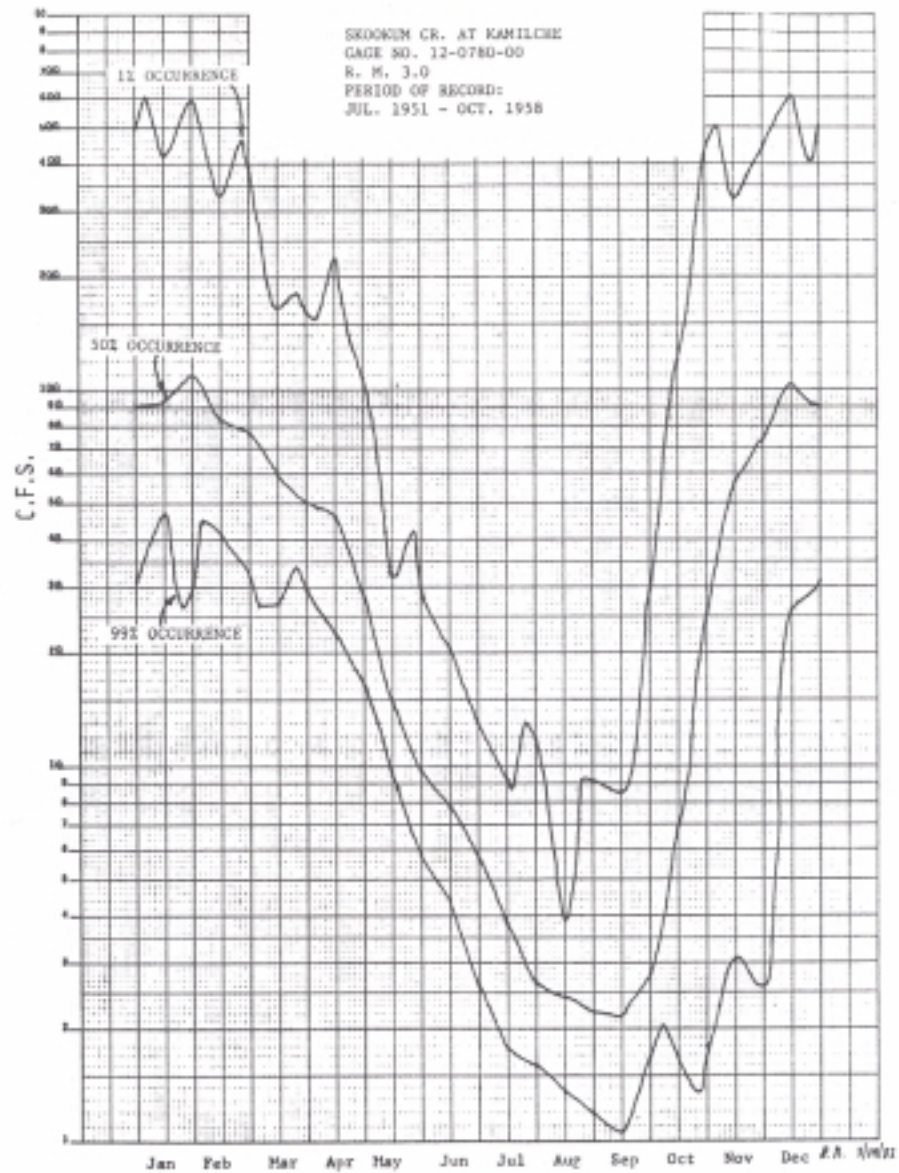


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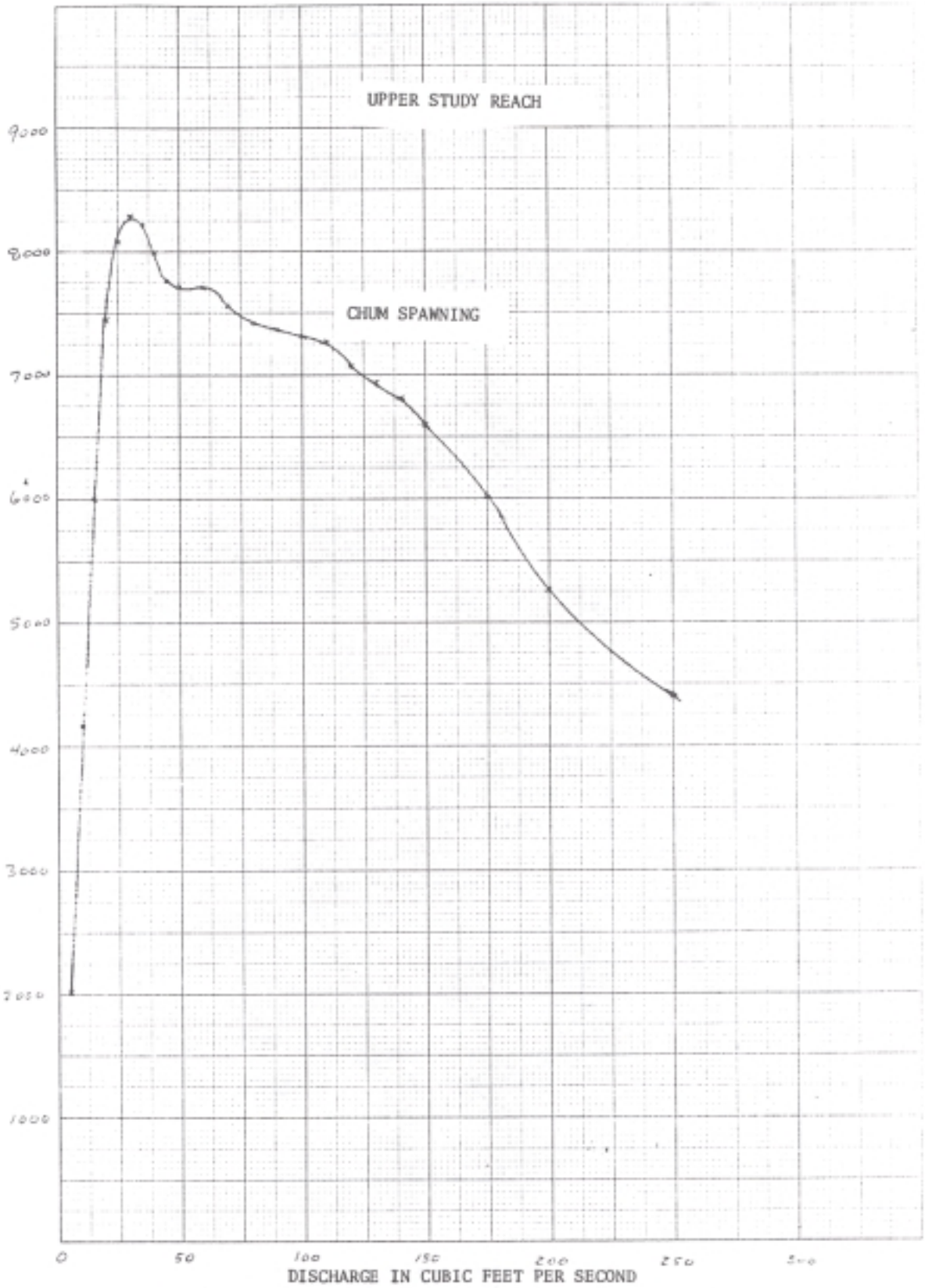




APPENDIX C

INSTREAM FLOW INCREMENTAL METHODOLOGY STUDY
GOLDSBOROUGH CREEK

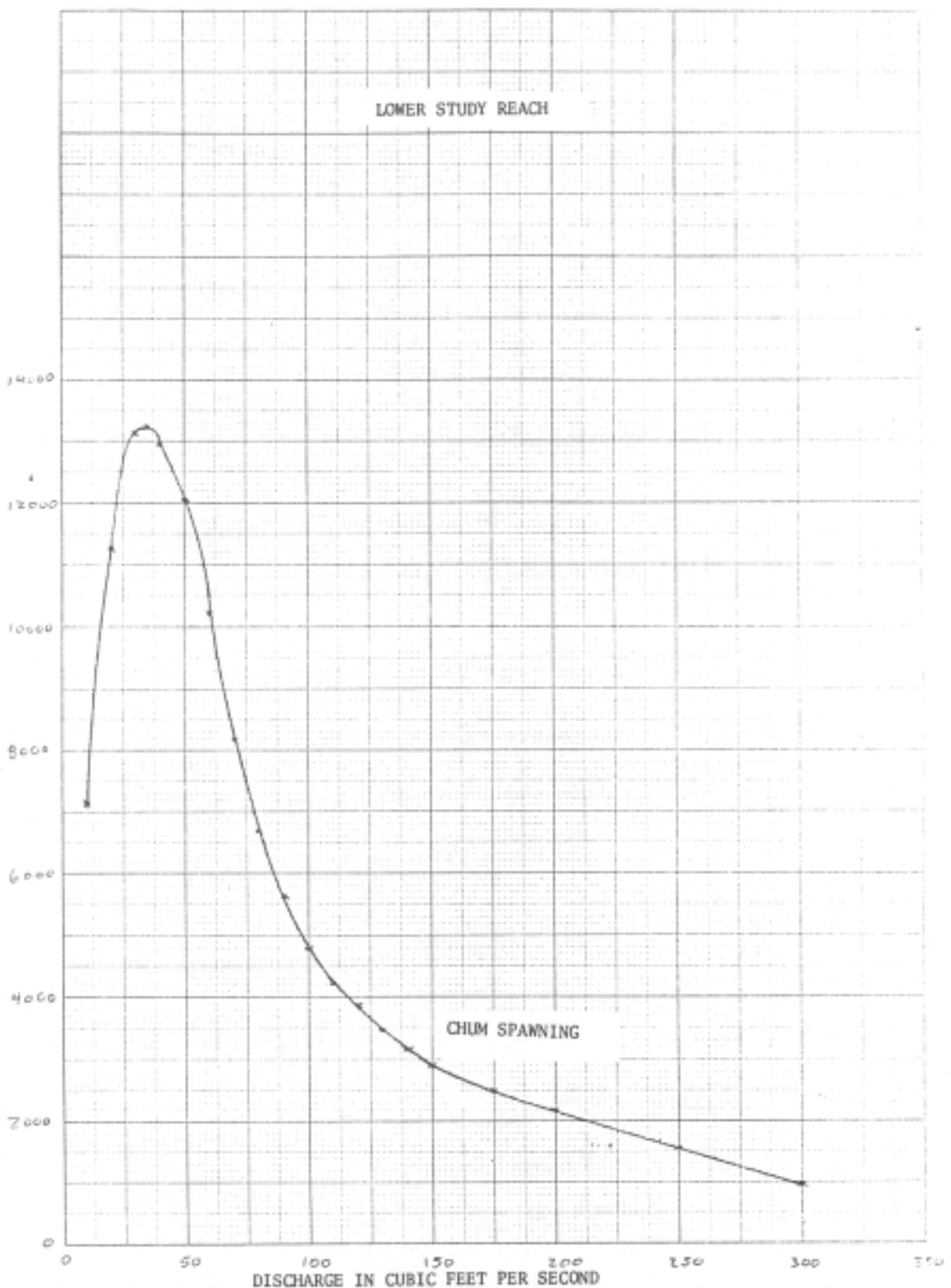
46 1242
WEIGHTED USABLE AREA - FT²/1000 FT



LOWER STUDY REACH

46 1242

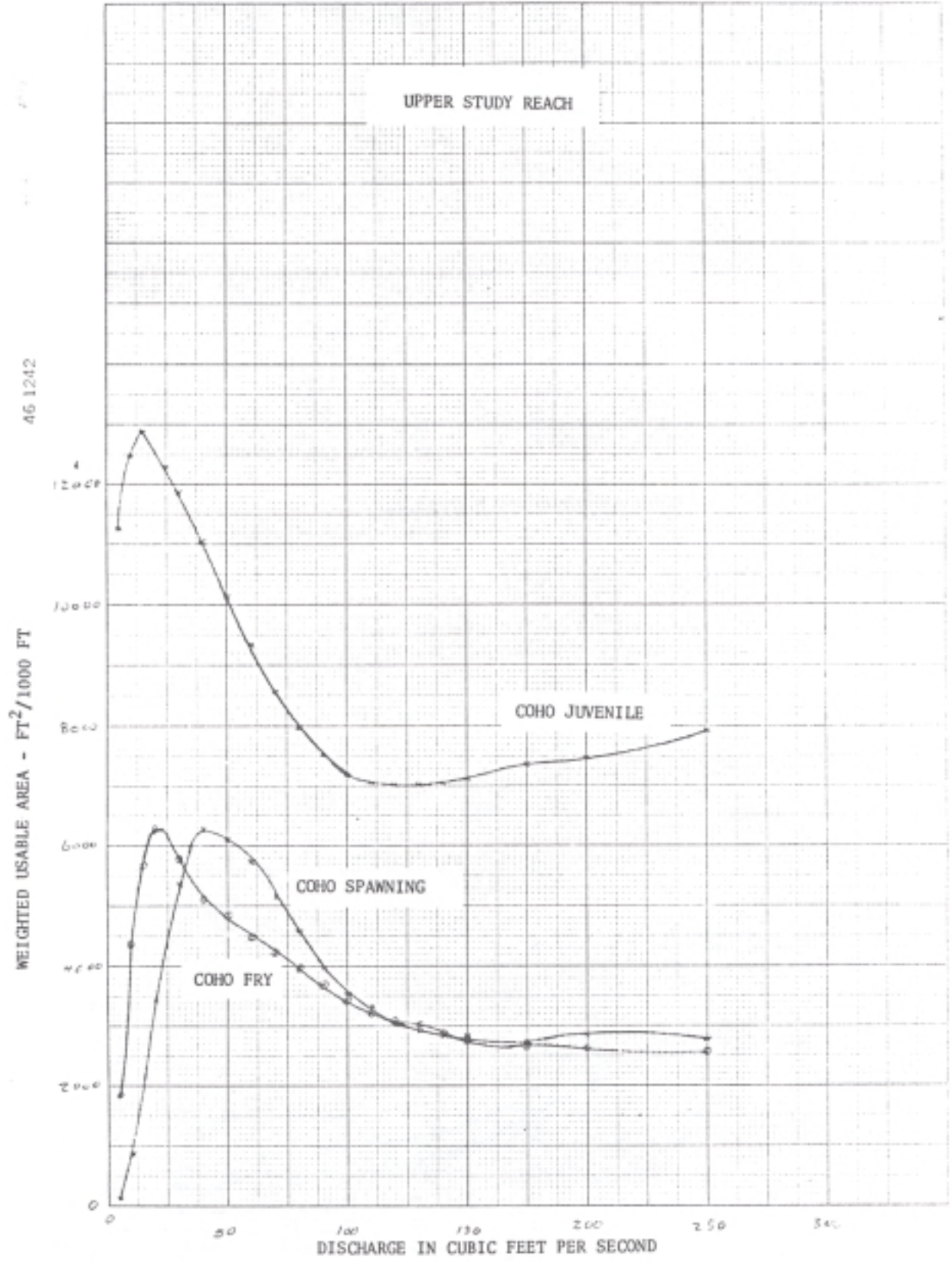
WEIGHTED USABLE AREA - FT²/1000 FT

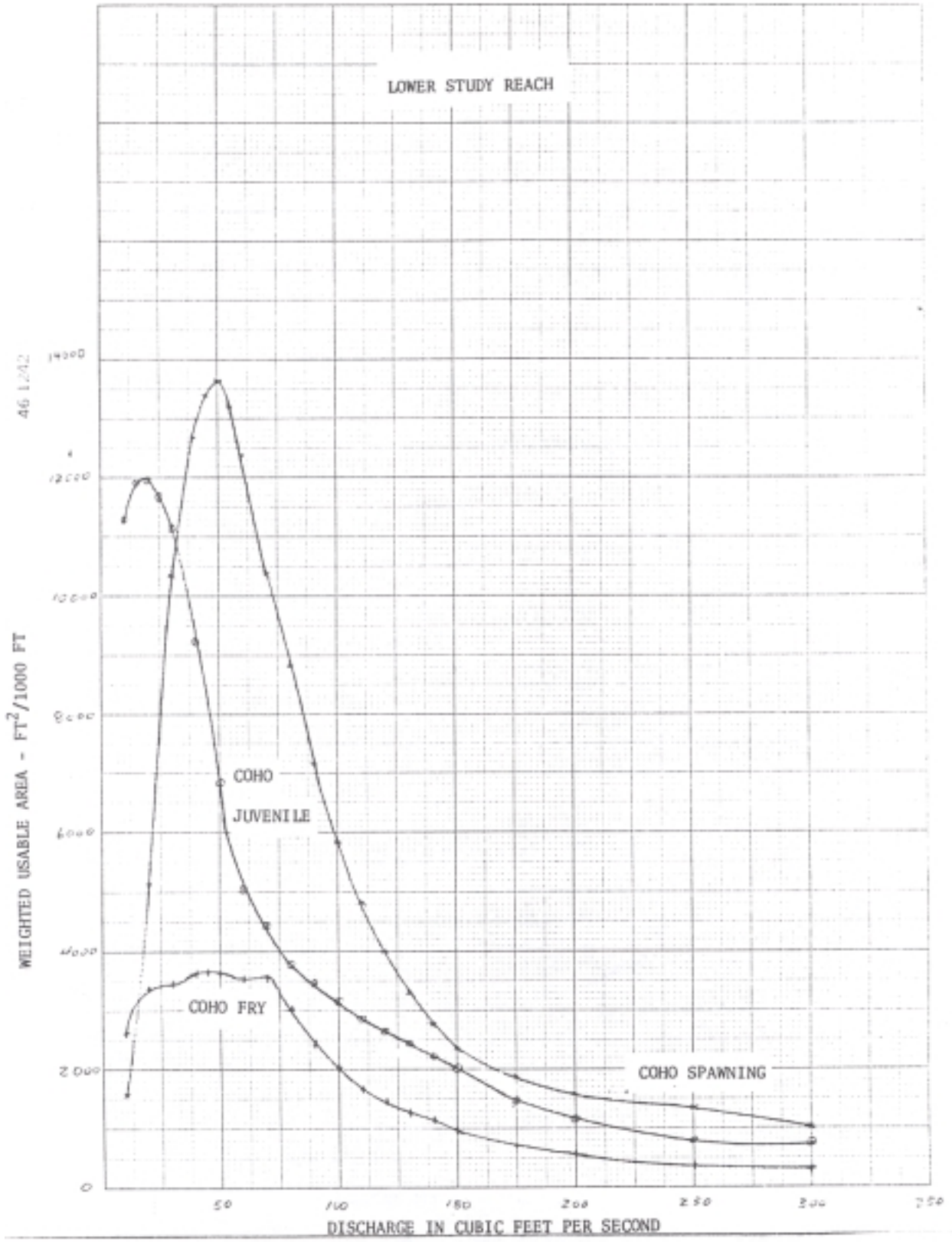


CHUM SPANNING

DISCHARGE IN CUBIC FEET PER SECOND

46 1242

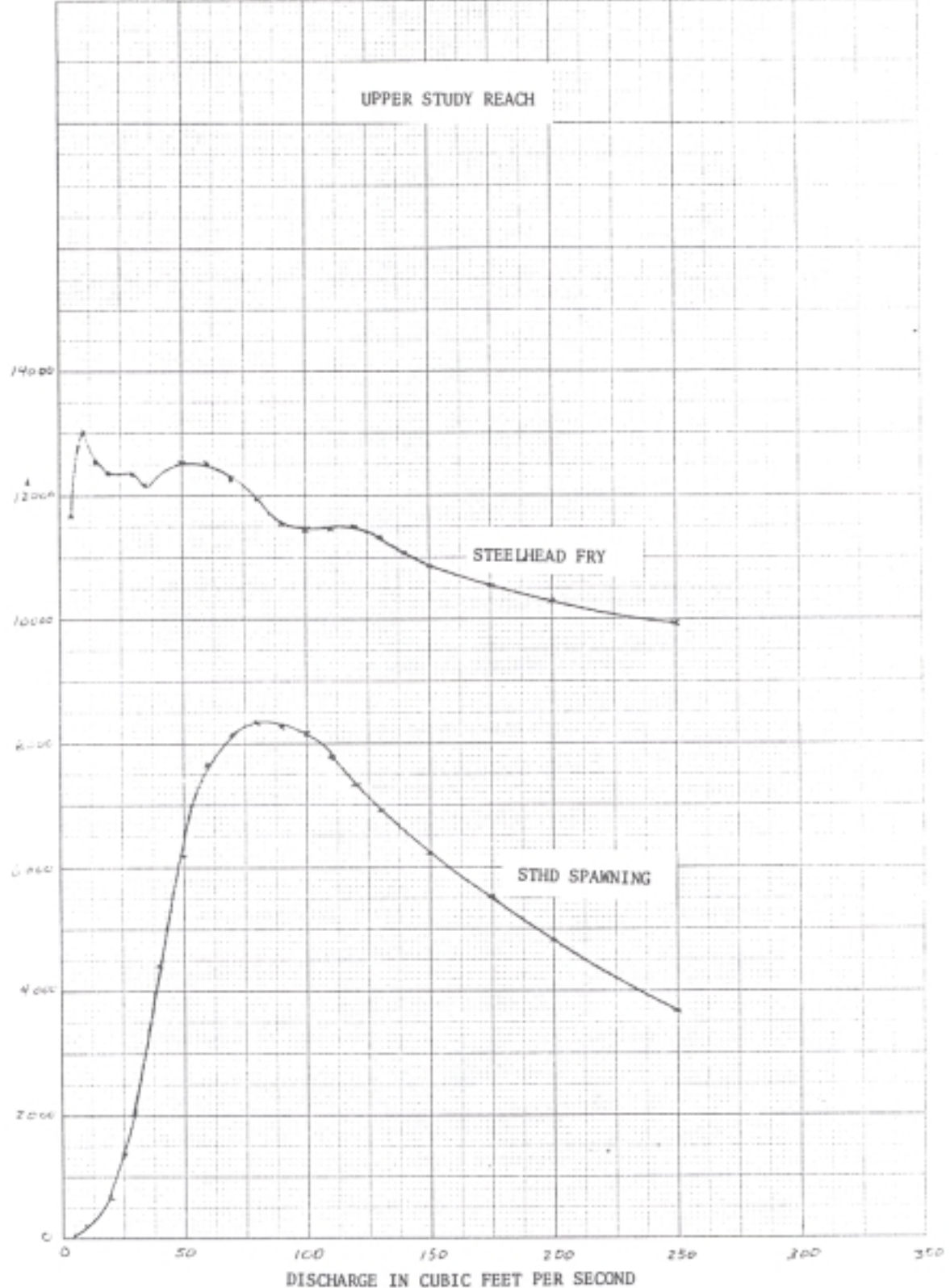




46 1242

WEIGHTED USABLE AREA - FT²/1000 FT

UPPER STUDY REACH



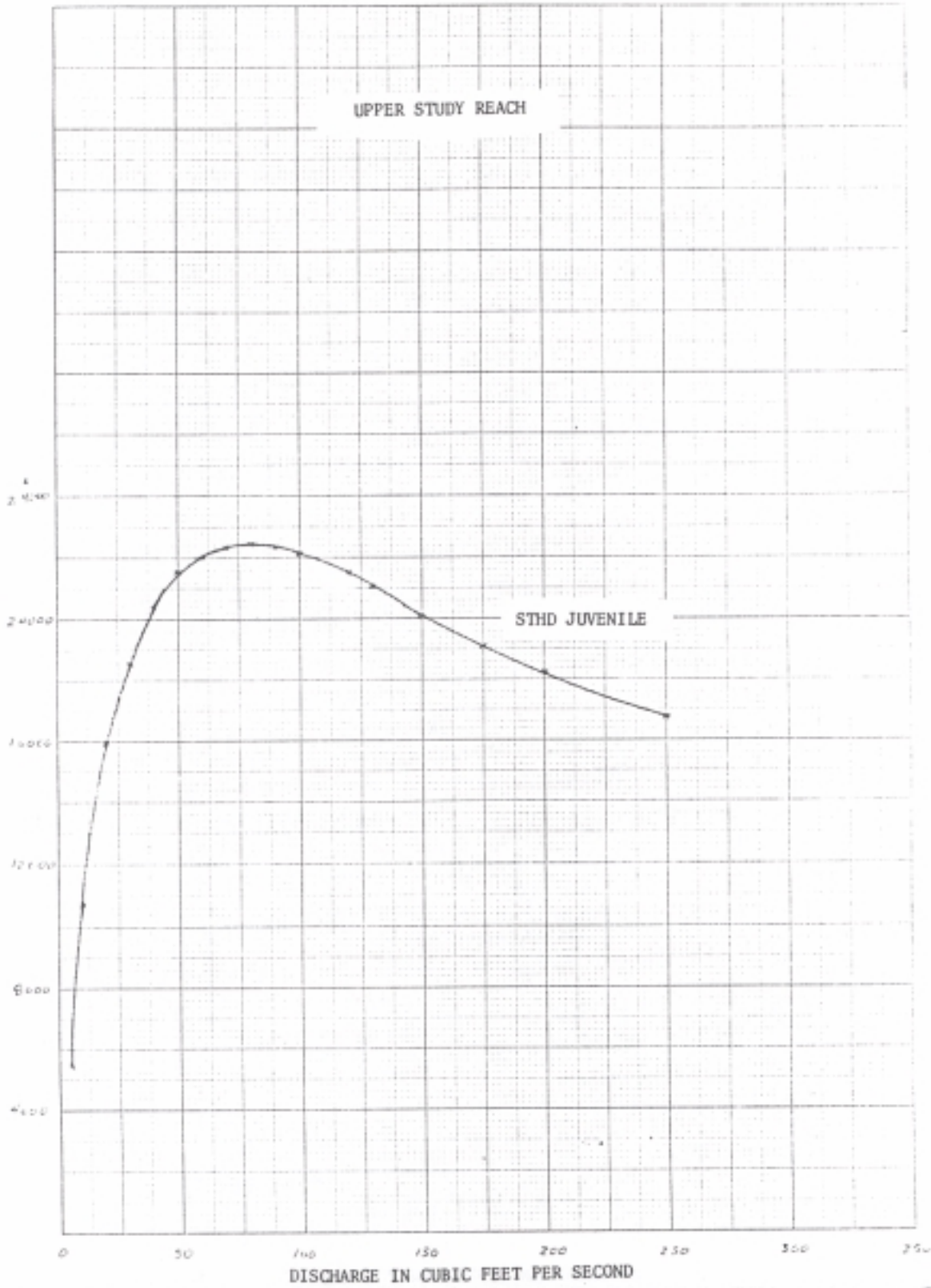
STEELHEAD FRY

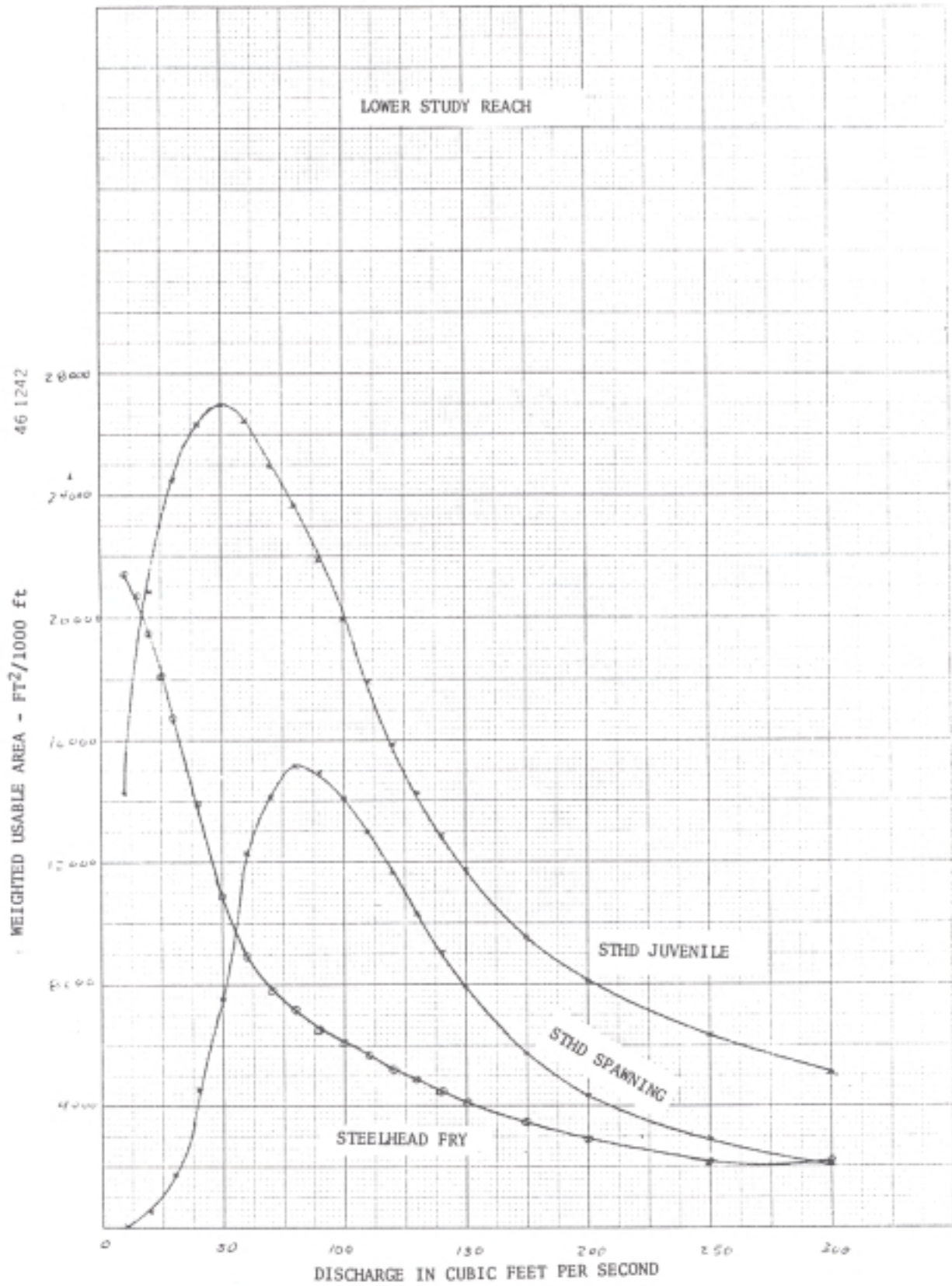
STHD SPAWNING

DISCHARGE IN CUBIC FEET PER SECOND

46 1242

WEIGHTED USABLE AREA - FT²/1000 FT





APPENDIX D

Comments and Summary of
Testimony Received at Public Hearing

JOHN SPELLMAN
Governor



STATE OF WASHINGTON
DEPARTMENT OF GAME

600 North Capitol Way, Gf-11 • Olympia, Washington 98504 • (206) 753-5700

October 10, 1983

10/19/83
[Handwritten initials]

FRANK LUKAKI
Director

Page 2
October 10, 1983

Ms. Marsha Beery
Department of Ecology PV-11
Olympia, Washington 98504

Dear Ms. Beery:

The draft Kennedy-Goldsborough Instream Resources Protection Program will be a significant program for protection of fish and wildlife habitat in Water Resource Inventory Area (WRIA) 14. This program recognizes the importance of the basin's many small streams to fish, wildlife, and recreation. It recognizes that existing summer and fall low flows already limit fish and wildlife populations in the basin. If enforced, this program will prevent additional losses of fish and wildlife that would otherwise occur because of lower low flows.

1 The Department of Game supports the proposed closures to further appropriation. We support the establishment of instream flows, but we note with concern that proposed instream flows for several streams are less than we recommend.

2 Because of the small size of many of the streams, these streams are very sensitive to any withdrawal of water. We are concerned that exempted water uses could have a significant adverse impact upon habitat in some streams. We request the Department of Ecology to monitor exempted water rights and flow in these streams.

3 Enforcement of the provisions of this program is essential to its effectiveness in protecting instream resources. We are concerned about the practicality of enforcing seasonal closures rather than year-round closures.

4 We request that the Department of Ecology actively monitor flows at all control stations and enforce provisions of this program. If enforced this program will contribute to fish and wildlife habitat protection.

Sincerely,

THE DEPARTMENT OF GAME

Hal A. Beecher
Instream Flow Biologist

HAB:mjf

cc: Region 6
Gordy Zillges, WDF
Brian Wood, Squaxin Indian Tribe

JOHN SPELLMAN
Governor



FRANK LOCKARD
Director

STATE OF WASHINGTON
DEPARTMENT OF GAME

600 North Capitol Way, Gf-11 • Olympia, Washington 98504 • (206) 753-5700

10/27/83
Statement for Public Meeting on Kennedy-Goldsborough Instream
Resources Protection Program

October 27, 1983

The Department of Game supports the draft Kennedy-Goldsborough Instream Resources Protect. Program.

This program is the result of long, careful study and consideration by the Department of Ecology. Implementation of this program will be an important step toward maintaining the fish and wildlife of this part of Mason and Thurston counties. The many small streams and estuaries of this region support an abundance of fish and wildlife. Much of the fish and wildlife depends directly or indirectly upon stream flow. Stream flow is an essential controlling factor in the production of game fish.

HB:mjf

JOHN SPELLMAN
Governor

10/19/83
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STATE OF WASHINGTON

WASHINGTON STATE PARKS AND RECREATION COMMISSION

7150 Clearwater Lane, N.Y. 11 • Olympia, Washington 98504 • (206) 753-5755

35-6550-3000 (R-410)

JAN EYSTEIN
Director

October 10, 1983

TO: Marsha Beery, Project Planner
Water Resources Planning and Management Section
Office of Water Programs
Department of Ecology
Lacey M.S. PV-11

FROM: David W. Heiser, E.P.
Chief, Environmental Coordination

RE: Kennedy-Goldsborough Instream Resources Protection Program

5 The staff of the Washington State Parks and Recreation Commission has reviewed the above-noted document and finds that it will have no effect on properties under the management or control of the Commission.

Thank you for the opportunity to review and comment.

bh

JOHN SPELLMAN
Governor



10/17/83
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STATE OF WASHINGTON

DEPARTMENT OF FISHERIES

115 General Administration Building • Olympia, Washington 98504 • (206) 753-6600 • (SCAN) 234-6600

WILLIAM R. WILKINSON
Director

October 13, 1983

Hearings Officer
Department of Ecology
St. Martins Campus
Lacey, Washington 98504

Gentlemen:

We have reviewed the draft Kennedy-Goldsborough Instream Resources Protection Program (WRIA - 14) and proposed administrative rules (Chapter 173-514 WAC). Although many of the recommended flows are less than optimum in our view, we will nevertheless accept the proposals and support adoption.

6

Our staff has been involved in many meetings with Department of Ecology (DOE) staff since the start of the Kennedy-Goldsborough program and we would like to commend the DOE staff for their efforts and resourcefulness. The proposed program and rules, if adopted, will do much to protect this basin's valuable resources. We urge DOE to adopt the program and rules as proposed in the draft document.

Sincerely,

[Handwritten signature]
William R. Wilkerson,
Director

WRW:GZ:mr



Department of Natural Resources

South Puget Sound Area
P. O. Box 68
Enumclaw, Washington 98022

BRIAN BOYLE
Commissioner of Public Lands

NOV 11 1983
U.S. MAIL

November 8, 1983

11/9/83
[Handwritten signature]

Hearings Officer
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504

Hearings Officer
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504

Dear Sir or Madam:

I have reviewed this program and endorse it with one exception. On page 23, to the list of exemptions should be added use of water for emergency fire fighting purposes. This is a very infrequent use in any one stream but when it is needed it is needed badly for protecting life and property.

Sincerely,

W. Michael Griggs
Area Manager

Kenna Hoyser
Kenna Hoyser
Mason District Manager

KH/vc

HOOD CANAL ENVIRONMENTAL COUNCIL

American Unique Heritage

P. O. BOX 87 • SEABECK, WASHINGTON 98380
Nov 11 1983

November 14, 1983

11/16/83
[Handwritten signature]

Dept. of Ecology
Mail Stop PV-11
Olympia, Washington 98504

Re: Instream Resources Protection Program

Attn: Hearings Officer:

The Board of Directors of the Hood Canal Environmental Council has reviewed the draft Instream Resources Protection Program – Kennedy Goldsborough Water Resources Inventory Area (WRIA) 14. We generally support the conclusions arrived at in the draft document, particularly in regard to the creeks entering into Hood Canal.

The primary goal of the Council has been to protect the fish and wildlife, water quality, and recreational and aesthetic values of the Hood Canal watershed. This proposal to close surface water to further consumptive uses during critical months of the year constitutes an exemplary attempt to accomplish this goal. Maintaining minimum instream flow in our streams is vital to the environmental protection of our natural resources.

It is our understanding that your department will be proposing a similar program for other streams, including the South Fork Skokomish River basin. We request that our name be placed on your mailing list to receive a copy of that draft document when it is released and any other program concerning streams in the Hood Canal watershed.

The Council sincerely appreciates the opportunity to comment on this WRIA proposal.

Respectfully submitted,

Donna M. Simmons

Donna M. Simmons, President,
Hood Canal Environmental Council
P.O. Box 126
Hoodsport, Washington 98548

PUD 3

Public Utility District 3 of Mason County
P.O. Box 480, Shelton, Washington 98584

Dennis E. Rohr, General Manager
(206) 426-8255

Commissioners
Robert C. Olson
Harvey H. Westfall
John H. Whalen

03

11/16/83
[Handwritten signature]

November 14, 1983

Washington State Department of Ecology
Marsha Beery, Program Planner
PV-11
Olympia, WA 98504

RE: Kennedy/Goldsborough Instream Resources Protection
Program (WRIA 14) Comments

Dear Ms. Beery:

The section of this draft document, Water Uses, is the focus of Mason County PUD 3's concerns. The identified consumptive uses under which hydroelectric power is categorized (page 18) is addressed as follows. "Hydropower projects are considered by WDOE to be consumptive uses when the powerhouse site is some distance downstream from the dam, creating a flow bypass area in the stream." Under the current administrative status of the draft document (page 22) is the following cite. "Of the streams inventoried in Water Resource Inventory Area 14, three are currently closed to additional consumptive appropriation, and five have instream flow limitations." Table 3, the existing surface water source limitations, indicates Goldsborough waterway to be closed to additional consumptive appropriation.

The concerns with the above wording are evident. That is, that any hydroelectric project defined as consumptive would not be allowed on any waterways that were closed to additional consumptive appropriation, without regard to or consideration of making such a project subject to specific instream flow requirements as specified by WDOE. We suggest the following changes which would correct these concerns:

(Page 18)
Hydroelectric Power

9 The bypass reach of hydropower projects will be considered by WDOE to be a consumptive use. A bypass reach is created when the powerhouse site is some distance downstream from the dam, creating a flow bypass area instream. The diversion of stream flow and the resultant lowering of flows in the bypass reach

Washington State Department of Ecology
Marsha Beery
November 14, 1983
Page 2

(Page 18)
Hydroelectric Power (Cont'd.)

could result in adverse impacts on a stream and the instream resources, especially fisheries, unless adequate minimum flows are maintained. Such instream use will be subject to specific instream flow requirements as specified by the Department for the bypass reach notwithstanding WAC 173-514-030 (1) through (3).

(Page 22)

10 Of the streams inventoried in Water Resource Inventory Area 14, three are currently closed to additional consumptive appropriation, and five have instream flow limitations. Hydroelectric projects are exempt from such closures but are subject to specific instream flow requirements as specified by the Department for the by-pass reach notwithstanding WAC 173-514-030 (1) through (3).

(Page A-6)
WAC 173-514-030 (5).

11 Projects that would reduce the flow in a portion of a stream's length (e.g., hydroelectric projects that bypass a portion of the stream) will be subject to specific instream flow requirements as specified by the Department for the bypassed reach notwithstanding WAC 173-514-030 (1) through (3). The Department may require detailed project-specific instream flow studies to determine a specific instream flow for the bypassed reach.

Mason County PUD No. 3 appreciates the opportunity to comment on the draft Kennedy/Goldsborough Instream Resources Protection Program and hopes that these comments are of value when WDOE finalizes the WRIA 14 document.

Sincerely,
Richard L. Thompson
Richard L. Thompson
Manager of Power Supply

RLT:jw

cc: Dennis E. Rohr, General Manager



SQUAXIN ISLAND TRIBE

WEST OF HR. 111 AT 100
SHELTON, WASHINGTON 98584
(206) 426-9781

11/17/83
[Handwritten Signature]

November 17, 1983

Mr. Henry Yates, Hearing Officer
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504

Dear Mr. Yates:

The Squaxin Island Tribe would like to comment on the draft Kennedy-Goldsborough Instream Resources Protection Program. The Tribe was involved in the IFIM and other streamflow studies conducted to determine historical and current flow conditions of the streams within the Kennedy-Goldsborough basin. We were also involved in negotiations with the Department of Game (WDG), Department of Fisheries (WDF) and the Department of Ecology (DOE) concerning the flow levels required by the fish resources within each stream.

The Squaxin Island Tribe supports the DOE's efforts to establish stream closures and minimum flows to protect instream resources. We consider this to be essential to protect these resources from further depletion due to man's increasing use of the available water. However, the Tribe has serious concerns about the procedure used by DOE in the selection of minimum flows, and the exemptions permitted to proposed closures.

DOE's criteria for establishing minimum flows evidently is that the flows must be at the 50% probability level of occurrence, regardless of the recommendations of those agencies (including Indian Tribes) responsible for the management of fish resources. The proposed minimum flows are not the optimum flows for fish but are a compromise that provides some measure of fish protection yet allows for further utilization by man.

DOE also proposes an exemption in WAC 173-514-060 which concerns us. Although the proposed language addresses the cumulative impacts of numerous single domestic diversions, we feel that it will be difficult to determine when a significant effect will occur in advance of it becoming a problem unless specific levels are established. More importantly, the Tribe feels that ANY surface water withdrawal will impact instream resources and there should be no exemptions for single domestic or stockwatering use during closures.

The Squaxin Island Tribe initially submitted proposed flows that were totally inappropriate and were revised as the agencies involved discussed habitat needs and conducted field reviews. The flows discussed at the July 25th meeting of DOE, WDF, WDG, and the Tribe (which should be included in the final report) reflect the fisheries management agencies COMPROMISE proposal. However, the Tribe now recognizes that the instream resources and the Tribe's welfare are inextricably tied and that a compromise on the quantity and quality of the spawning and rearing habitat of salmon and steelhead is a compromise of the Tribe's treaty rights and is not in the best interests of the Tribe.

Consequently, the Squaxin Island Tribe objects to the use of less than the optimum flows for anadromous fish for minimum instream flows, and the exemption for future single domestic and stockwatering uses as proposed in the draft. We submit that these proposed actions will be contrary to the legislative mandate to protect instream resources as specified in RCW 90.22.010 and RCW 90.54.020(3a) as they will result in the further decline of salmon and steelhead resources and consequently cannot be considered adequate protection measures.

Sincerely,

[Handwritten Signature]
David H. Whitener
Tribal Chairman

cc: Marsha Berry, DOE
Dennis McDonald, NWIFC
Hal Beecher, WDG
Gordon Zilgas, WDF

DW/BW/VC

Summary of Public Hearing Comments

October 27, 1983

The following is a summary of oral comments made at the 7:00 p.m. public hearing, Shelton Middle School, Shelton.

1. Robert Turner, with the Department of Fisheries, restated the comments made in the October 13, 1983 letter that the WDF supports adoption of the program.
2. Hal Beecher, with the Department of Game, stated that implementation of the program will be important to maintaining fish and wildlife in WRIA 14. (See written statement, pg. D-2.

We want to thank Mr. Turner and Mr. Beecher for their supportive comments.

APPENDIX E

Responses to Comments

1. We feel that the flow levels originally recommended by the Department of Game (WDG) are in excess of those contemplated under statutory guidelines (Chapter 90.22 and 90.54 RCW). We believe the proposed instream flow levels in this program are adequate to protect and preserve instream resources, especially the anadromous fish resource. If future information indicates that adopted instream flows are not adequate, then they can be amended during the review period which will occur once in every five years.
2. Existing water rights are statutorily exempted by the Water Resource Act of 1971, Chapter 90.54 RCW, which authorizes the statewide Instream Resource Protection Program. Noncommercial stockwatering and nonconsumptive uses should have little if any effect on stream flows. In the course of its normal investigation of water right applications for single domestic uses, our Southwest Regional Office will consider the cumulative impacts of such diversions. Where instream flows would be significantly affected, permits may be granted for in-house use only if no alternative source of water is available. Also, the Department of Ecology (WDOE) is required by statute to request recommendations from WDG as well as the Department of Fisheries (WDF) on water right applications for all uses including those that are exempt. Both WDG and WDF have an opportunity to make comments or voice their concerns during this review process.
3. We believe that a seasonal closure will not be impractical to enforce because any consumptive water rights provisioned with the closure will only be expressly permitted during the nonclosed portion of the year. WDOE will monitor the stream flows and water rights, and enforce the regulations to the best of its ability. Seasonal closures are proposed because water is available for appropriation in excess of existing rights and minimum flow needs during the remainder of the year.
4. Within the limits of practicality, WDOE will be monitoring stream flows and enforcing provisions of the program. It is our intent to install staff gages at appropriate control points. The standard operating procedure for WRIA 14 will specify procedures for monitoring flows and regulating water rights. Although our Southwest Regional Office field personnel are regularly in WRIA 14, they may not necessarily be there during periods when flows are below levels adopted in the regulation. Adoption of these rules is also not intended to preclude the responsibilities of other agencies or interested persons from contacting our Southwest Regional Office who will take the necessary regulatory measures.
5. We want to thank you for responding to the Kennedy-Goldsborough program.
6. We want to thank you for your comments supporting the Kennedy-Goldsborough program.
7. Water use for emergency fire protection has not been included in the list of exemptions since it is an understood priority use necessary to protect the public welfare. A permit, however, should be secured from our regional office if tankers are being filled when there is no emergency, e.g. construction or dust control use. Both WDF and WDG need to be

consulted as to their requirements for fishery resource protection. WDOE encourages the DNR to withdraw water from streams which have not been closed or have ample water.

8. Thank you for your comments supporting the Kennedy-Goldsborough program. Your name has been placed on the mailing list for the Skokomish-Dosewallips Instream Resources Protection Program.
9. Thank you for your comments on the program. Your concerns have been considered and the appropriate changes made. Please refer to pages 18 and 23 of the program document and A-6 of the rules.
10. See response #9.
11. See response #9.
12. WDOE's criteria for establishing minimum flows is not that flows must be at the 50 percent exceedance level since in several instances flows proposed in the program are greater than this exceedance level (i.e., Kennedy Creek flows for October and November). WDOE does use the 50 percent exceedance level (a flow that is available on the average of 1 out of 2 years on a given day of the year), however, as a general criteria in determining the maximum acceptable instream flow levels. The statutes under which our department undertakes this activity require that minimum flows (RCW 90.22.010) and base flows (RCW 90.54.020(3)(a)) be retained instream. We strongly believe that the legislative intent in the passage of these statutes was to prevent streams from being dried up by diversions or reduced to levels deleterious to existing fisheries or other instream values, and not to establish optimum flow conditions. Optimum flows such as those recommended by WDF, WDG, and the Squaxin Island Indian Tribe (in the July 22 meeting) which far exceed the 50 percent probability of occurrence level are considered by WDOE to be in excess of those necessary for protection and preservation of the instream resource as mandated by the Legislature.

In reference to your statement, ". . . regardless of the recommendations made of those agencies (including Indian tribes) responsible for management of fish resources," WDOE did consider the recommendations of the fishery resource agencies including the Indian tribe as well as other entities. WDOE gave careful consideration to these recommendations and, in fact, closed to further consumptive appropriations a number of streams in WRIA 14 as a result of these recommendations.

13. We disagree that it will be difficult to determine when a significant effect will occur. The water resource management staff in the Southwest Regional Office (SWRO), which administers the water right program in WRIA 14, is very familiar with this area and knows where potential problems could develop. Prior to issuing a water right for domestic use, the staff at the SWRO will consider the potential cumulative effects of that action. In addition, the department, as a general policy, encourages the use of ground water for domestic supply in the interest of resource protection and health.

Prior to issuance of a water right, the WDOE is required to solicit recommendations from WDF and WDG. In addition, we can, upon request, provide the tribe with copies of all water right applications including domestic use and encourage WDF, WDG, and the tribe to comment on these applications.

We disagree with the statement that any withdrawal will impact instream resources. While it seems rational that any water taken from a stream will cause some impact, the degree of this impact to the point of being adverse to the resource depends on many other factors such as the particular stream dynamics, the size of the stream, the amount of water being withdrawn, and the season water is withdrawn, etc. In the case of domestic use or stockwatering use, the quantities requested are minimal; generally, .02 cfs or less, and impacts on instream flows are not measurable. In cases where the cumulative effects of single domestic use could be a problem, the SWRO staff will make its determination and decide whether or not to grant the permit at all or permit in-house use only if no alternative source is available.

14. WDOE staff have met with Squaxin Island Indian Tribe representatives on numerous occasions during the planning phase of this program. Tribal representatives were present on two field trips, May 31 and June 17, 1983, and at meetings held May 26, July 12, July 22, and September 8, as well as in attendance at the public hearing October 27, 1983. The recommendations presented to WDOE by WDF, WDG, and the Squaxin Island Indian Tribe representative at the July 22 meeting were considered by WDOE to be the fish resource agency final recommendations and were used as a basis for the proposed actions in the draft report. While it is the prerogative of the Squaxin Tribe to change its recommendations at this point, it should be emphasized that WDOE staff has made every effort to involve the tribe in development of the program and afforded it every opportunity to make input to the proposed actions prior to issuance of the draft. WDOE believes that the actions proposed will protect and preserve the instream resources of WRIA 14 in accordance with state law.
15. WDOE believes that the proposed actions are within the intent of the legislative mandate set forth in Chapters 90.22 and 90.54 RCW to provide for protection and preservation of instream resources.