BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-90-8

IDAHO POWER COMPANY

EXHIBIT 1

UBC 162 124

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Twin Falls Canal Company,
North Side Canal Company, Ltd.,
Idaho Power Company

Project No. 2899-006
Idaho

ORDER APPROVING TRANSFER OF LICENSE

(Issued May 2, 1989)

Twin Falls Canal Company, and North Side Canal Company, Ltd. (Transferors), seek Commission approval to add Idaho Power Company (IPC) as a co-licensee for their license for the Milner Hydroelectric Project, to be jointly known as the Transferees. The project is located on the Snake River in Twin Falls, Cassia, Jerome, and Minidoka Counties, Idaho. The license transfer is necessitated to effectuate the existing contractual relationship between the transferors and IPC.

The transferors have fully complied with the terms of the license and agree to pay annual charges that have accrued to the date of the transfer. The transferees are qualified to hold the license and operate the property under license and agrees to be bound by the license as if it were the original licensee.

No motions to intervene, comments, or protests were filed in response to the public notice of the application to transfer the license. Transfer of the license for this project is consistent with the Commission's regulations and is in the public interest.

The Director orders:

(A) Transfer of the license for this project is approved.

(B) Approval of the transfer is contingent upon transfer of the title of the properties under license and delivery of all license instruments to the transferees, which shall be subject to all terms and conditions of the license as though it were the original licensee. The transferees shall submit certified copies of all instruments of conveyance within 60 days from the date of this order.

DC-A-5

(C) This order is issued under authority delegated to the Director and is final unless appealed to the Commission within 30 days from the date of this order. The transferees shall acknowledge acceptance of this order and its terms and conditions by signing and returning the attached acceptance sheet within 60 days from the date of this order.

Dean L. Shumway
Director, Division
of Project Review

Project No. 2899-006

IN TESTIMONY of its acknowledgement of acceptance of this order and its terms and conditions, Twin Falls Canal Company, North Side Canal Company, Ltd., and Idaho Power Company this 13th day of June, 1989 have caused their names to be signed hereto by their presidents, and attested by JOHN A. ROSHOLT

By Robert Turkett
PRESIDENT--TWIN FALLS CANAL COMPAN

By Russell Woolley
PRESIDENT--NORTH SIDE CANAL COMPAN

By
PRESIDENT--IDAHO POWER COMPANY

Attest:

JOHN A. ROSHOLT

(Executed in triplicate)

EXHIBIT 1
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PACKWOOD, IPCO
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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Martha O. Hesse, Chairman;
Charles G. Stalon, Charles A. Trabandt,
Elizabeth Anne Moler and Jerry J. Langdon.

Twin Falls Canal Company)
North Side Canal Company, Ltd.)

Project No. 2899-003

ORDER ISSUING LICENSE
(Major Project)

(Issued December 15, 1988)

On July 27, 1984, the Twin Falls Canal Company and the North Side Canal Company, Ltd. (CC) filed a joint application for license under Part I of the Federal Power Act (FPA) to construct, operate, and maintain the Milner Hydroelectric Project No. 2899, to be located at the existing Milner Dam and Twin Falls Main Canal on the Snake River in Twin Falls, Cassia, Jerome, and Minidoka Counties, Idaho. Parts of the project would occupy lands of the United States managed by the Bureau of Land Management (BLM) of the Department of the Interior. The project would consist of the Milner Dam and Reservoir, modifications to 6,500 feet of the Twin Falls Main Canal to increase its capacity, a control structure on the canal that would divert the additional flow into a forebay, a penstock, a powerhouse located on the irrigation canal 1.6 miles downstream of the dam and containing a single generating unit rated at 43,650 kilowatts, and a 1.4-mile-long transmission line.

Notice of the application has been published. The Idaho Department of Fish and Game (IDFG) and the Idaho Department of Water Resources (IDWR) became intervenors in the proceeding. The motions to intervene and comments filed by agencies and individuals have been fully considered in determining whether to issue this license. The issues raised by the intervenors are discussed below.

I. Dam Safety and National Environmental Policy Act Compliance

The Commission currently is in the process of preparing an environmental impact statement (EIS) assessing, inter alia, the potential cumulative impacts of the Milner Project No. 2899 and three other proposed hydroelectric projects on the environmental resources of the Snake River Basin. A draft EIS (DEIS) was

issued in November 1987. 1 Due to new circumstances and new information received after the DEIS was issued, a Notice of Intent to Prepare a Supplement to the DEIS and to hold public meetings was issued on July 15, 1988; public meetings were held in Twin Falls, Idaho, on August 19, 1988. At these meetings, CC informed the Commission that there was a serious concern for the structural integrity of the 85-year-old Milner Dam and that failure of the dam during the irrigation season could result in near total crop failure on the 440,000 acres served by the dam. 2

Following a meeting with CC and an inspection of Milner Dam, the Commission's Division of Dam Safety and Inspections concluded that there is a high risk of failure at the Milner Dam in the event of a seismic event (earthquake). A complete dam failure could lead to partial or total crop failure, since such a failure would prevent diversion of water into the irrigation canal.

CC intends to use the revenues from the sale of electric power to be generated by the project to obtain the funds necessary to strengthen Milner Dam and upgrade its spillway. CC states that, absent these revenues, funding repair of the dam would result in severe economic hardship to many of the 7,500 CC shareholders who depend on irrigation waters from Milner Dam for their livelihood. According to CC, having the shareholders bear the total cost of repairs could cause some shareholders to lose their farms and would cause significant adverse impacts to a local economy that is already suffering the effects of the general economic problems of the farming industry.

The final EIS (FEIS) for the four projects on the Snake River is not expected to be completed until late summer or early fall of 1989. Thus, waiting for completion of the FEIS before action on the license application for Project No. 2899 could cause a delay of up to two years in starting the repair of Milner Dam, during which time there would be a risk of dam failure. If a license for the Milner Project is issued at this time, the necessary financing and other arrangements could be made so as to complete the dam repairs in one year or less.

1
Draft Environmental Impact Statement for the Twin Falls (FERC No. 18), Milner (FERC No. 2899), Auger Falls (FERC No. 4797), and Star Falls (FERC No. 5797) Hydroelectric Projects on the Mainstem Snake River, Idaho, Federal Energy Regulatory Commission, Washington, D.C., November 1987.

2
See the attached Safety and Design Assessment (S&DA) for a more detailed description of the dam safety concerns regarding this project.

Council on Environmental Quality (CEQ) regulations implementing the procedural provisions of the National Environmental Policy Act (NEPA) state that, where emergency circumstances make it necessary to take an action with significant environmental impacts without following CEQ regulations (e.g., without first preparing an FEIS), the agency taking the action should consult with CEQ regarding alternative arrangements. Such arrangements are to be limited to actions necessary to control the immediate impacts of the emergency. 3 Pursuant to CEQ's regulations, the Commission consulted with CEQ and requested concurrence with a plan to proceed with the licensing of the Milner Project prior to completion of the FEIS on the four projects on the Snake River. 4 Consistent with the emergency provisions CEQ's regulations, the CEQ approved the Commission's plan to license the hydroelectric facility at the Milner Dam prior to completion of the FEIS. 5

II. Comprehensive Water Block

Commission staff has proposed development of a Comprehensive Water Block (CWB) for the four projects in the Snake River Basin included in the DEIS. As described in more detail in the Scoping Document Supplement (Supplement) prepared for this proceeding in October 1988, 6 the objective of the CWB is to provide target flows at the projects when water is available in excess of irrigation needs. The CWB represents the combined amount of water needed to provide target flows for protection and enhancement of environmental resources associated with the four projects addressed in the DEIS. Under the CWB proposal, each of the four projects, if licensed and constructed, would provide a sub-block to the CWB; the size of the individual sub-blocks would be different for each project, due to the fact target flows would be based on what is needed to mitigate impacts at each specific project. The size of the CWB would also vary from year to year depending on the amount of flow in the river and the availability of water in excess of irrigation needs.

3 See 40 C.F.R. 1506.11 (1988).

4 Letter from Martha O. Hesse, Chairman, Federal Energy Regulatory Commission, October 25, 1988).

5 Letter from A. Alan Hill, Chairman, CEQ, October 27, 1988.

6 Information regarding the Supplement was published in the Federal Register on October 15, 1988. See 53 Fed. Reg. 42,997. Scoping meetings on the Supplement were held in Boise and Twin Falls, Idaho, on November 2, 1988.

The CWB proposal would require the licensees for the four projects to lease water for the CWB from the Upper Snake Water Supply Bank (Water Bank). The State of Idaho established the Water Bank as a convenient means to allow and account for the rental of water by those irrigators in need of additional water from those who have excess water. Irrigators who estimate that their water storage rights would be in excess of their requirements in any year may place a portion of their storage right in the Water Bank, to be leased by others, with irrigators receiving first priority. Any water that is not leased in any year is lost if all of the upstream storage is refilled in the following year.

IDWR, by letter dated September 30, 1988, stated that it appears that structured reliance on the Water Bank through the CWB mechanism can be successful in meeting prescribed mitigative flows on the mainstem of the Snake River. Furthermore, Commission staff discussions with IDWR staff regarding the operation of the Water Bank revealed that: (1) water has been available for lease from the Water Bank in all years since its creation; (2) Idaho Power Company has leased water for power generation from the Water Bank in every year since its creation; (3) future water availability likely will increase due to increased irrigation efficiencies; (4) it is highly probable that water will be available in the Water Bank in excess of irrigation demand in the future, except in very bad water years; and (5) the cost of water from the bank is currently very reasonable, and is expected to remain so in the foreseeable future.

Under the CWB proposal, each licensee would be responsible for providing project-specific target flows. Target flows to be set for the projects would recognize the physical limitations of the river system so that they would not interfere with irrigation operations and would not flood low-lying areas. Flows to be released for project-specific target flows would be accounted for when the water is released from the upstream American Falls Reservoir and measured below Milner Dam. Thus, the CWB would be an accounting mechanism for licensees to equitably share the responsibility for mitigative flows, since water which is released from American Falls Reservoir would flow through all of the four proposed projects.

As discussed below, we believe the CWB proposal is an appropriate means to provide mitigative flows while recognizing the need to protect irrigation needs in the area. Accordingly, Article 401 of the license requires CC to meet the target flows specified by Article 407 of the license by renting water from the Water Bank when it is available.

III. Environmental Impacts

A. Erosion, Sedimentation, and Slope Stability

Rehabilitation of Milner Dam would involve excavation of rock materials, construction of access roads leading from the excavations to the dam, associated staging areas, and a cofferdam to dewater a small area in the reservoir when reconstructing the spillway. These activities would cause minor erosion, sedimentation, localized movement of loose rock materials, and temporary increases in suspended sediment in Milner Reservoir during placement and removal of cofferdams. In order to ensure that impacts on soils and geologic resources are minimized, Article 402 requires CC to include measures to minimize erosion and sedimentation and to control slope stability when submitting final design specifications for rehabilitation of Milner Dam.

During project construction, localized erosion, sedimentation, and temporary increases in turbidity and suspended sediments would occur until disturbed land surfaces are stabilized. Blasting for the powerhouse and tailrace excavation and construction of the access road could cause localized rockfall and mass movement of loose materials, and placement and removal of cofferdams would temporarily increase suspended sediments and turbidity within the Snake River.

With implementation of a detailed, site-specific erosion, sediment, and slope stability control plan that incorporates CC's proposed mitigation and the mitigation measures recommended in the DEIS, the effects on soil and geologic resources would be minor. [7] Article 402 requires CC to prepare a detailed, site-specific plan to control erosion, sedimentation, and slope stability that includes control measures proposed by CC and recommended in the DEIS.

B. Water Quality

1. Water Quality Certification

In a letter dated January 27, 1984, CC requested water quality certification pursuant to Section 401(A)(1) of the Clean Water Act from the Idaho Department of Health and Welfare (IDHW). IDHW granted water quality certification for the Milner Project on September 30, 1985. Since IDHW did not act on the certification request within one year from the date it received the request, water quality certification was deemed waived by

[7] See Section 4.1.1.1 of the DEIS.

Order No. 464. 8 However, since we believe the three conditions contained in the water quality certificate, which address erosion control, spoil disposal, and storage of fuels and chemicals are necessary, we are including them as part of Article 402 of the license.

2. Milner Reservoir and the Snake River below Milner Dam

The water quality in the Upper Snake River Basin is generally good, and is categorized as Class A by IDHW. Water uses to be protected include domestic and industrial water supply, irrigation, livestock watering, and salmonid fish spawning and rearing.

In the 1960's, Milner Reservoir had poor water quality conditions resulting from municipal and industrial point source discharges. During periods of reduced discharges, low dissolved oxygen concentrations (DO) in Milner Reservoir resulted in major fish kills. Substantial reductions in these point source discharges in the 1970's, however, have contributed to better water quality conditions in the reservoir.

Temperature and DO sampling conducted by CC's consultant in June to September 1983 and in August to December 1987 indicate that Milner Reservoir does not thermally or chemically stratify and that DO and temperature levels in the river below Milner Dam are similar to those in Milner Reservoir. These levels met the state water quality standards at all depths sampled in Milner Reservoir and in the Snake River below Milner Dam.

The Environmental Protection Agency (EPA) reports that in past years the surface waters of Milner Reservoir contained high concentrations of heavy metals. Since 1979, EPA reports that concentrations of zinc, cadmium, and copper in Milner Reservoir and in the Snake River below Milner Dam have ranged from 0 to 50 micrograms per liter (ug/l), from .2 to 2 ug/l, and from 1 to 8 ug/l, respectively. However, these concentrations are below levels reported by EPA that adversely affect freshwater aquatic organisms. 9

8
52 Fed. Reg. 5446 (February 23, 1987), FERC Stats. and Regs. III, 30,370 (effective May 11, 1987); reh'g denied, 52 Fed. Reg. 13,234 (April 22, 1987), 39 FERC 61,021 (Order No. 464-A), petitions for reconsideration dismissed, 41 FERC 61,206 (1987) (Order No. 464-B).

9
See generally Section 4.2.1 of the DEIS.

(A) Project Construction

Construction activities in Milner Reservoir and in the Snake River below Milner Dam would disturb sediments and other unconsolidated deposits that likely contain heavy metals or other toxic substances. Improper removal and disposal of sediments or unconsolidated deposits could disperse heavy metals or other toxic substances into the water column and would adversely affect the aquatic resources downstream. Although the entire project area need not be tested, Article 403 requires CC to test any sediment or unconsolidated materials within the Snake River and Milner Reservoir that would be dredged or excavated in conjunction with project construction for the presence of any heavy metals or other toxic substances, so that any contaminated materials would be identified, safely removed, and disposed of with minimal adverse effects on water quality and aquatic organisms.

(B) Project Operation

The proposed powerhouse would have the capacity to use flows of from 900 to 4,000 cubic-feet-per-second (cfs). Typically, the flows that pass Milner Dam in the summer are low, not generally exceeding 500 cfs, and the proposed powerhouse would not be expected to operate from approximately mid-June through mid-September.

Operation of the proposed project would not affect the water quality in Milner Reservoir; however, CC's proposed minimum flow of 58 cfs in summer during the irrigation season would likely result in substantial adverse impacts on water temperature and DO within the 1.6-mile-long bypassed reach. The DO and temperature of the water released from Milner Dam during summer would likely change as it flows downstream through the bypassed reach. The magnitude of these changes would depend on a number of factors, with the major controlling factor being the rate of stream discharge through the bypassed reach.

A reduction in the volume of water flowing through the bypassed reach would reduce water velocity and depth and increase the travel time. Consequently, the effect of solar radiation would be intensified and water temperature would increase in summer. Much slower velocities in the bypassed reach could also contribute to the growth of the already abundant aquatic plants. Increased plant respiration and decomposition would cause DO reductions.

Based on the cross-sectional and longitudinal profiles of the river channel below Milner Dam and the available data relating discharge to DO and water temperature, a flow of 200 to 300 cfs would likely have minimal impact on water temperature and

DO in the bypassed reach. Flows within this range would likely provide sufficient water velocity and depth, and in turn reduce the travel time through the bypassed reach, thus minimizing the effect of solar radiation on water temperature. A target flow established within this range would likely provide water quality conditions that are suitable for maintaining a put-and-grow trout fishery. 10 The target flows required by Articles 407 and 415 during project operation for the maintenance of the fish and recreational resources, respectively, would minimize the impacts of project operation on water temperature, DO, and sedimentation in the bypassed reach.

The DEIS recommended that CC implement a water quality monitoring plan that should include provisions for discharging sufficient water to the bypassed reach to minimize the effects of the proposed project on the water quality of the Snake River during project operation. Water quality impacts would be most critical during low water years and during summer months that coincide with low flows, high nutrient levels, and elevated water temperatures.

CC should implement a water quality monitoring plan along the bypassed reach. Therefore, Article 404 of the license requires CC to monitor the water quality of the Snake River to determine if water temperatures and DO necessary for the survival of a trout fishery within the bypassed reach are being maintained by the target flow released from Milner Dam. If the results of the monitoring required by Articles 404 and 409 show that levels of DO and temperature in the bypassed reach are not sufficient for maintaining a put-and-grow trout fishery, Article 409 requires CC to implement other fishery mitigation.

C. Fishery Resources

1. Existing Environment

(A) Milner Reservoir

Milner reservoir supports both warmwater and coldwater fisheries. The warmwater species include smallmouth bass, largemouth bass, yellow perch, channel catfish, brown bullhead, and black crappie. The coldwater species are rainbow trout, cutthroat trout, brown trout, and mountain whitefish. Also, numerous nongame species inhabit the reservoir. The coldwater species occur primarily at the headwaters of the reservoir. IDFG stocks catchable rainbow trout in the headwaters of Milner Reservoir near Burley, Idaho.

10 This fishery resource is discussed in Part II C 4, infra.

Milner reservoir has a sandy substrate and is devoid of three dimensional structure such as rocks or boulders. The sandy substrate probably limits the production of aquatic invertebrates typically fed upon by fish. Further, the lack of structure limits warmwater fish production because structure is used by warmwater fish for spawning and for cover. 11

The Idaho Fisheries Management Plan 12 states that warmwater fish such as smallmouth bass, and channel and blue catfish will be stocked in the reservoir to meet the demand for the warmwater fishing in Milner Reservoir. The Fisheries Management Plan states that the management direction for Milner Reservoir include improving warmwater fish habitat.

(B) Snake River Bypassed Reach

Game fish use below Milner Dam is seasonal and depends on flow levels. Rainbow trout, cutthroat trout, brown trout, rainbow-cutthroat trout hybrids, mountain whitefish, channel catfish, largemouth and smallmouth bass, and yellow perch have been collected in the Snake River below Milner Dam. Nongame fish such as Utah dace, redside shiners, and mottled sculpins dominated the catch during the low flow period. 13

Water diversions for irrigation limits trout use of the proposed bypassed reach primarily to the non-irrigation season. Water diversions from April through October for irrigation deliveries significantly reduce the amount of water flowing downstream of Milner Dam. These flow reductions during the irrigation season, along with the likely changes to water quality, increased water temperature and decreased DO concentration, decreases the suitability of the downstream area for trout.

The Fisheries Management Plan for the Snake River below Milner Dam calls for a "yield trout fishery" with an approximate catch rate of 0.5 fish per hour. According to the Fisheries Management Plan, rainbow trout consisting of wild and hatchery fish would support the yield fishery.

11
See Section 3.3.2.1.1 of the DEIS.
12
Idaho Department of Fish and Game, 1986, Fisheries Management Plan 1986 - 1990, Boise, Idaho, 274 pp.
13
See Section 3.3.2.1.2 of the DEIS.

2. Impacts

(A) Project Construction

Constructing the Milner Project and upgrading the dam would cause short-term increases in suspended and dissolved solids which would ultimately be deposited in downstream areas. The siltation could negatively affect mountain whitefish spawning in the bypassed reach, but would have actual little effect, due to the fact that so few fish occur or spawn in the bypassed reach. Siltation from construction activities would have little effect on other aquatic resources, because the siltation would be flushed out during the next high flow period. Further, implementing the erosion control and sedimentation plan required by Article 402 would limit sources of sediment. The potential for toxic substances affecting the downstream aquatic resources would be low because of the sediment testing and sediment removal requirements of Article 403.

(B) Project Operation

Operating the Milner Project would increase the time period for diverting water from the reservoir to the Twin Falls Main Canal. Typically, CC now diverts water during the irrigation season from April through October. With the project operating, CC would divert water all year and would reduce the frequency of spillage over Milner Dam. Fish passing over Milner Dam with the high spillage flows is probably the primary mechanism by which trout populate the bypassed reach. Project operation would substantially increase the number of fish diverted to the canal, where they would enter the project intake and would be killed or injured by the turbines or would no longer be recruited to the bypassed reach or downstream areas.

CC proposes to mitigate for adverse project impacts by enhancing the fish habitat in Milner Reservoir instead of installing a fish screen to mitigate the turbine-induced fish losses. The DEIS agreed with CC's reservoir enhancement proposal, but expressed reservations about the probability for success. 14 In its motion to intervene, IDFG stated that enhancing the habitat in Milner Reservoir would partially mitigate for turbine-induced fish mortality.

Enhancing the warmwater fish habitat by providing structures for holding and rearing habitat, or increasing spawning areas and stocking warmwater fish in Milner Reservoir as described in the Fishery Management Plan, would adequately mitigate turbine-induced fish losses. Therefore, CC should finance the

14
See Section 4.2.2.1.2 of the DEIS.

development of the Milner Reservoir warmwater fishery as described in the Fisheries Management Plan. In addition, CC should fund stocking of warmwater fish species in the reservoir in cooperation with the IDFG. Stocking warmwater fish in the reservoir in cooperation with the IDFG and enhancing the reservoir habitat would be consistent with the Fisheries Management Plan. Article 405 requires CC, after consultation with IDFG, to develop, implement, and finance a warmwater fish stocking program and a habitat enhancement plan that is consistent with the Fisheries Management Plan for Milner Reservoir to mitigate the adverse effects of the project on the fishery resources.

CC should consult with IDFG and develop a plan to monitor the effectiveness of the reservoir enhancement structures and the fish stocking program. Specifically, CC should determine if additional warmwater fish stocking is necessary to meet the objectives of the Fisheries Management Plan for Milner Reservoir. The monitoring would also assist in determining the length of time the structures would remain in place and provide fish habitat. We conclude that a five-year monitoring program would provide sufficient information to determine if the mitigative measures are adequate. The monitoring also allows for correcting those that are not working. Therefore, Article 406 requires CC to conduct a reservoir fish habitat and fishery study for at least five years to determine if the fish habitat enhancement structures have remained in place and are functioning as desired and to determine if additional warmwater fish need to be stocked.

3. Instream Flow

CC proposes to release 58 cfs during the irrigation season and 150 cfs during the non-irrigation season. However, CC did not provide a biological rationale for these flow proposals or for the seasonal difference in the flows. The DEIS found that 58 cfs would prevent fish movement in the bypassed reach and would degrade fish food production by increasing channel sedimentation. [15] The proposed 58 cfs minimum flow would provide slightly improved instream flow conditions, because it would prevent the extreme low flow events that occasionally occur.

Operating the project during the non-irrigation season with the proposed 150 cfs minimum flow would significantly reduce the amount of trout habitat in the 1.6-mile-long bypassed reach according to conventional instream flow methodologies, would severely reduce trout recruitment and use of the bypassed reach during the non-irrigation season, and would reduce invertebrate

15 See Section 4.2.2.1.1.3.1 of the DEIS.

production. 16 Proposed project operation would reduce the amount of trout habitat and eliminate spillage over the dam much of the time and, therefore, preclude trout movement over the dam to the bypassed reach. Thus, the proposed non-irrigation season minimum flow would conflict with the management direction of the yield fishery, because trout recruitment and suitable trout habitat would not be maintained in the bypassed reach.

The DEIS recommended that CC maintain minimum flows of 58 cfs and 1,260 cfs in the irrigation and non-irrigation seasons, respectively, to protect the downstream fishery resources. 17 The DEIS also recommended a minimum flow of 300 cfs in the irrigation season to partially mitigate the cumulative adverse impacts to the resident trout and other resources. 18 Since the DEIS' 300 cfs recommendation to mitigate cumulative impacts superceded the 58 cfs minimum flow for fishery resource protection, the DEIS concluded that minimum flows of 300 cfs in the irrigation season and 1,260 cfs in the non-irrigation season were needed. Flows derived by the Tennant Methodology, 19 the stream resource maintenance flow study, 20 and the minimum flows recommended in the DEIS to protect the fishery resources in the bypassed reach during the non-irrigation season range from 720 cfs to 2,190 cfs.

Release of the above flows for fishery protection purposes during the irrigation season would interfere with irrigation and thus could have a severe impact on the farm-based economy of the area. Furthermore, the release of the flows recommended for the non-irrigation season would reduce generation and hence the revenues necessary to repair Milner Dam. We believe that the

16
Id.
17
See Section 4.2.2.1.2 of the DEIS.
18
See Section 5.1.2 of the DEIS.
19
D.L. Tennant, 1976, Instream flow regimes for fish, wildlife, recreation, and related environmental resources, Pages 359-373. In Orsborn, J. F., and C. H. Allman, (ed.), Proceedings of the Specialty Conference on Instream Flow Needs, Volume II, American Fisheries Society, Bethesda, Maryland.
20
T. Cochnauer, 1976, Stream Flow Investigation, Project F-9-R-1, Job I, evaluation of applicability of water surface profile predictive modeling in reference to stream resource maintenance flow (SRMF) determinations, Job II, stream resource maintenance flow determinations on the Snake River, Idaho Department of Fish and Game, Boise, Idaho, 44 pp.

need to protect irrigation usage and provide sufficient generation outweigh the need to protect the fishery resources. Accordingly, we will not require CC to release the flows referenced above. However, we are requiring CC, by Article 407, to release a target flow of 200 cfs.

The loss of trout habitat in the non-irrigation season is offset somewhat by eliminating the extreme low flows that have occurred during the irrigation season, thus allowing trout to use the bypassed reach more consistently. A stable flow of 200 cfs would slightly enhance the fishery resources by continually maintaining a limited amount of habitat that would occasionally be eliminated by the low flow events. Therefore, 200 cfs would probably maintain sufficient water quality to maintain a put-and-grow trout fishery in the bypassed reach. As just indicated, Article 407 requires CC to maintain a target flow of 200 cfs below Milner Dam. 21

The Snake River downstream of the proposed powerhouse would benefit from the 200 cfs target flow. Releases from Milner Dam would prevent the extreme low flow periods. In addition to the releases from Milner Dam, the incentive to operate the powerhouse would provide water to downstream areas that would not typically have occurred during the irrigation season. Therefore, the fishery resources downstream of the bypassed reach would benefit more than those in the bypassed reach.

4. Trout Fishery Enhancement

The primary source of trout to the bypassed reach is recruitment from upstream areas. As mentioned above, proposed operation would reduce spill from Milner Dam and eliminate much of this recruitment..

In order to mitigate for the decreased recruitment to the downstream Snake River fishery and the loss of trout habitat in the Snake River in the non-irrigation season, CC should institute a put-and-grow trout fishery 22 in the 1.6-mile-long bypassed reach of the Snake River. CC should consult with IDFG to determine the sizes and numbers of trout to stock and to determine the area or areas in which to stock the trout. CC should stock the trout in areas that provide easy and safe access

21
The 200 cfs target flow is not a minimum flow, and CC does not have to release the flow unless water is available.

22
The Idaho Fisheries Management Plan defines a put-and-grow fishery as one where the fish are expected to survive and grow and contribute to the fishery for a extended period of time.

for anglers. This would provide a high value recreational fishery in this area.

Article 408 requires CC to develop and to implement a put-and-grow trout fishery in the 1.6-mile-long bypassed reach of the Snake River. We conclude that developing this trout fishery would mitigate the lost trout habitat in the Snake River resulting from reduced flows and would mitigate the reduced fish recruitment to the bypassed reach. Enhancing the trout fishery in the bypassed reach through hatchery supplementation would not conflict with the management direction for this section of the Snake River as described in the Fisheries Management Plan.

There is the possibility that the stocked fish would move downstream with the current where they would no longer be available to the anglers or where they could perish due to insufficient habitat or poor water quality. Therefore, CC should conduct a study to determine if the trout move downstream and if the trout are surviving long enough, depending on water temperature and DO concentration, to remain available to anglers.

CC should file annual reports about the survival, growth, and movement of the trout and how the water quality at 200 cfs affects their survival, growth, and movement. If it is determined that the trout stocked in the bypassed reach are not surviving, are not growing sufficiently, or are moving out immediately, then CC should consider stocking trout in other areas of the Snake River such as the head of Milner Reservoir near Burley, Idaho. In conjunction with this study, the results from the water quality monitoring required by Article 404, particularly water temperature and DO, will provide valuable information to determine if 200 cfs provides conditions conducive for establishing a year round trout fishery.

We conclude that a five-year monitoring program would provide sufficient information to determine if the trout stocking program is successful. If the results indicate that the trout stocking program is not successful, the monitoring allows for changing the stocking rates, the size and species of trout stocked, and the stocking location. Article 409 requires CC to conduct a five-year trout monitoring study and to file annual reports on the results of each years studies.

C. Ramping Rate

Rapid alteration of streamflows during project startup would strand fish in the bypassed reach when submerged areas quickly drain, because of rapid decreases in the amount of water available to maintain existing habitat. To protect the fish and other aquatic resources from rapid, project-induced flow