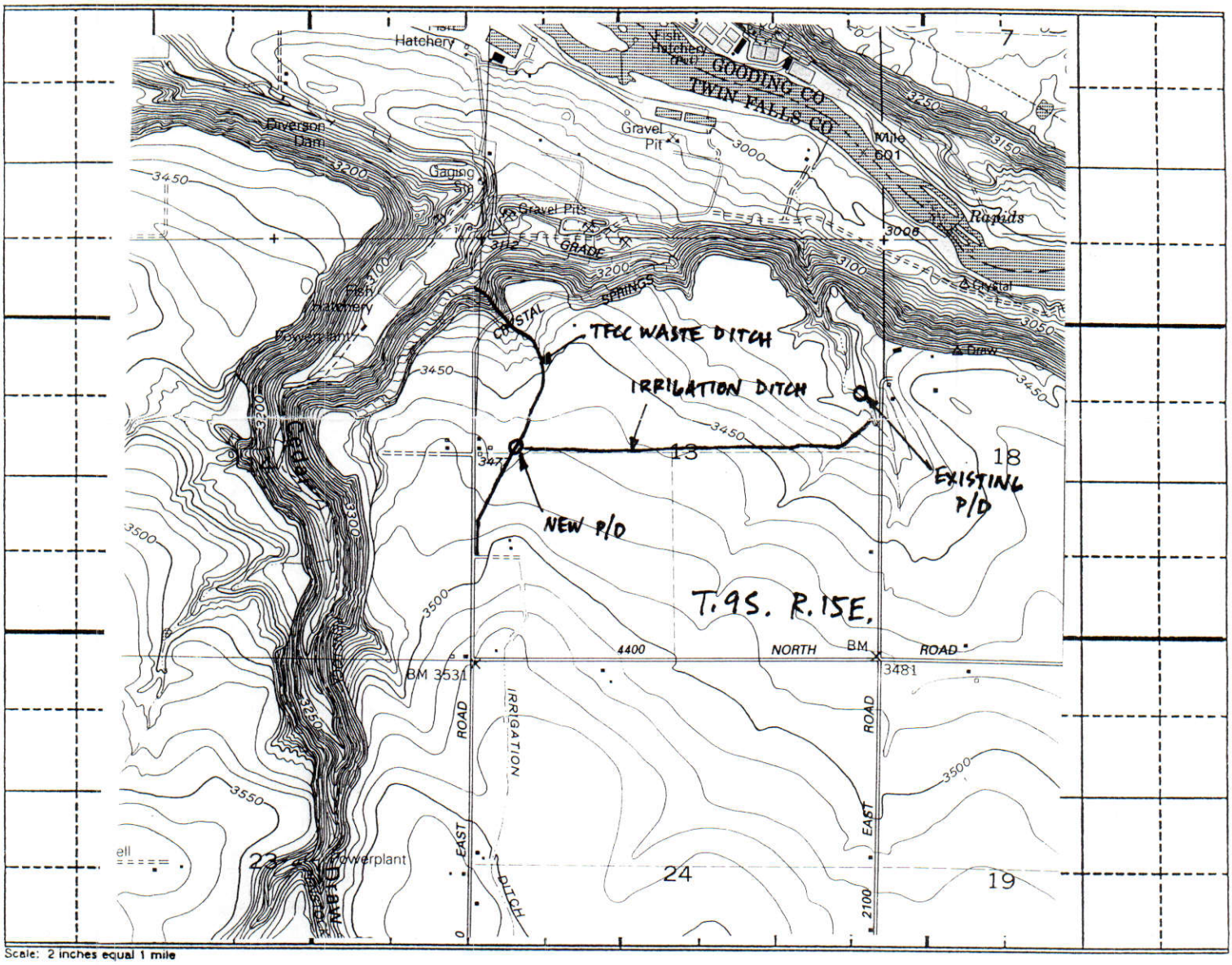
Complete the following map by showing land and point of diversion as proposed by this amendment.

Show 1/4 1/4, section, township, range and ditches. (the smallest subdivision represents 40 acres)



Scale: 2 inches equal 1 mile

I hereby request approval of this change subject to the fact that no one will be injured by the change, and that the change will be made at my own risk.

Signed this 3RD day of MARCH, 1998. James M. Miller, Pres.

Permit Holder

ACTION OF THE DEPARTMENT OF WATER RESOURCES

Preliminary check by _____ Publication prepared by _____ Date _____

Published in _____ Publication dates _____

I, _____, of the Department of Water Resources hereby

_____

_____

MICROFILMED

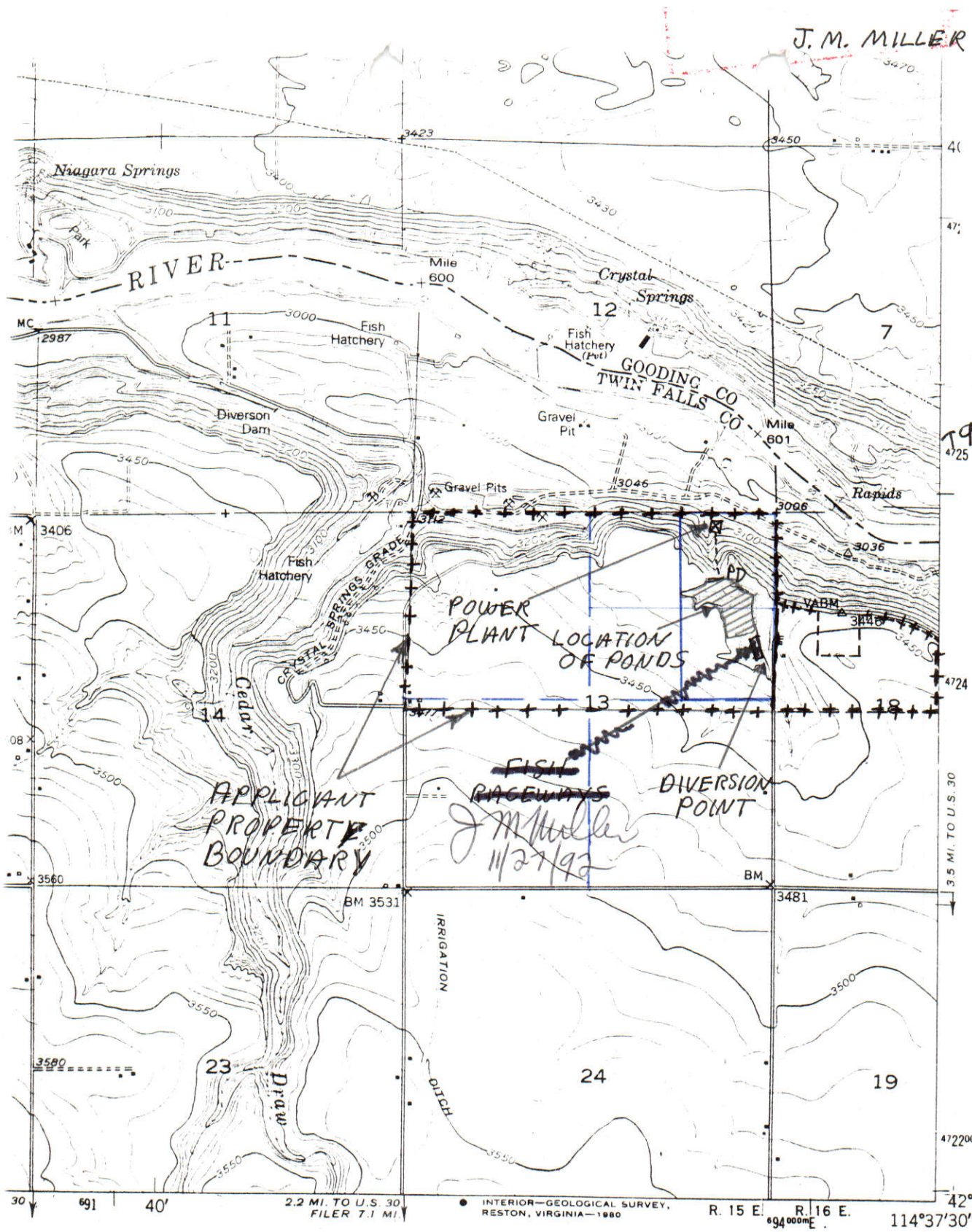
NOV 0 6 1998

Witness my hand this _____ day of _____, 19____.

_____

SIGNATURE

J. M. MILLER ENTERPRISES



1 MILE
7000 FEET
KILOMETER

ROAD CLASSIFICATION

Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route



QUADRANGLE LOCATION

NIAGARA SPRINGS, IDAHO
NW/4 JEROME 15' QUADRANGLE
N4237.5—W11437.5/7.5
1979

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1980

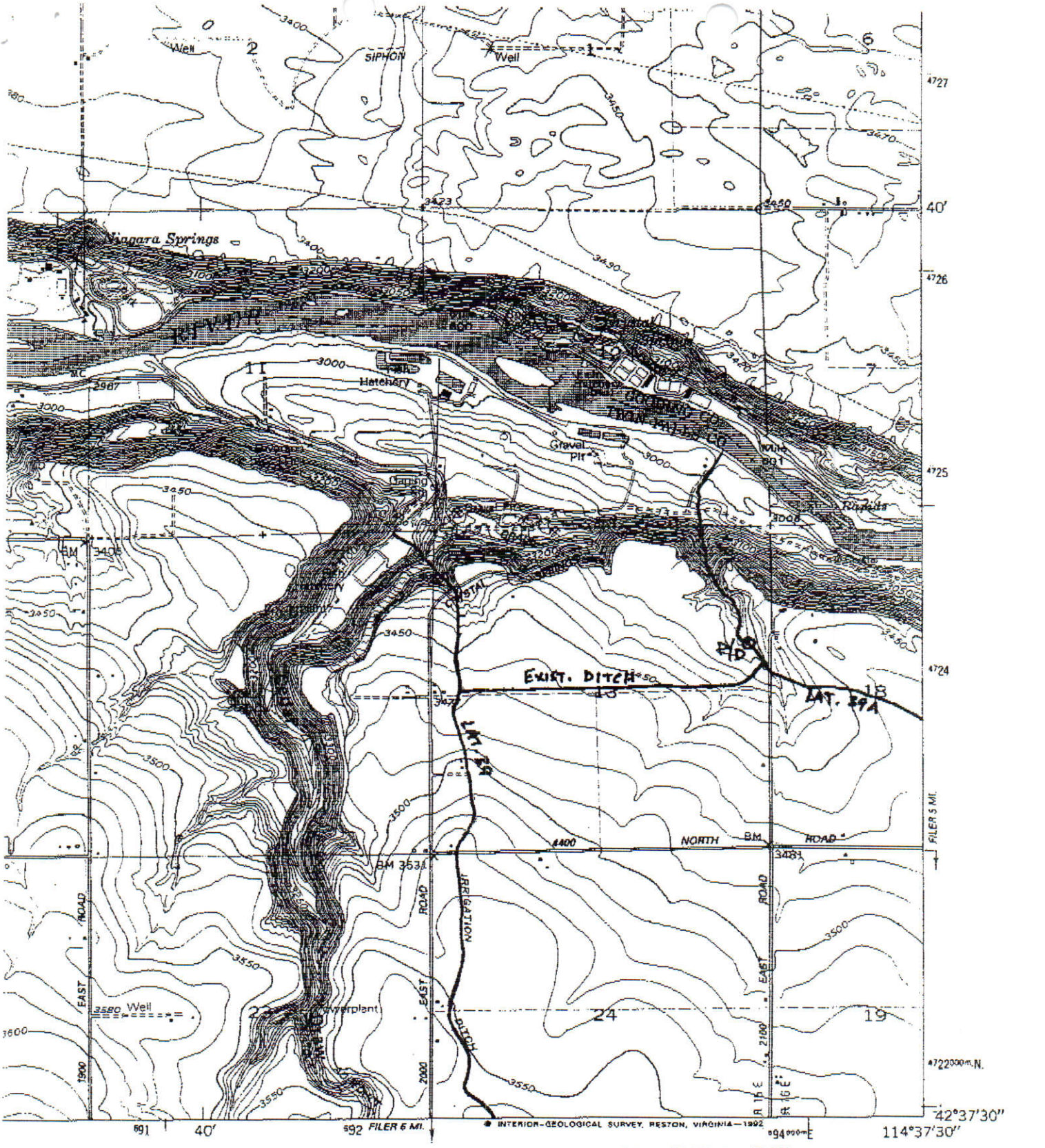
(FILER) 3369 IN SE

RECEIVED
NOV 29 1993

BB-21

47-08271

S
N. VIRGINIA 22092
REQUEST



1 MILE
6000 7000 FEET
1 KILOMETER

ROAD CLASSIFICATION

Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route

MICROFILMED
NOV 0 6 1998

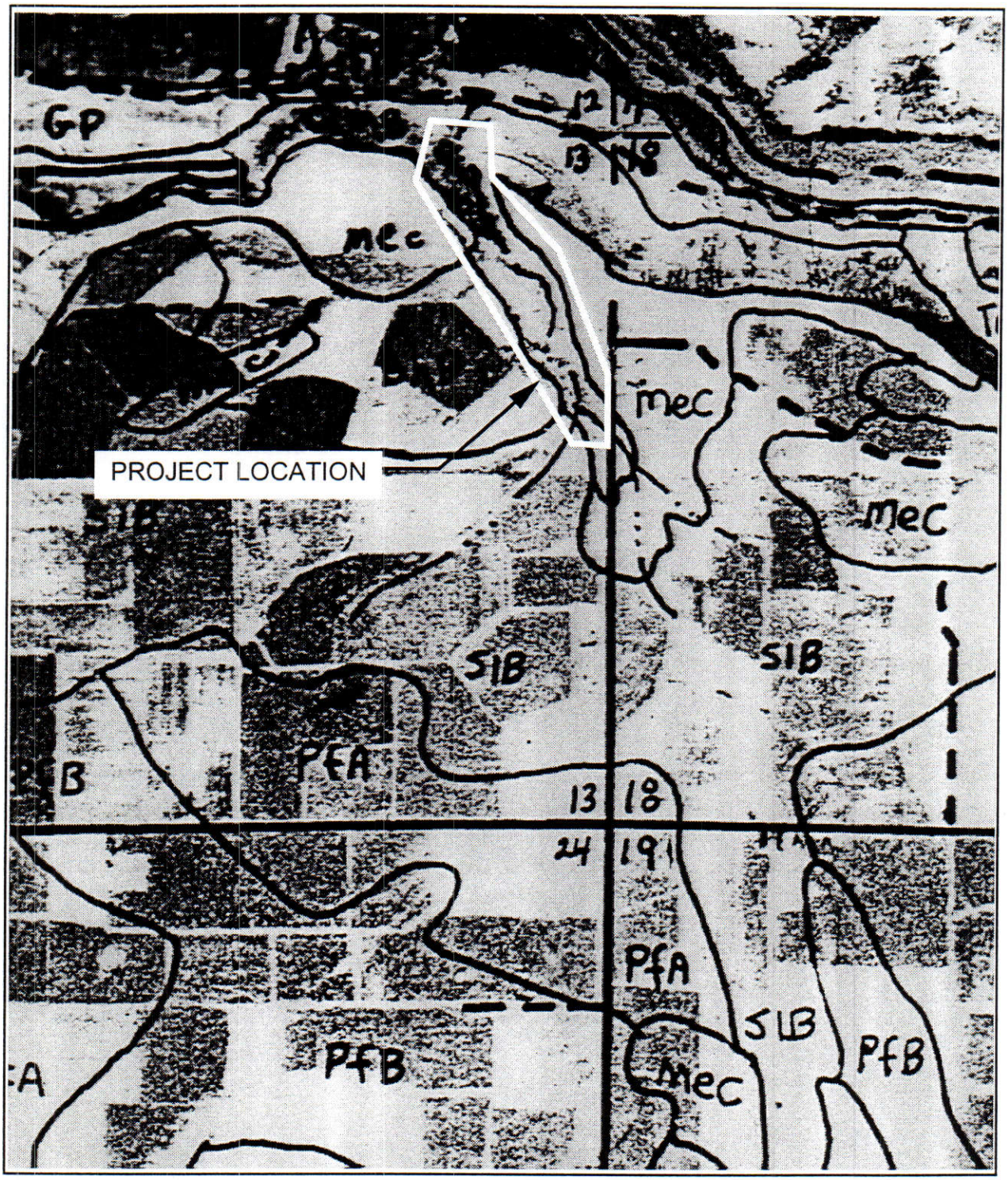
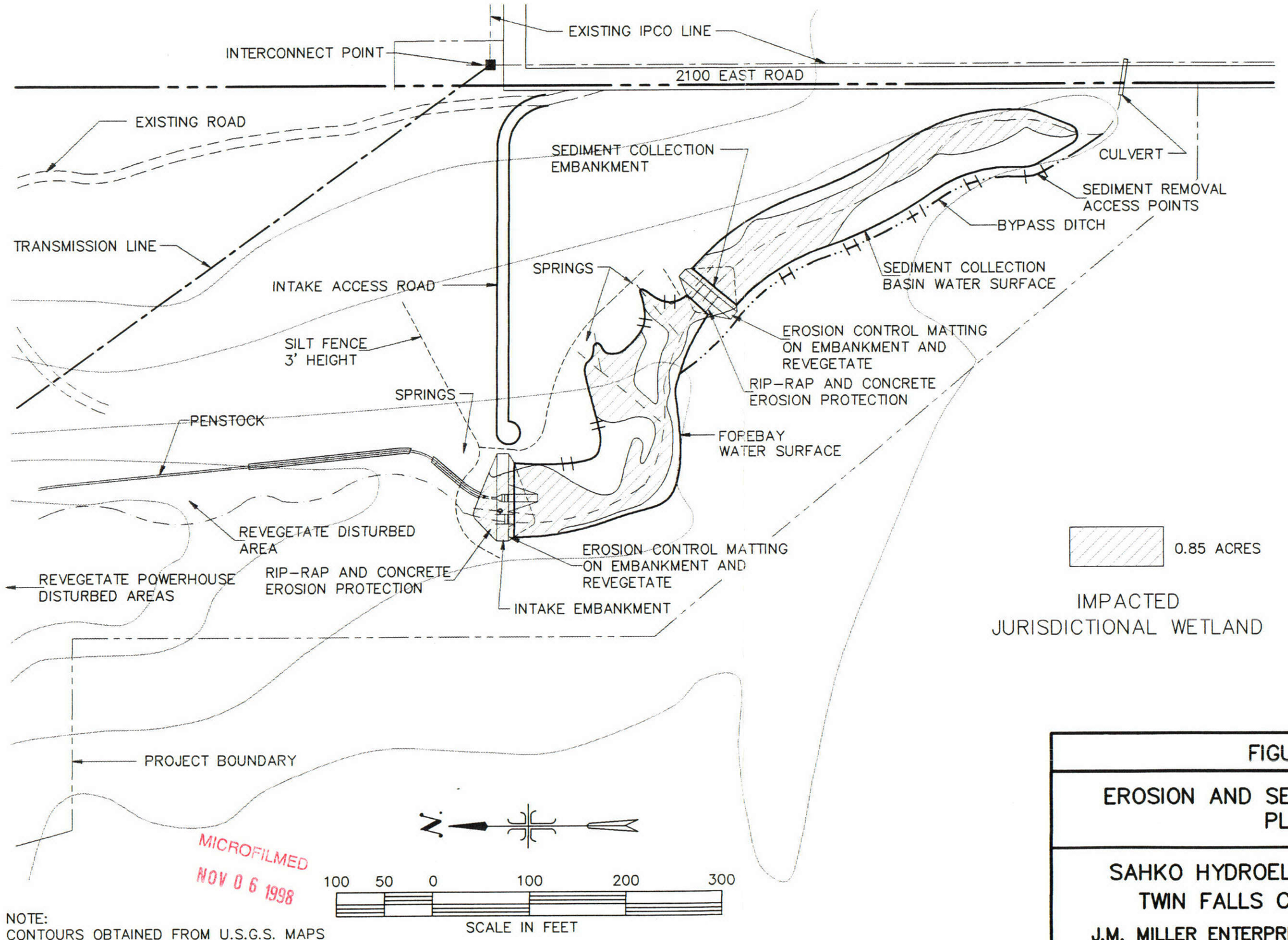


Figure 1. Soil unit map in the Sahko Hydropower project vicinity. Source: Natural Resources Conservation Service.

MICROFILMED
NOV 0 6 1998



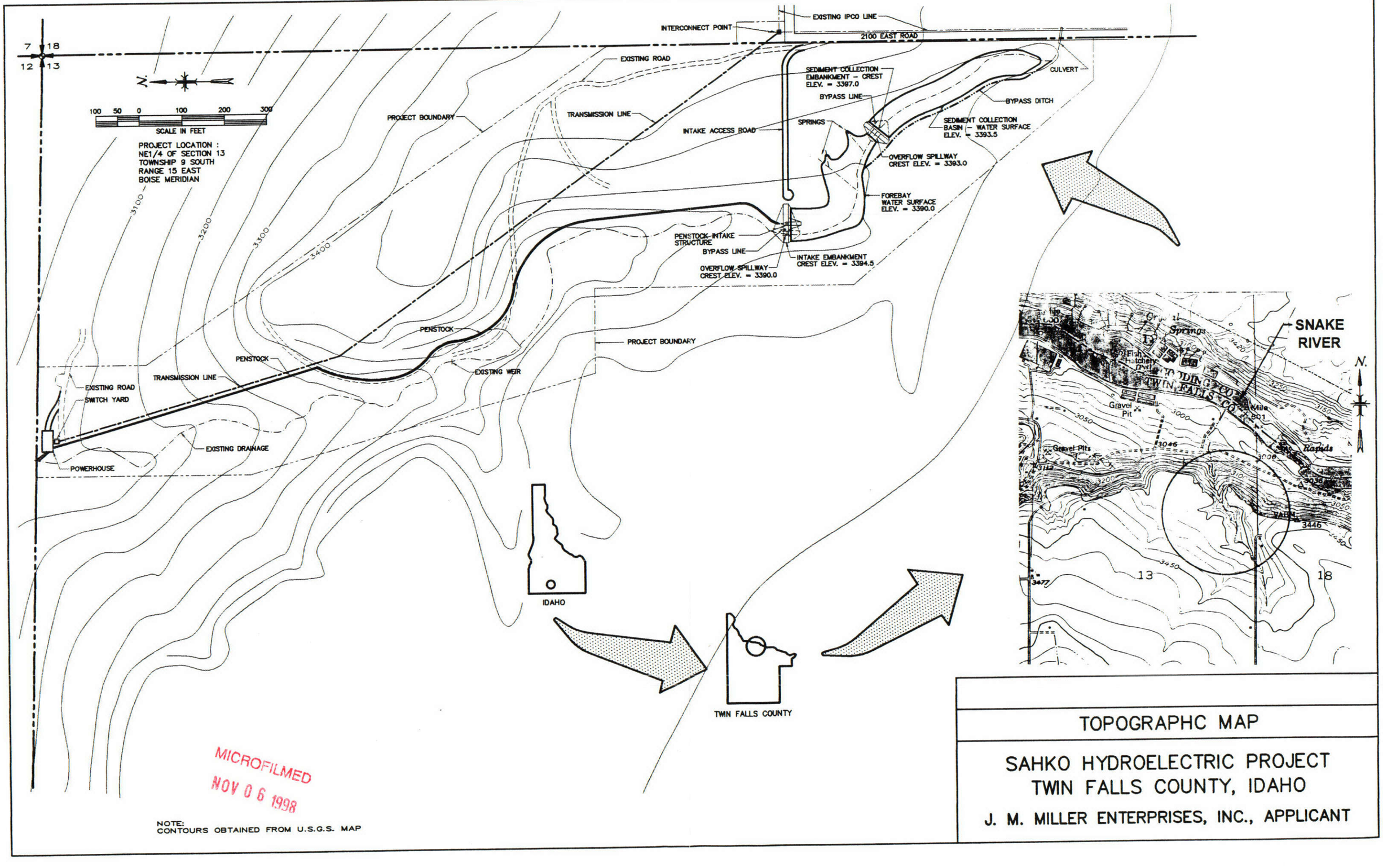
MICROFILMED
NOV 0 6 1998

NOTE:
CONTOURS OBTAINED FROM U.S.G.S. MAPS

FIGURE 2

EROSION AND SEDIMENT CONTROL PLAN

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT



MICROFILMED
NOV 06 1998

NOTE:
CONTOURS OBTAINED FROM U.S.G.S. MAP

TOPOGRAPHC MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

- Notify the Idaho State Historic Preservation Officer (SHPO) if any archeological remains are discovered during project construction.

3.2 Staff's Modification to J. M. Miller's Proposed Project

The Staff will consider alternative project configurations, designs, and locations, including mitigation and enhancement measures not proposed by the applicant. Alternative measures could include recommendations by resource agencies, other organizations, the general public, or the staff. To the extent that modification would reduce the power production from the proposed project, the staff will evaluate the costs and fossil-fueled-generation contributions to air-borne pollution.

3.3 No Action

Under the no-action alternative, the Commission would deny issuing a license for the proposed Sahko Hydroelectric Project. There would be no change to the existing environment, nor would any environmental enhancement measures be implemented. The no-action alternative is the benchmark from which we compare the proposed action and any action alternative.

4.0 SCOPE OF CUMULATIVE ANALYSIS AND ENVIRONMENTAL ISSUES

4.1 Cumulative Effects

According to the Council on Environmental Quality's Regulations for implementing NEPA (50 CFR §1508.7), an action may cause cumulative impacts on the environment if its impacts overlap in space and/or time with the impacts of other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

Based on our review of J. M. Miller's license application and agency comments, we've outlined the geographic and temporal scope of cumulative effects based on the resources that could be cumulatively affected by hydroelectric development and non-hydro activities, in the project area, and the Middle Snake reach of the Upper Snake River basin. These resources and cumulative effects will be addressed in the EA.

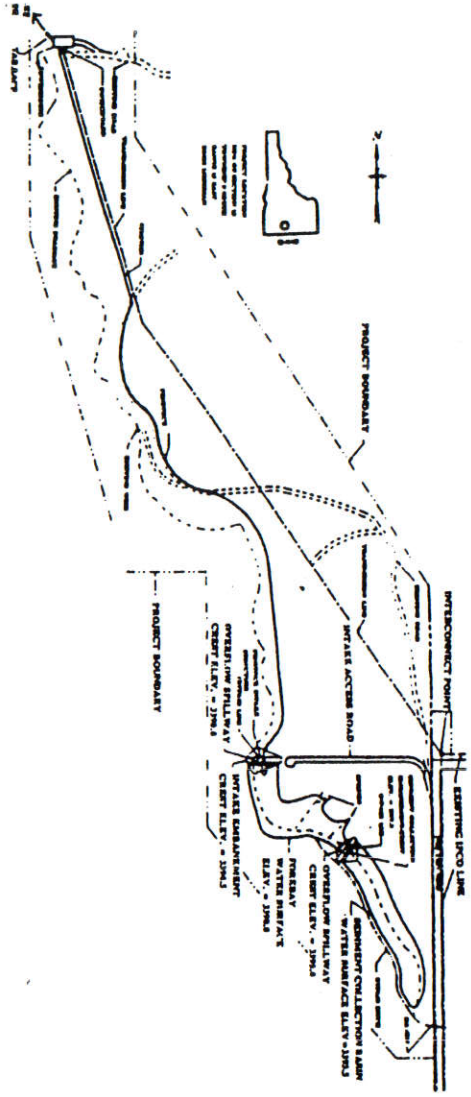
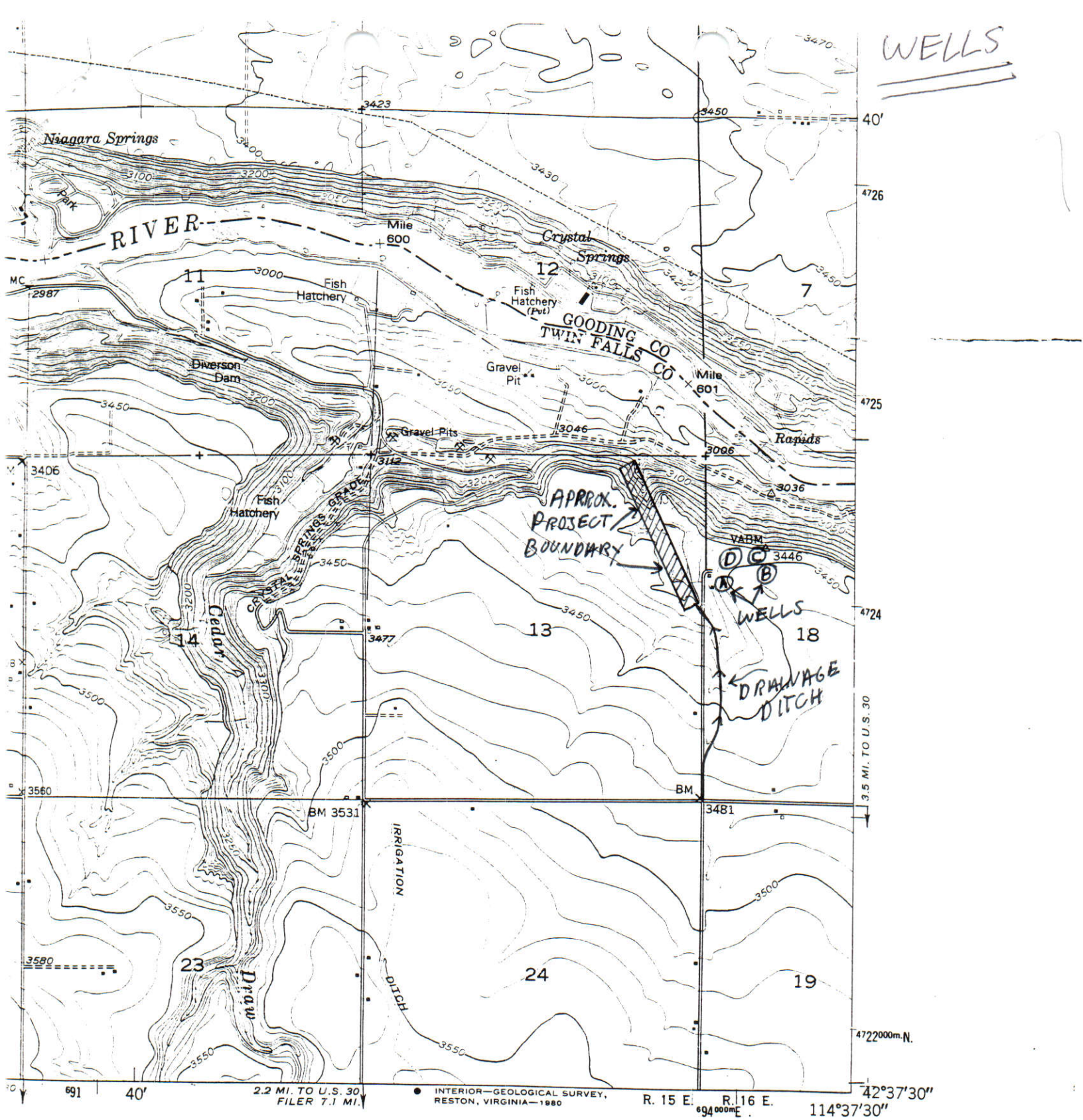


Figure 2. Project facilities for the Sahko Hydroelectric Project (Source: license application and FERC staff)

MICROFILMED
NOV 06 1998



1 MILE

7000 FEET

KILOMETER

ROAD CLASSIFICATION

Primary highway, hard surface

Secondary highway, hard surface

Light-duty road, hard or improved surface

Unimproved road

Interstate Route U. S. Route State Route

IDAHO

QUADRANGLE LOCATION

NIAGARA SPRINGS, IDAHO

NW/4 JEROME 15' QUADRANGLE

N4237.5—W11437.5/7.5

1979

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1980

(FILER) 3269 11 SE

MICROFILMED

NOV 29 1993

BB-21

MICROFILMED

VIRGINIA 22092

EQUEST

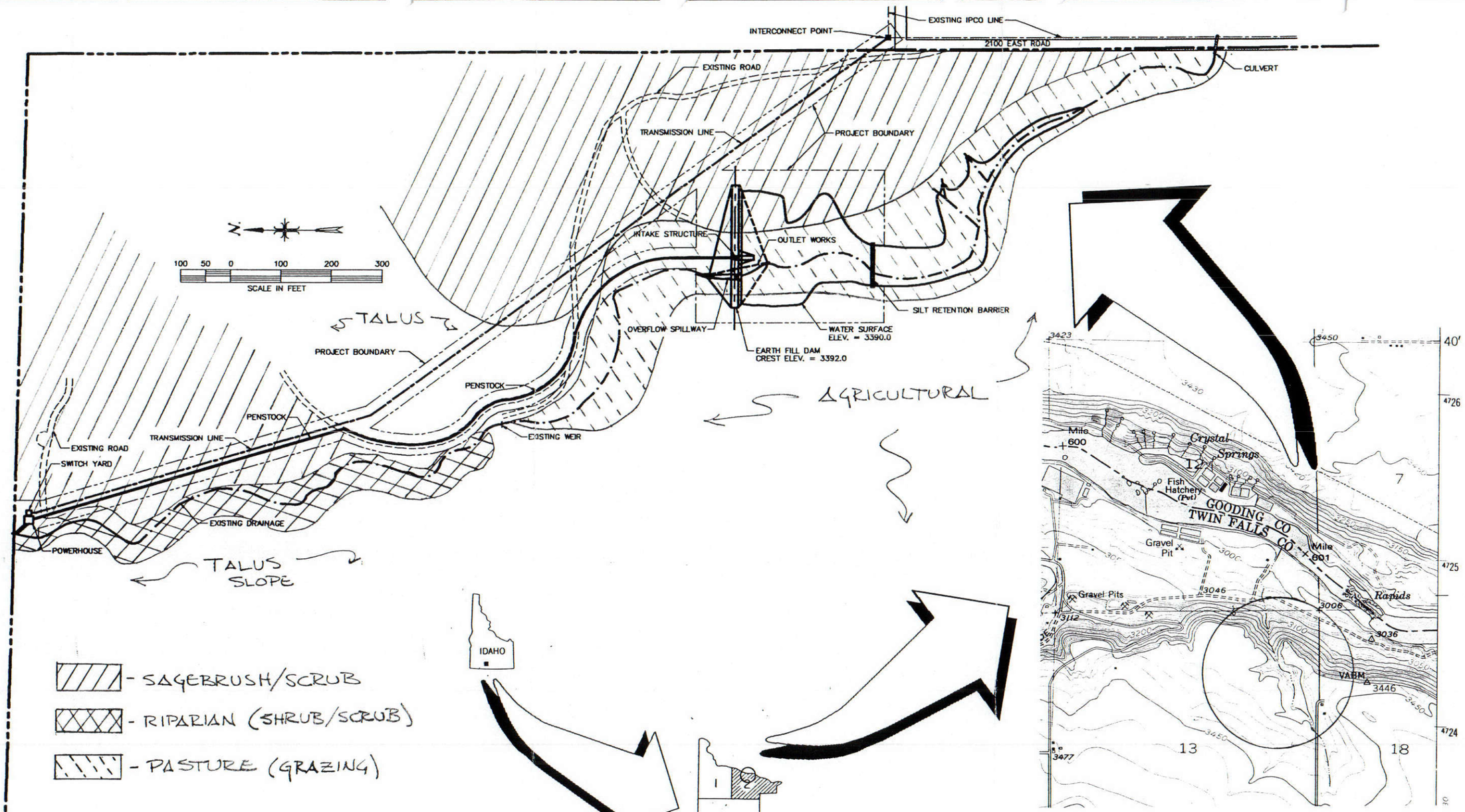


FIGURE E-1

VEGETATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J. M. MILLER ENTERPRISES, INC., APPLICANT

RECEIVED
NOV 29 1993

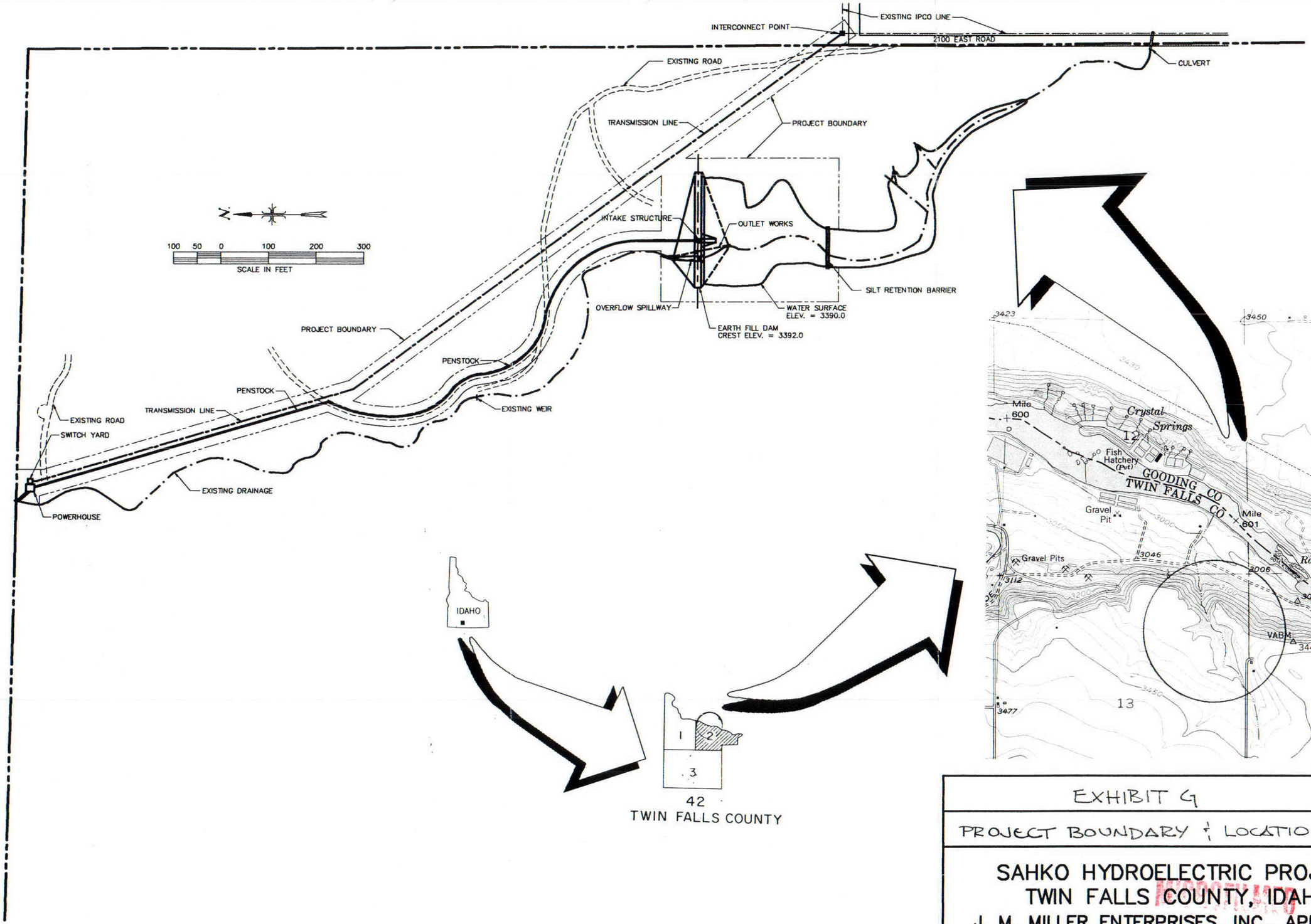


EXHIBIT G

PROJECT BOUNDARY & LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J. M. MILLER ENTERPRISES, INC., APPLICANT

RECEIVED
NOV 29 1993

Proof of Publication

The Post-Register

State of Idaho,
County of Bonneville } ss

I, S. BOB BRIGHT or TED DELEZENE, first being duly sworn, depose and say: That I am the Production Supervisor or Asst. Prod. Supervisor of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post-Register, a newspaper of general circulation, published daily, except Saturday, at Idaho Falls, Idaho; said Post-Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880 and the Idaho Falls Post, established in 1903, such consolidation being made on the 1st day of November, 1931, and each of said newspapers have been published continuously and uninterruptedly, prior to consolidation, for more than seventy-eight (78) weeks and said Post-Register having been published continuously and uninterruptedly from the date of such consolidation, up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post-Register for ... Two ..... consecutive weeks, first publication having been made on the ..3rd..... day of ..October..10....., 19.91.., last publication having been made on the 10th..... day of ..October....., 1991.., and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

S Bob Bright

Subscribed and sworn to before me, this ..16th. day of October....., 19.91..

Susan Magan
Notary Public

My commission expires . July. 1st ....., 19.97..

B10

NOTICE OF APPLICATION FOR WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:

47-08271
MILLER ENTERPRISES INC., J.M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use: STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.000 CFS)
Date Filed: 4/24/ 1991
In: T09S R15E S 13 NENE SENE

The permit will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 21, 1991.

Published: October 3, 10, 1991

OK MB 10-21-91

RECEIVED
OCT 21 1991
Department of Water Resources
Southern Region Office
MICROFILMED
NOV 29 1993

Proof of Publication

The Post-Register

RECEIVED
SEP 13 1991
Department of Water Resources
Southern Region Office

State of Idaho,
County of Bonneville } ss

I, S. BOB BRIGHT or TED DELEZENE, Production Supervisor or Asst. Prod. Supervisor of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post-Register, a newspaper of general circulation, published daily, except Saturday, at Idaho Falls, Idaho; said Post-Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880 and the Idaho Falls Post, established in 1903, such consolidation being made on the 1st day of November, 1931, and each of said newspapers have been published continuously and uninterruptedly, prior to consolidation, for more than seventy-eight (78) weeks and said Post-Register having been published continuously and uninterruptedly from the date of such consolidation, up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post-Register for Two consecutive weeks, first publication having been made on the 1st day of August, 19 91, last publication having been made on the ~~8th~~ SM 22nd day of August, 19 91, and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

S. Bob Bright

Subscribed and sworn to before me, this ~~14th~~ SM 10th day of ~~August~~ SM September, 19 91

Susan Haggan
Notary Public

My commission expires July 1st, 19 91

B10

OK

NOTICE OF APPLICATION FOR TRUST WATER RIGHT
47-08271
MILLER ENTERPRISES INC., J.M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use: STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.000 CFS)
Date Filed: 4/24/ 1991
In: T09S R15E S13 NENE SENE
The permit(s) will be subject to all prior water rights. Protests must be filled with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before AUGUST 19, 1991.
R. KEITH HIGGINSON, Director
Published: August 1, 8, 1991

SM

MICROFILMED
NOV 29 1993

OK except no publish 8/15/91

NB 9-18-91

NOTICE OF APPLICATION FOR TRUST WATER RIGHT
47-08271
MILLER ENTERPRISES INC., J.M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use: STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.000 CFS)
Date Filed: 4/24/ 1991
In: T09S R15E S13 NENE SENE
The permit(s) will be subject to all prior water rights. Protests must be filled with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before SEPTEMBER 2, 1991.
R. KEITH HIGGINSON, Director
Published: August 15, 22, 1991

SM

NOTICE OF APPLICATION FOR TRUST WATER RIGHT

47-08271 ✓
MILLER ENTERPRISES INC., J.M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE
Sec 13 T 09S R 15 E
Use: STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.000 CFS)
Date Filed: 4/24/1991
In: T09S R15E S13 NENE SENE

47-08273 ✓
U.S. DEPT. OF INTERIOR
BUREAU OF LAND MANAGEMENT
RT. 3 BOX 1
BURLEY, ID 83318
Source: SPRING
Tributary: SINKS
Diversion Pt: SENESW
Sec 23 T 12S R 18E
Use: STOCKWATER FROM STORAGE (.30 AF)
STOCKWATER STORAGE (.30 AF)
WILDLIFE STORAGE (.20 AF)
WILDLIFE FROM STORAGE (.20 AF)
Total Diversion: (.50 AF)
Date Filed: 6/18/1991
In: T12S R18E S23 SESW

47-08274 ✓
U.S. DEPT OF INTERIOR
BUREAU OF LAND MANAGEMENT
RT. 3 BOX 1
BURLEY, ID 83318
Source: SPRINGS
Tributary: SINKS
Diverson Pt: NWNWSW
Sec 2 T 16S R 17E
Use: STOCKWATER FROM STORAGE (.20 AF)
WILDLIFE STORAGE (.10 AF)
WILDLIFE FROM STORAGE (.10 AF)
STOCKWATER STORAGE (.20 AF)
Total Diversion: (.20 AF)
Date Filed: 6/18/1991
In: T16S R17E S02 NWSW

47-08275 ✓
U.S. DEPT OF INTERIOR
BUREAU OF LAND MANAGEMENT
RT. 3 BOX 1
BURLEY, ID 83318
Source: SPRING
Tributary: SINKS
Diversion Pt: NESESW
Sec 23 T 12S R 18E
Use: STOCKWATER STORAGE (.30 AF)
STOCKWATER FROM STORAGE (.30 AF)
WILDLIFE STORAGE (.20 AF)
WILDLIFE FROM STORAGE (.20 AF)
Total Diversion: (.50 AF)
Date Filed: 6/18/1991
In: T12S R18E S23 SESW

47-08276 ✓
U.S. DEPT. OF INTERIOR
BUREAU OF LAND MANAGEMENT
RT. 3 BOX 1
BURLEY, ID 83318
Source: SPRING
Tributary: SINKS
Diversion Pt: SESESW
Sec 2 T 16S R 17E
Use: STOCKWATER STORAGE (.20 AF)
STOCKWATER FROM STORAGE (.20 AF)
WILDLIFE STORAGE (.10 AF)
WILDLIFE FROM STORAGE (.10 AF)
Total Diversion: (.20 AF)
Date Filed: 6/18/1991
In: T16S R17E S02 SESW

The permit(s) will be subject to all prior water rights. Protests must be filled with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before September 2, 19, 1991.
R. KEITH HIGGINSON
Director
PUBLISH: Thursday, August 1, 15, and 22, 1991.

RECEIVED
Water Resources
Office

Affidavit of Publication

№ 22693

STATE OF IDAHO }
COUNTY OF TWIN FALLS } ss.

I, Linda Copps McGuire being first duly sworn upon oath, depose and say that I am Legal Clerk of the TIMES-NEWS, published daily, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for Four consecutive Weeks, commencing with the issue dated August 1, 1991, and ending with the issue dated August 22, 1991.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 31, 1978, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO
COUNTY OF TWIN FALLS

On this 29 day of August in the year of 1991, before me, a Notary Public, personally appeared Linda Copps McGuire, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Martha L. Doll
Notary Public for Idaho
Residing at Twin Falls Id
My commission expires: 8-8-96

RETURNED
NOV 29 1993

0 ← NB 9/18/91

TRIBUNE PUBLISHING COMPANY, INC.
The Lewiston Morning Tribune
505 C St., P.O. Box 957
Lewiston, Idaho 83501
(208) 743-9411

Date 082291 INVOICE No. L00304575

Account No. 446620 47-08271

Description 04575NOTIC

Times 2 Lines 32

Tab Lines

$ 36.00

LEGAL ADVERTISING
INVOICE

SOLD TO:

DEPT WATER RESOURCES
222 SHOSHONE ST EAST
TWIN FALLS
ID 83301

RECEIVED
AUG 30 1991
Department of Water Resources
Southern Region Office

NOTICE: This is an invoice of Purchase made by you. Statement will be rendered the first of the month.
Please Retain This Invoice as Your Statement Will Refer To Invoice by No. Only.

AFFIDAVIT OF PUBLICATION

04575

NOTICE OF APPLICATION FOR TRUST WATER RIGHT
47-08271

MILLER ENTERPRISES INC., J.M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt:
SESENE Sec 13 T 09S R 15E
Use: STOCKWATER (.050 CFS0
FISH PROPAGATION
(4.500 CFS
POWER (20.000 CFS)
Total Diversion:
(20.000 CFS)
Date Filed: 4/24/ 1991
In: TO9S R15E S13 NENE
SENE

The permits will be subject to all prior water rights. Protests must be filled with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before September 2, 1991.

R. KEITH HIGGINSON,
Director

OK
MB
9/17/91

RECEIVED
AUG 30 1991
Department of Water Resources
Southern Region Office

SCANNED
NOV 29 1993

STATE OF IDAHO, ss.
County of Nez Perce

Sue Baumeister, being duly sworn, deposes and says, I am the Legal Clerk of the Tribune Publishing Company, a corporation organized and existing under and by virtue of the laws of the State of Idaho, publishers of the LEWISTON MORNING TRIBUNE, a newspaper of general circulation published at Lewiston, Nez Perce County, Idaho; That the said Lewiston Morning Tribune is an established paper and has been published regularly and issued regularly at least once a day for more than 21 consecutive years next immediately preceding the first publication of this notice, and has been so published uninterrupted for said period; that the

NOTICE OF APPLICATION FOR

attached hereto and which is made a part of this affidavit was published in the said Lewiston Morning Tribune, 2 time(s). Publication being on 081591, or once a WEEK for 2 consecutive WEEKS, the first publication thereof being on the 081591, and the last publication thereof being on the 082291, and said NOTICE OF APPLICATION FOR was so published in the regular and entire issue of said newspaper and not in a supplement thereof and was so published in every issue and number of the said paper, during the period and times of publication as set forth above.

Sue Baumeister

SUBSCRIBED AND SWORN BEFORE ME THIS THE 28 day of August 1991

Sheral M Lantz

Notary Public in and for the State of Idaho, residing at Lewiston, therein.

The Idaho Statesman

P.O. BOX 40, BOISE, IDAHO 83707

LEGAL ADVERTISING INVOICE

Amount Due
34.32

Account Number	Identification
100632	App/Trust Water Right

Ordered By	P.O. Number	Rate	Run Dates
Mary Baldwin		NT	August 15 and 22, 1991

State of Idaho
Department of Water Resources
Southern Region
222 Shoshone Street East
Twin Falls, Idaho 83301

Estimated Inches	Real Inches
# Affidavits	Legal Number
1	9138

NOTICE OF APPLICATION FOR TRUST WATER RIGHT
47-08271
MILLER ENTERPRISES INC., J. M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use:
STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.000 CFS)
Date Filed: 4/24/1991
In: T09S R15E S13 NENE SENE
The permit(s) will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before SEPTEMBER 2, 1991.
R. KEITH HIGGINSON, Director
Pub. Aug. 15, 22, 1991 9138

OK
NB
9/17/91

Jill Roberts, being duly sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto; that said notice was published in The Idaho Statesman in conformity with Section 60-108, Idaho Code as amended, for two

☐ consecutive weekly ☐ consecutive daily ☐ single ☐ odd skip

insertion(s) beginning with the issue of August 15, 1991

and ending with the issue of August 22, 1991

Jill Roberts

STATE OF IDAHO)
ss.
COUNTY OF ADA)

On this 22nd day of August in the year of 1991 before me, a Notary Public, personally appeared Jill Roberts, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that she executed the same.

Notary Public for Idaho
Residing at Boise, ID
My commission expires: 12/93

RECEIVED
AUG 23 1991
Department of Water Resources
Southern Region Office

RECEIVED
NOV 29 1993

The Idaho Statesman

P.O. BOX 40, BOISE, IDAHO 83707

LEGAL ADVERTISING INVOICE

Amount Due
18.66

Account Number	Identification
100632	App/Trust Water Right

Ordered By	P.O. Number	Rate	Run Dates
Mary Baldwin		NT	1991 August 1 & ~~8, 1991~~ cancelled

State of Idaho
Department of Water Resources
Southern Region
222 Shoshone Street East
Twin Falls, Idaho 83301

Estimated Inches	Real Inches
# Affidavits	Legal Number
1	9051

NOTICE OF APPLICATION FOR TRUST WATER RIGHT
47-08271

MILLER ENTERPRISES INC.,
J. M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use:
STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.000 CFS)
Date Filed: 4/24/1991
In: T09S R15E S13 NENE SENE
The permit(s) will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before AUGUST 19, 1991.
R. KEITH HIGGINSON, Director
Pub. Aug. 1, 8, 1991 9051

OK MB 9/17/91

RECEIVED
AUG 12 1991
Department of Water Resources
Southern Region Office

Jill Roberts, being duly sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto; that said notice was published in The Idaho Statesman in conformity with Section 60-108, Idaho Code as amended, for one

☒ consecutive weekly ☐ consecutive daily ☐ single ☐ odd skip

insertion(s) beginning with the issue of August 1, 1991

and ending with the issue of August 1, 1991

Jill Roberts

STATE OF IDAHO)
ss.
COUNTY OF ADA)

On this 7th day of August in the year of 1991, before me, a Notary Public, personally appeared jill Roberts, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that she executed the same.

Janice Madee
Notary Public for Idaho
Residing at Boise, ID
My commission expires: 5/97

RECEIVED
NOV 29 1993

NOTICE OF APPLICATION FOR WATER RIGHT

The Following application(s) have been filed to appropriate the public waters of the State of Idaho:

47-08271
MILLER ENTERPRISES INC., J.M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE
Sec 13 T 09S R 15E
Use: STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion (20.000 CFS)
Date Filed: 4/24/1991
In: T09S R15E S13 NENE SENE

The permit(s) will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before JULY 9, 1991.

R. KEITH HIGGINSON
Director
PUBLISH: Thursday, June 20 and 27, 1991.

Affidavit of Publication

№ 22522

RECEIVED
JUL 1991
Department of Water Resources
Southern Region ORS

STATE OF IDAHO }
COUNTY OF TWIN FALLS } SS.

I, Linda Coppe McGuire being first duly sworn upon oath, depose and say that I am Legal Clerk of the TIMES-NEWS, published daily, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for Two consecutive Weeks, commencing with the issue dated June 20, 1991, and ending with the issue dated June 27, 1991.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 31, 1978, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO
COUNTY OF TWIN FALLS

On this 27 day of June in the year of 1991, before me, a Notary Public, personally appeared Linda Coppe McGuire, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

PUBLISHED

Notary Public for Idaho
Residing at Twin Falls Id
My commission expires: 8-8-96

OK MB 7-3-91

NOV 29 1993

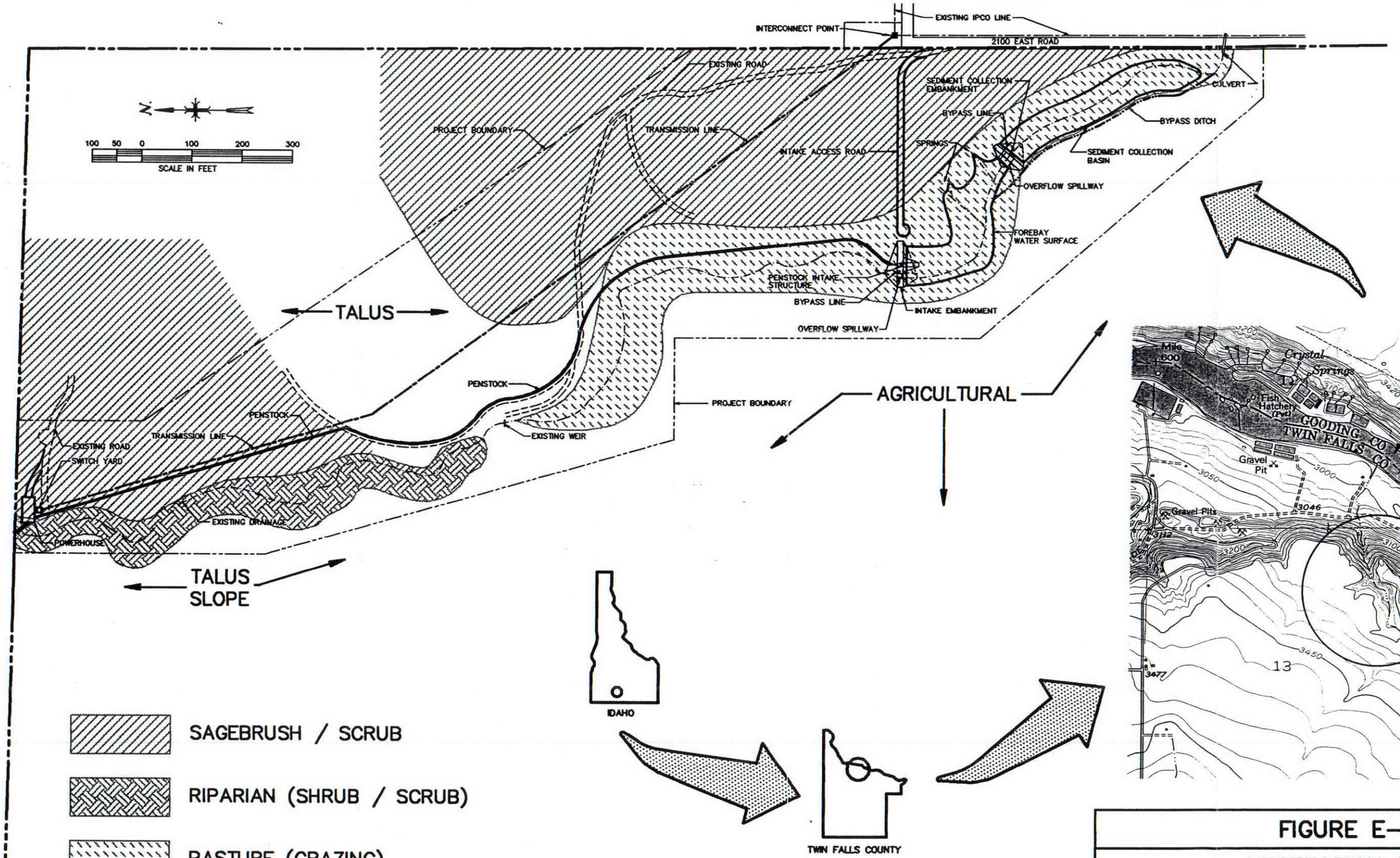
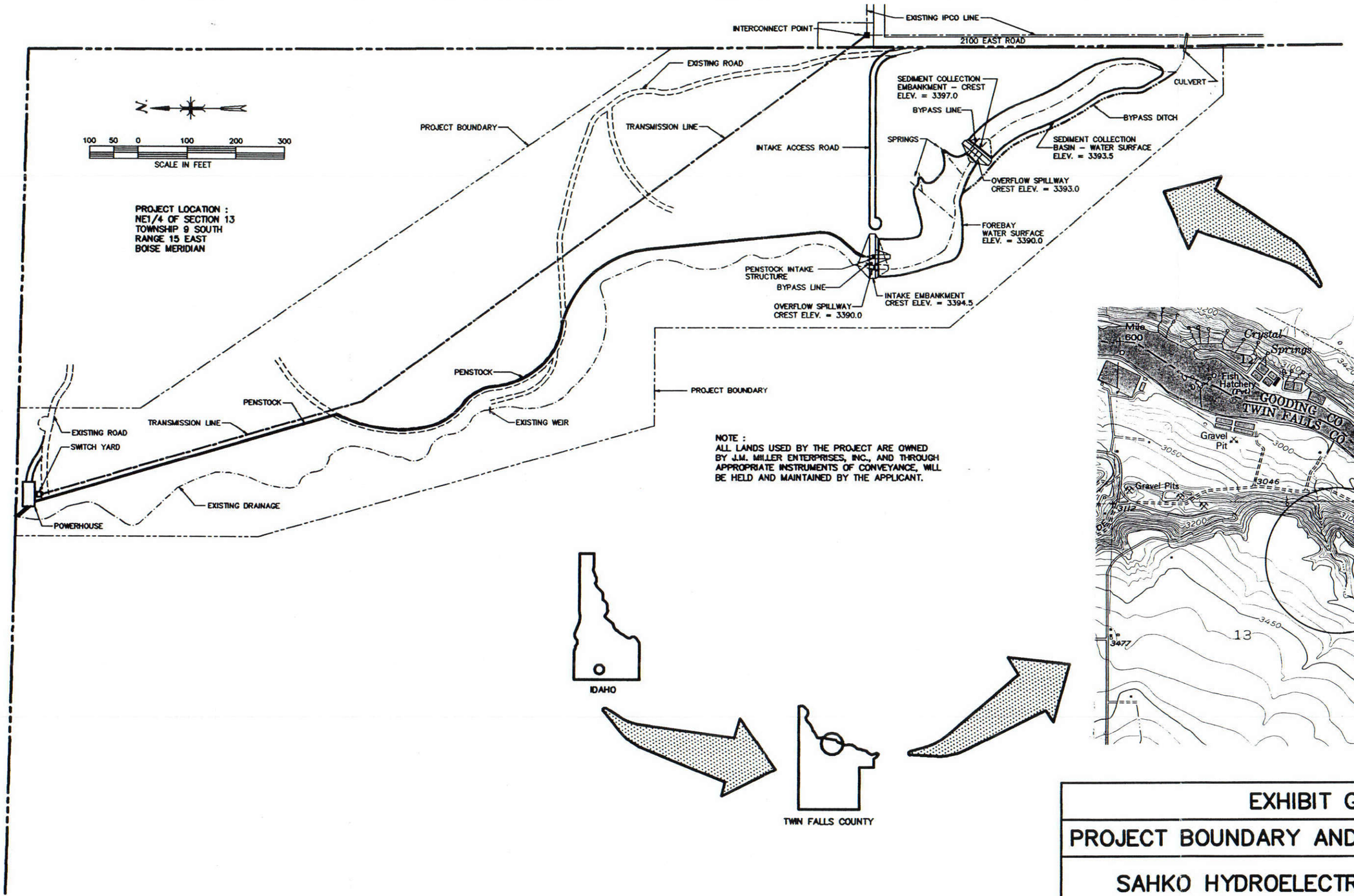


FIGURE E–1

VEGETATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT



REVISED 3-16-93

EXHIBIT G

PROJECT BOUNDARY AND LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

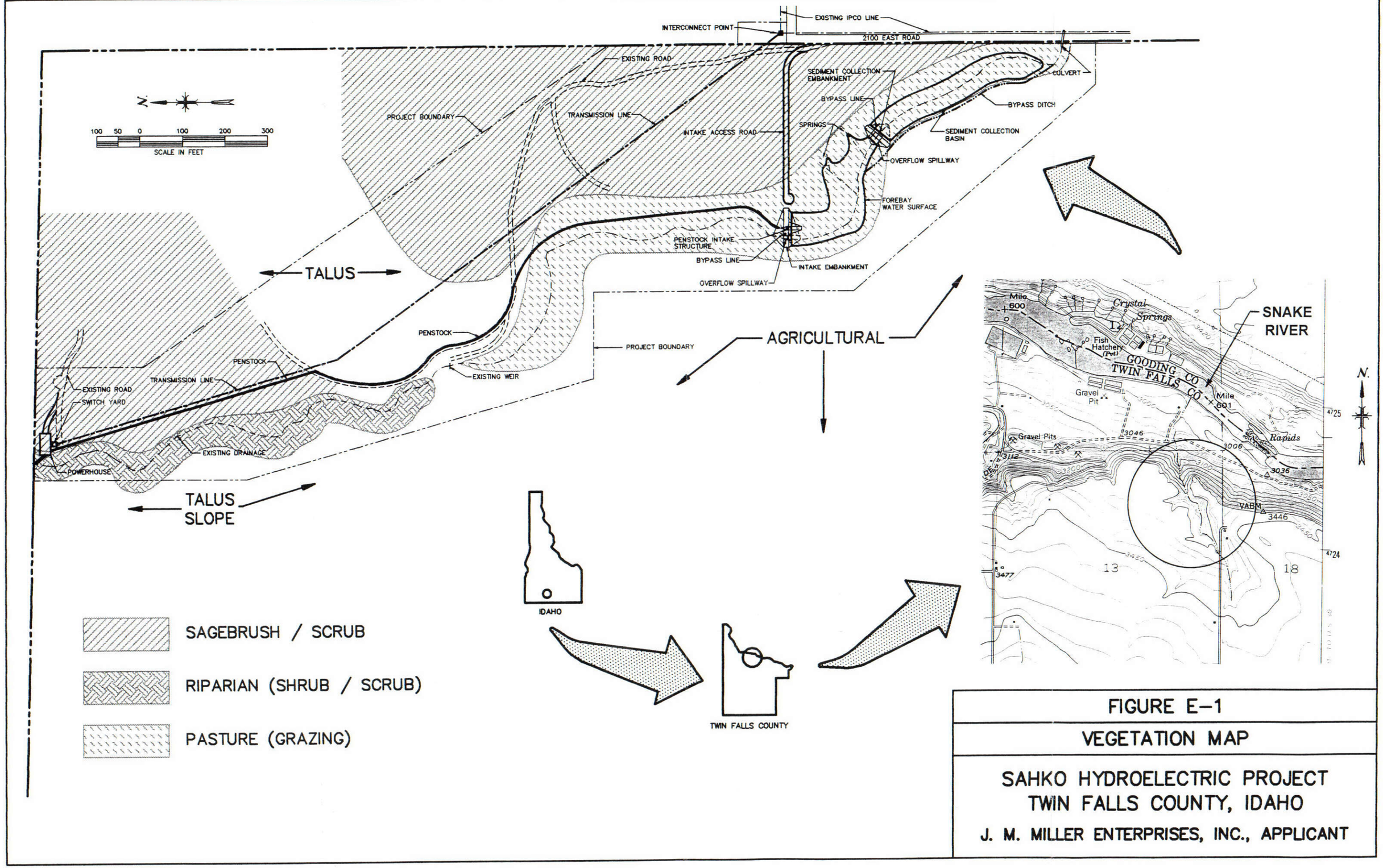


FIGURE E–1

VEGETATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

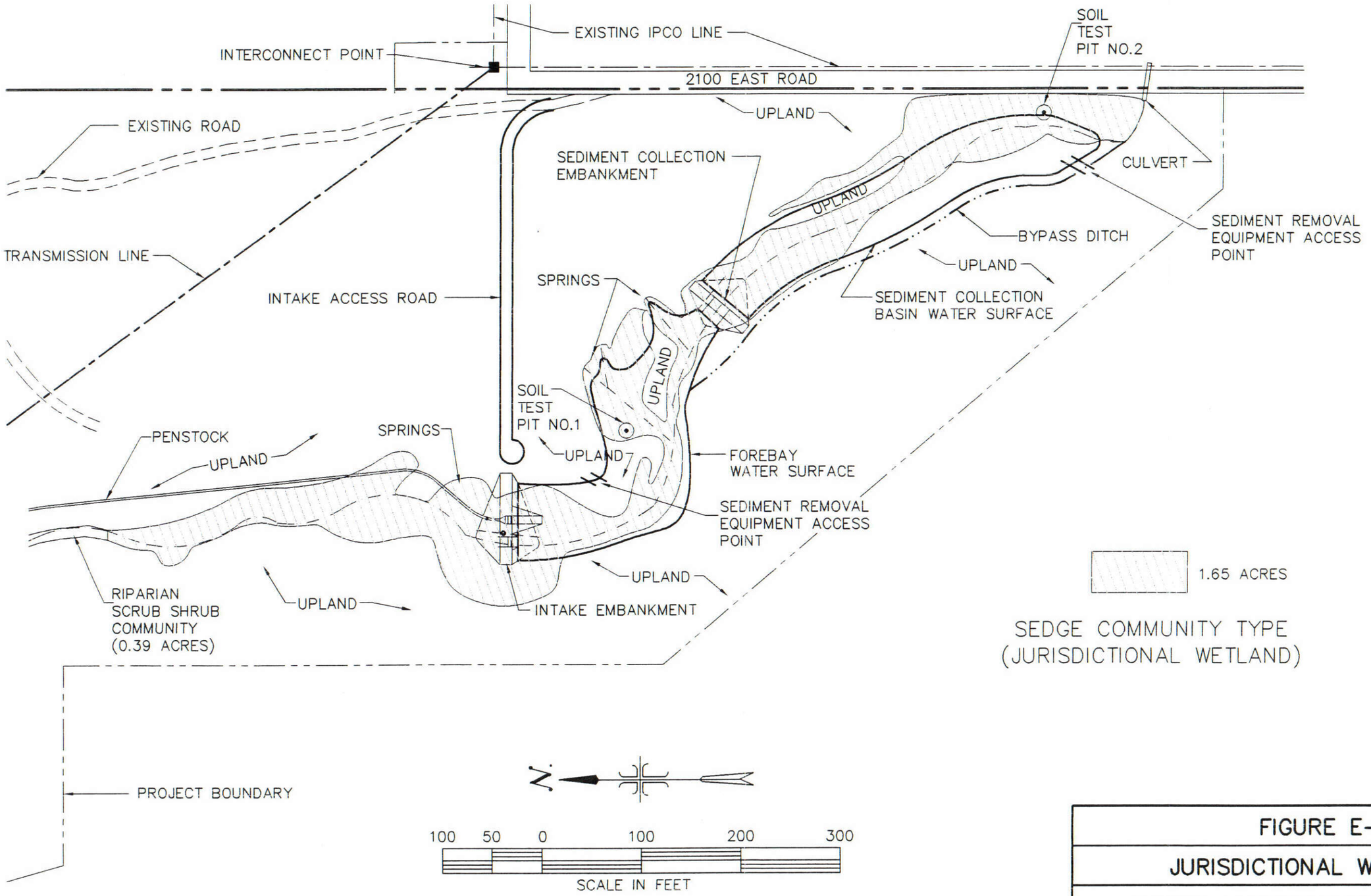


FIGURE E–2

JURISDICTIONAL WETLANDS

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J.M. MILLER ENTERPRISES, INC., APPLICANT

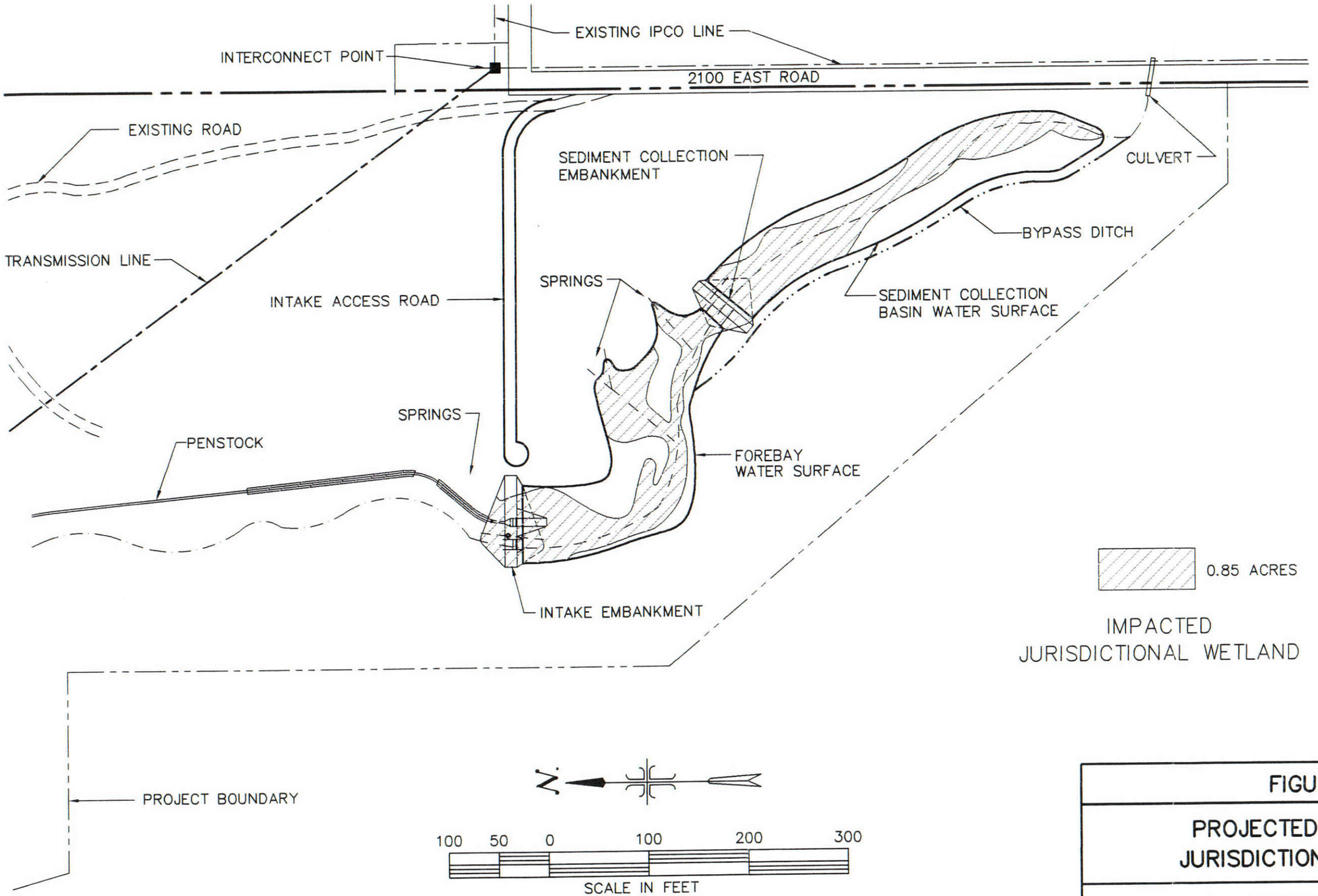


FIGURE E-3

PROJECTED IMPACTS TO JURISDICTIONAL WETLANDS

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J.M. MILLER ENTERPRISES, INC., APPLICANT

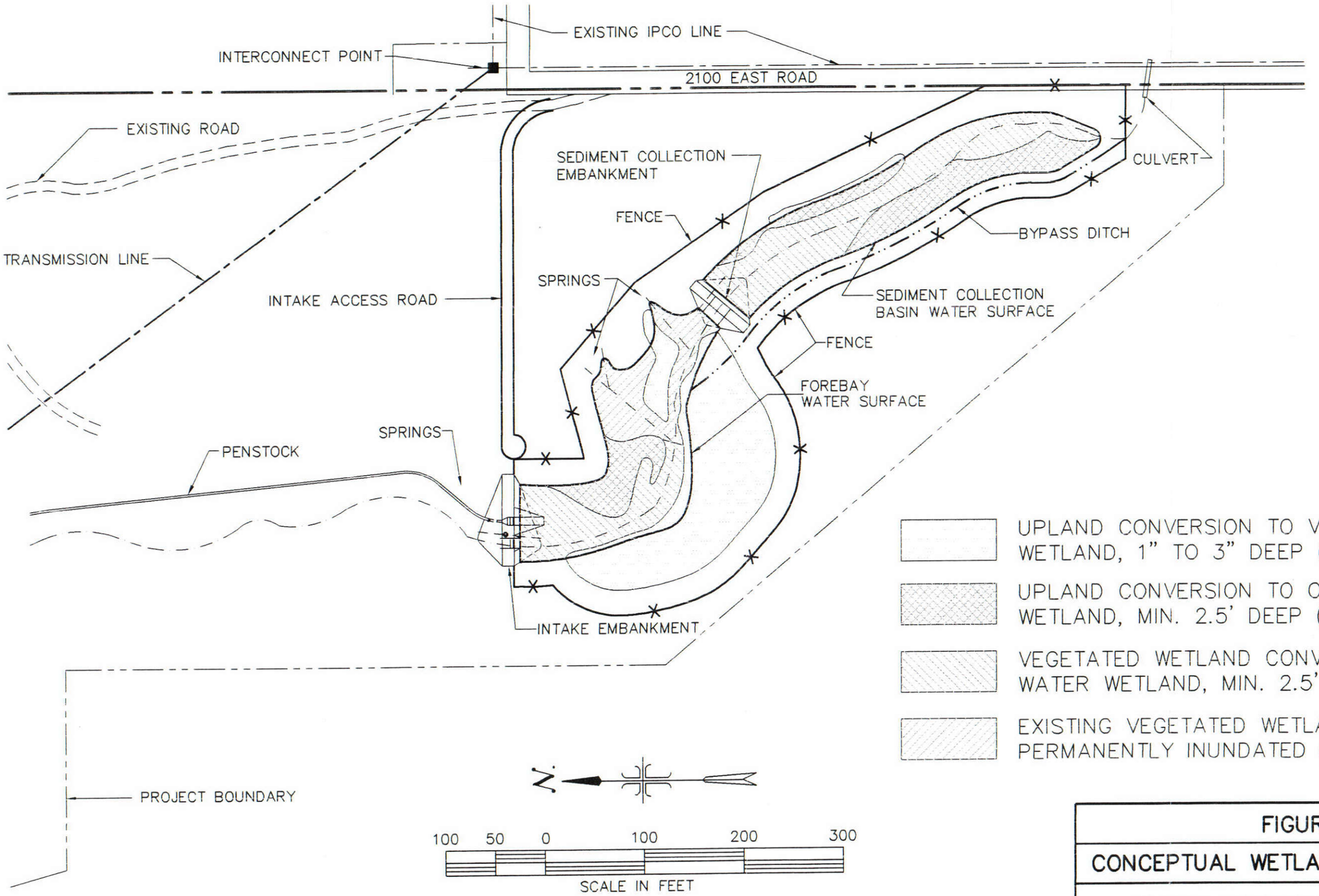
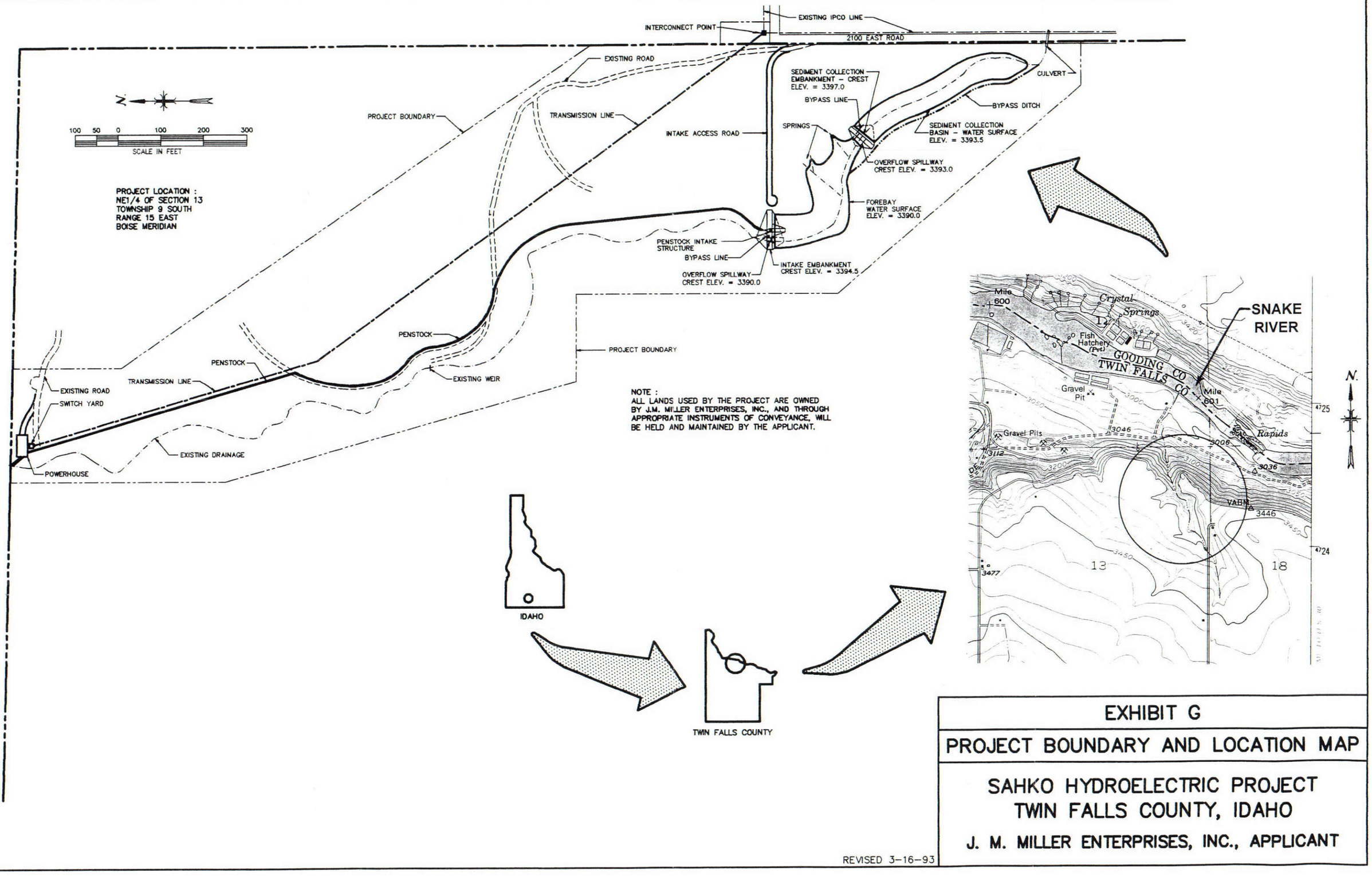


FIGURE E-4

CONCEPTUAL WETLAND MITIGATION PLAN

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J.M. MILLER ENTERPRISES, INC., APPLICANT



REVISED 3-16-93

EXHIBIT G

PROJECT BOUNDARY AND LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT



Figure 1



Figure 2

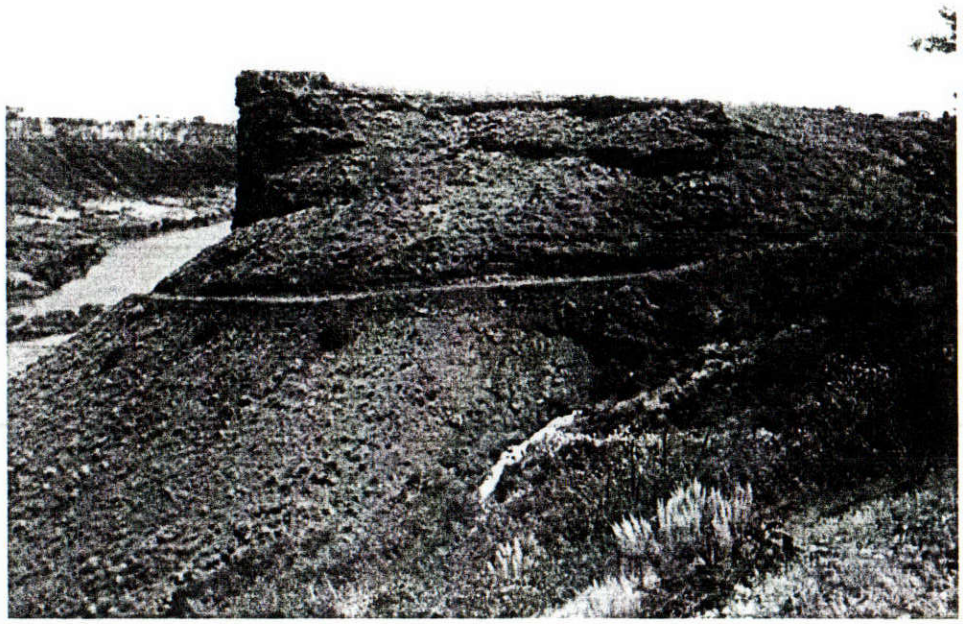


Figure 3



Figure 4



Figure 5

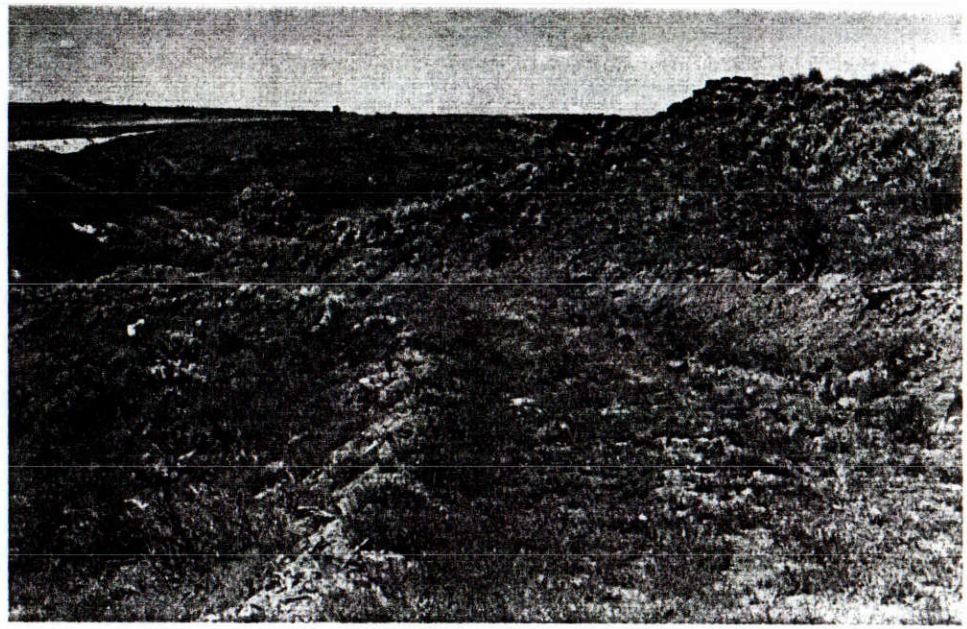


Figure 6

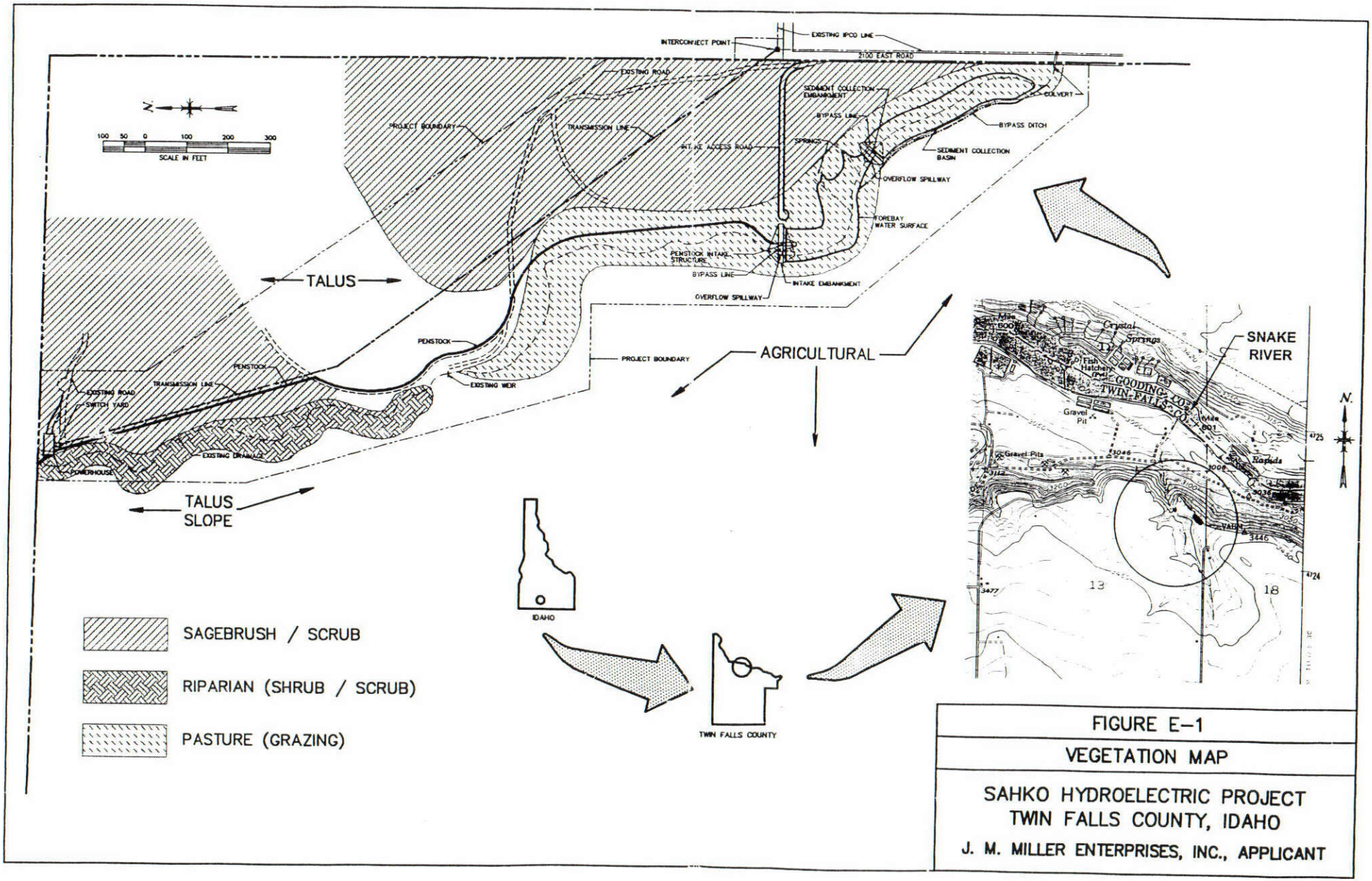
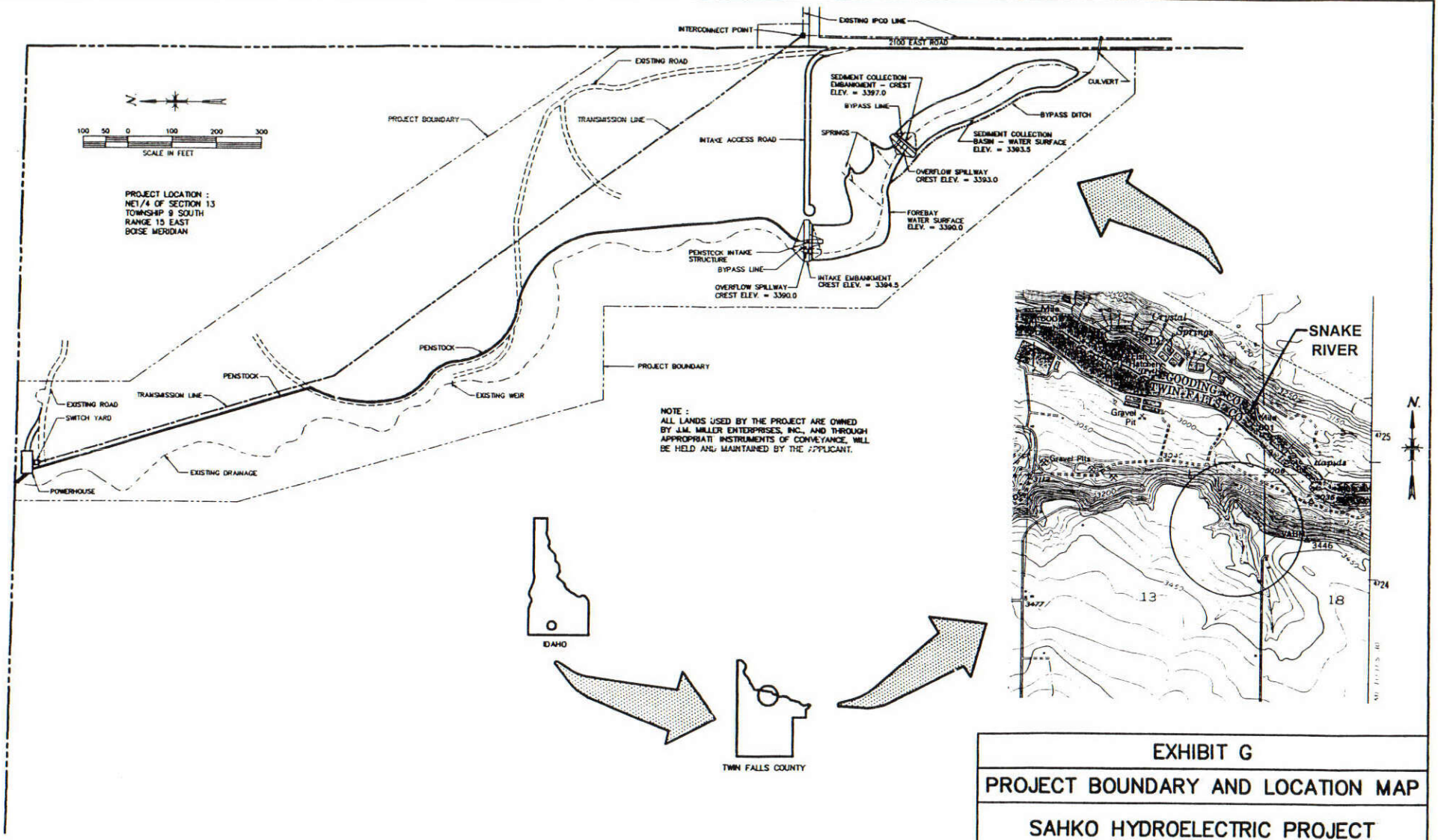


FIGURE E–1

VEGETATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT



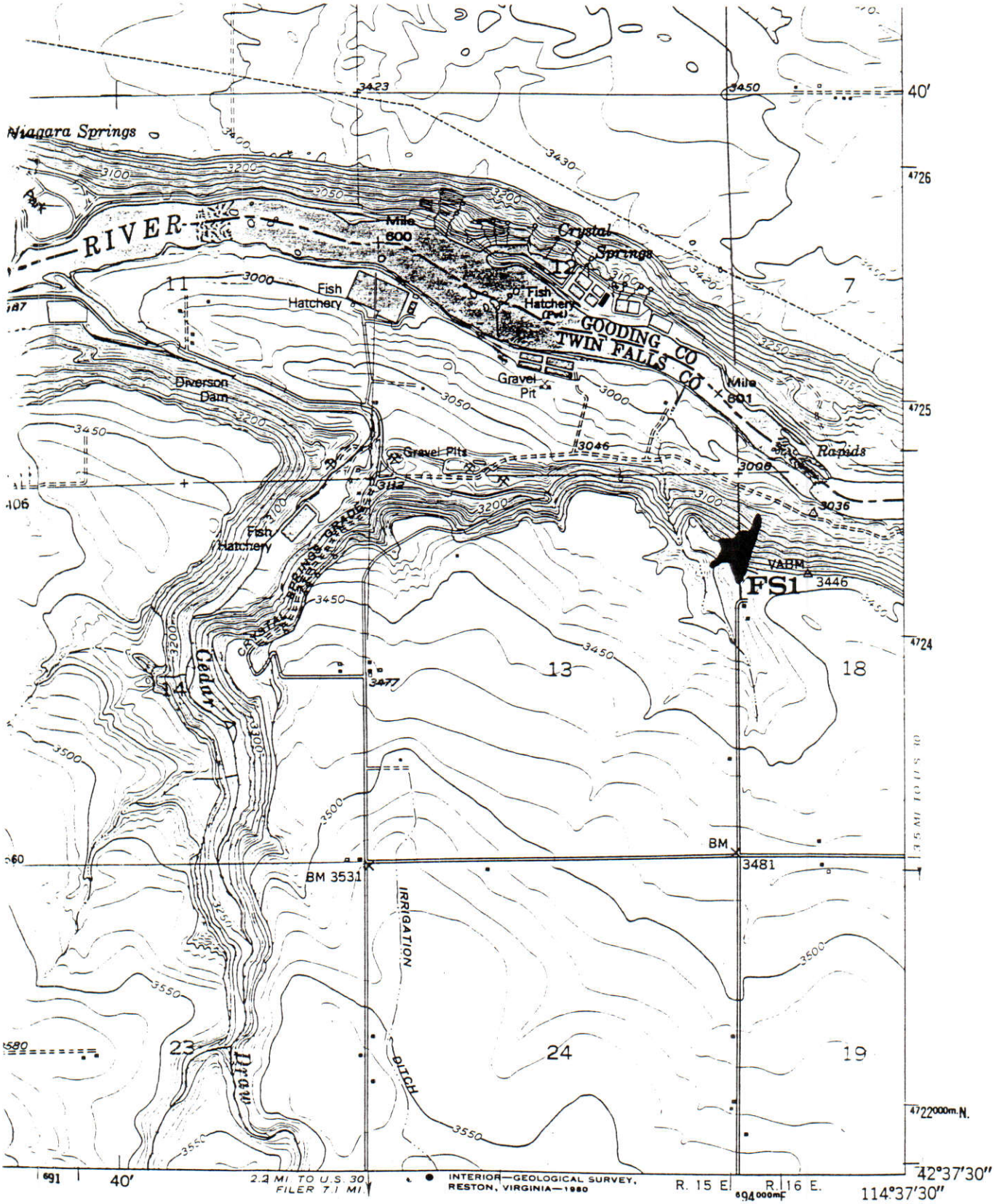
REVISED 3-16-93

EXHIBIT G

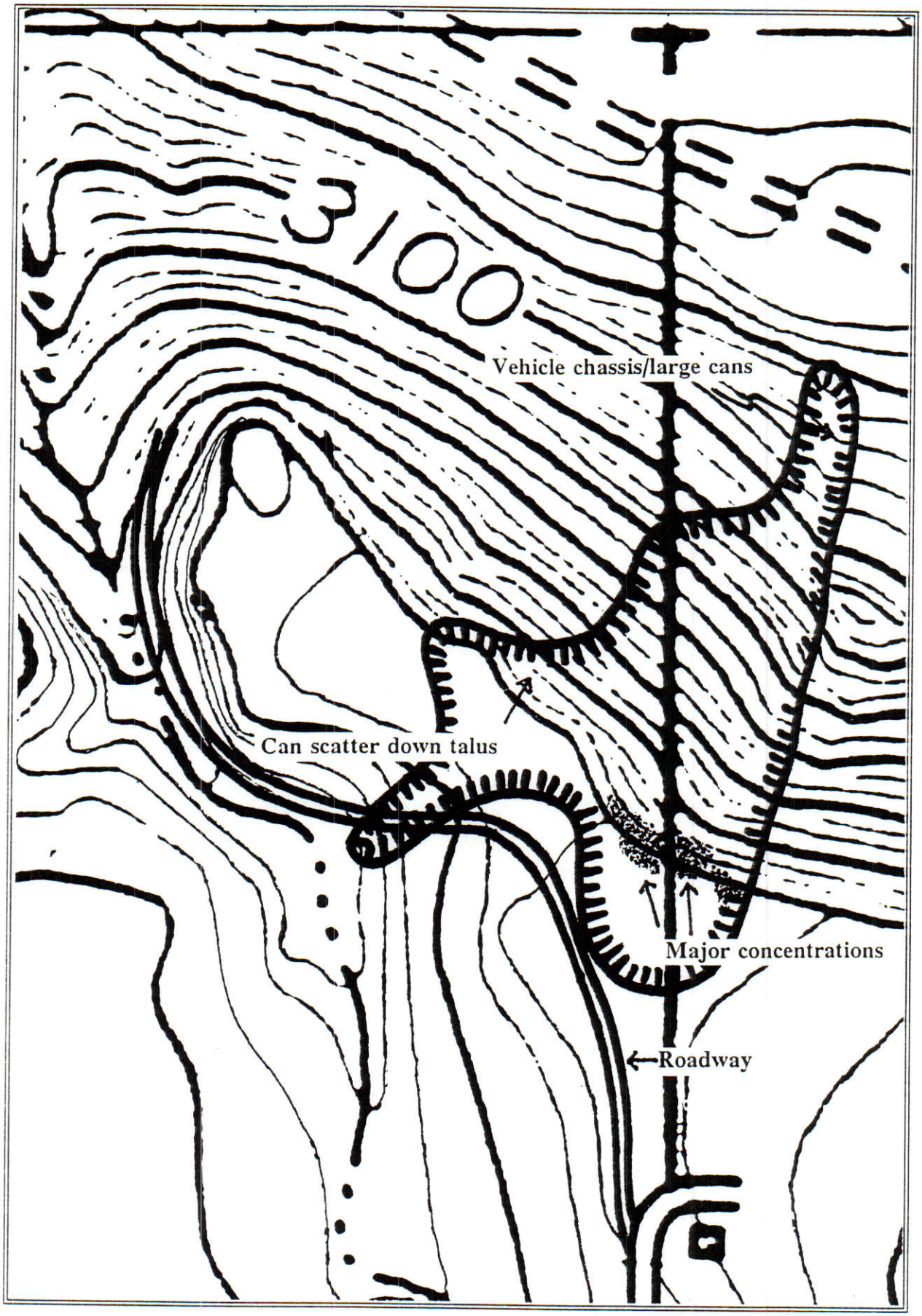
PROJECT BOUNDARY AND LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT



Map 1. Detail of U.S.G.S. "Niagara Springs" 7.5' map showing location of FS-1, a historic trash dump.



Map 2. Sketch map of FS-1.



Figure 7

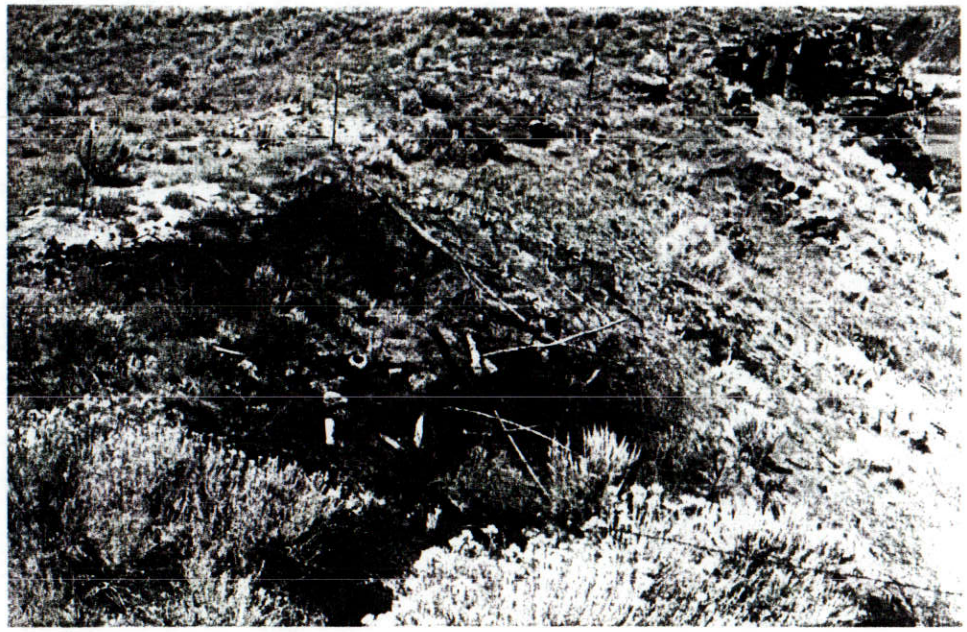


Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13



Figure 14



Figure 15

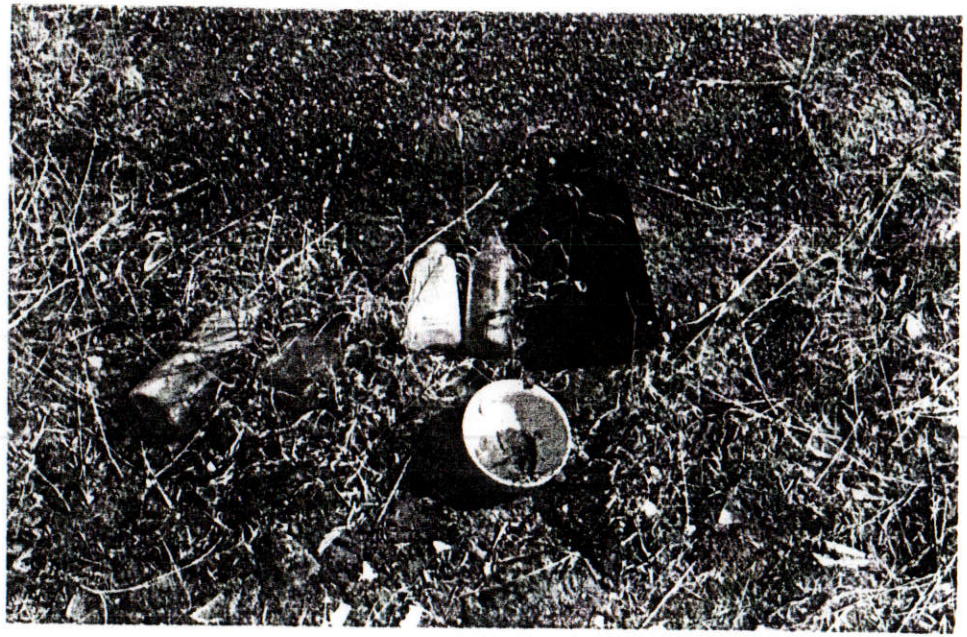


Figure 16



Figure 17

IDAHO ISOLATED FIND REPORT

State No. 10

Site/Project Name Sahko Hydro Project, Miller Field No. IF-1

Recorder James C. Woods Date 8-20-93

USGS Quad Niagara Springs, Idaho 19 79 County Twin Falls

T 9 S R 15 E Sec. 13 NE¼ of SW¼ of NE¼ of NE¼

UTM: Zone 11 E 693850 N 4724430

Elevation 3390' Topography Base of Snake River rimrock

Nearest Water Snake River, ca. 0.5 miles @ 0°

Vegetation Very sparse cheatgrass, small sage

Access From intersection of US 93 and Pole Line Road (north edge of Twin Falls City limits at Costco corner) take Pole Line Road 9 miles to the west, turn north 3.7 miles to end of gravel roadway to project area at left of end of roadway in shallow ravine. Find located on west side of topographic projection in center of project area.

Landowner J.M. Miller Dist/Forest Private

Collected? ___ Yes _XX_ No Repository Not Collected

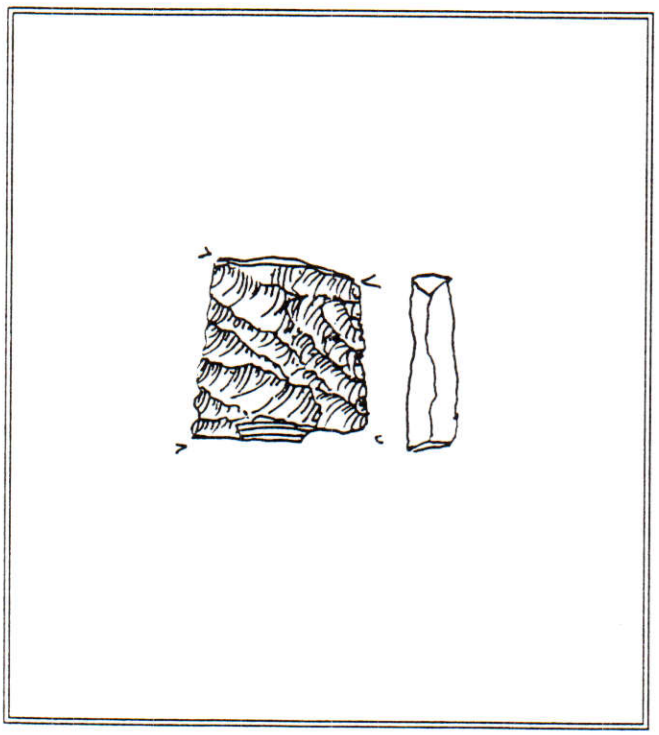
Comments, References, Known Sites in Area Crystal Springs Site (re: Kelley Murphey, located directly north across Snake River)

Artifact Lanceolate point fragment, parallel-flaked, oblique.

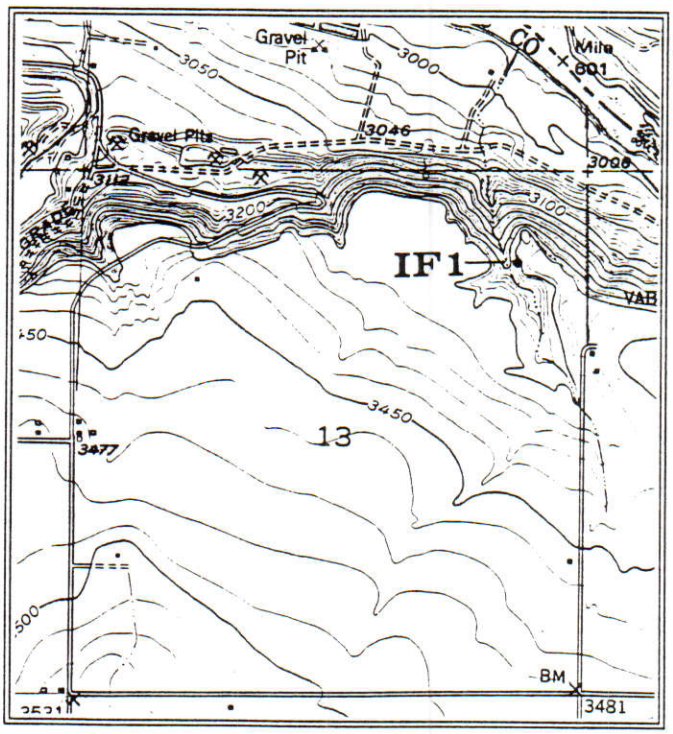
Function/Description/Cultural Affiliation Mid-section of thrusting spear or dart point, bend breaks at both ends.

Material Black, opaque obsidian Dimensions 2.4 x 2.3 x 0.7 cm

Artifact Sketch



USGS Section



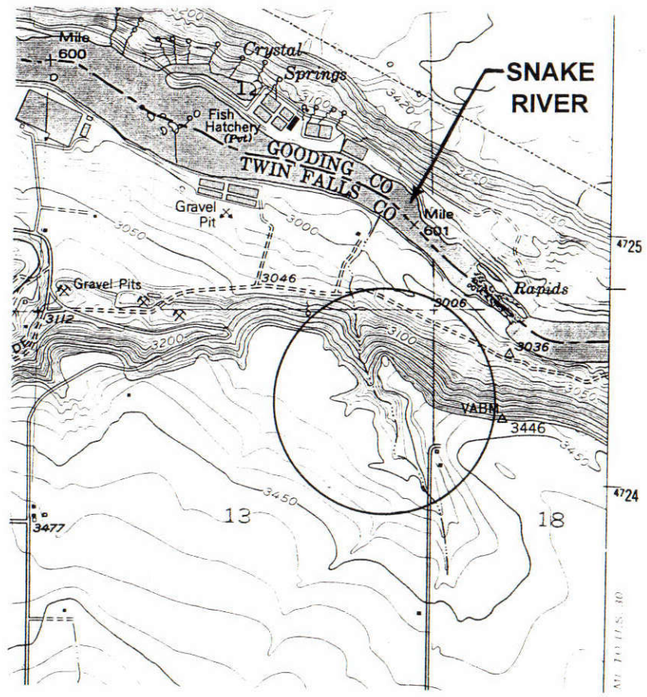
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12 13

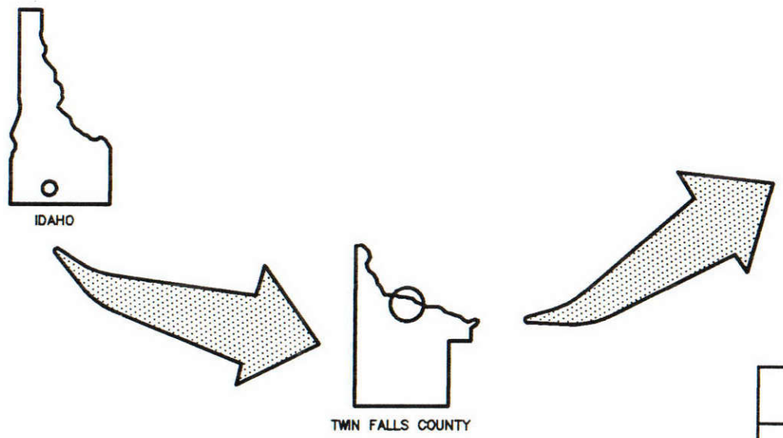
N

100 50 0 100 200 300
SCALE IN FEET

PROJECT LOCATION :
NE1/4 OF SECTION 13
TOWNSHIP 9 SOUTH
RANGE 15 EAST
BOISE MERIDIAN

INTERCONNECT POINT
EXISTING IPCO LINE
2100 EAST ROAD
EXISTING ROAD
TRANSMISSION LINE
INTAKE ACCESS ROAD
SEDIMENT COLLECTION EMBANKMENT – CREST ELEV. = 3397.0
BYPASS LINE
SPRINGS
CULVERT
BYPASS DITCH
SEDIMENT COLLECTION BASIN – WATER SURFACE ELEV. = 3393.5
OVERFLOW SPILLWAY CREST ELEV. = 3393.0
FOREBAY WATER SURFACE ELEV. = 3390.0
PENSTOCK INTAKE STRUCTURE
BYPASS LINE
OVERFLOW SPILLWAY CREST ELEV. = 3390.0
INTAKE EMBANKMENT CREST ELEV. = 3394.5
PENSTOCK
PENSTOCK
TRANSMISSION LINE
EXISTING WEIR
EXISTING ROAD
SWITCH YARD
EXISTING DRAINAGE
POWERHOUSE





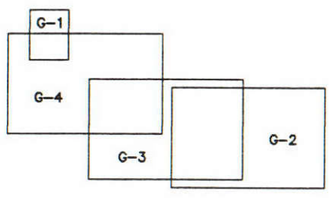


EXHIBIT " G" KEY

REVISED 6–30–94
REVISED 3–16–93

EXHIBIT G–1

PROJECT LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

TWIN FALLS CANAL COMPANY

TWIN FALLS, IDAHO

SYSTEM MAP

AUGUST, 1986

R.19 E. R.20 E. R.21 E.

MATCH LINE SEE EXHIBIT G-3

HANSEN BRIDGE

MAIN CANAL

TWIN FALLS CANAL SYSTEM DIVERSION

SNAKE RIVER

MILNER LAKE

MILNER DAM

MURTAUGH

U.P.R.R.

U.S. HWY 30

HWY 30

HANSEN

TWIN FALLS

TWIN FALLS COULEE

DRY CREEK

MURTAUGH LAKE

COTTONWOOD CREEK

T10S

T11S

N.

3000 1500 0 3000 6000 9000

SCALE IN FEET

LEGEND

- COULEE (With Identification)
- LATERAL (With Identification)
- DRAIN
- PIPE
- MAIN CANAL
- COUNTY ROAD
- HYDROELECTRIC POWER PLANT
- TELEMETRY GAGE STATION
- RECORDER GAGE STATION

EXHIBIT G-2

AREA MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

R.17 E.

R.18 E.

R.19 E

T 10 S

T 11 S

N.

3000 1500 0 3000 6000 9000
SCALE IN FEET

MATCH LINE
SEE EXHIBIT G-2

MATCH LINE
SEE EXHIBIT G-4

PERRINE BRIDGE

SNAKE RIVER

SHOSHONE FALLS

DIERKES LAKE

TWIN FALLS

HANSEN BRIDGE

TWIN FALLS

KIMBERLY

HANSEN

SIERRA

TWIN FALLS AIRPORT

PERRINE #1

PERRINE #2

PERRINE #3

PERRINE

ROCK CREEK

COULEE

TWIN FALLS CANAL

MAIN CANAL

HIGH LINE CANAL

LOWER LINE CANAL

U.S. HWY 93

U.S. HWY 30

STATE HWY 74

BLUE LAKES BLVD.

UPRR

TFC1

TFC2

TFC3

KPL

EXHIBIT G-3

AREA MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

R.15 E. R.16 E. R.17 E. R.18 E.

T9S

T10S

PROJECT LOCATION
SEE EXHIBIT G-1

MATCH LINE
SEE EXHIBIT G-3

N.

3000 1500 0 3000 6000 9000
SCALE IN FEET

RIVER
MATHEWS
HOLMES
WALTER BROWN
CEDAR DRAW
U.P.R.R.
RECTOR
GRAVEY
ROCK CREEK
U.S. HWY 93
O.A.R.R.
ANNIS
TWIN FALLS
PERRINE BRIDGE
SNAKE RIVER
SHOSHONE FALLS
DIERKES LAKE
PERRINE #1
PERRINE #2
PERRINE #3
PERRINE
HWY 93A
U.S. HWY 30
COULEE
TFC1
TFC2
TFC3
38 SPILL
CANAL
LINE
STATE HWY 74
DRAW

EXHIBIT G-4

AREA MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

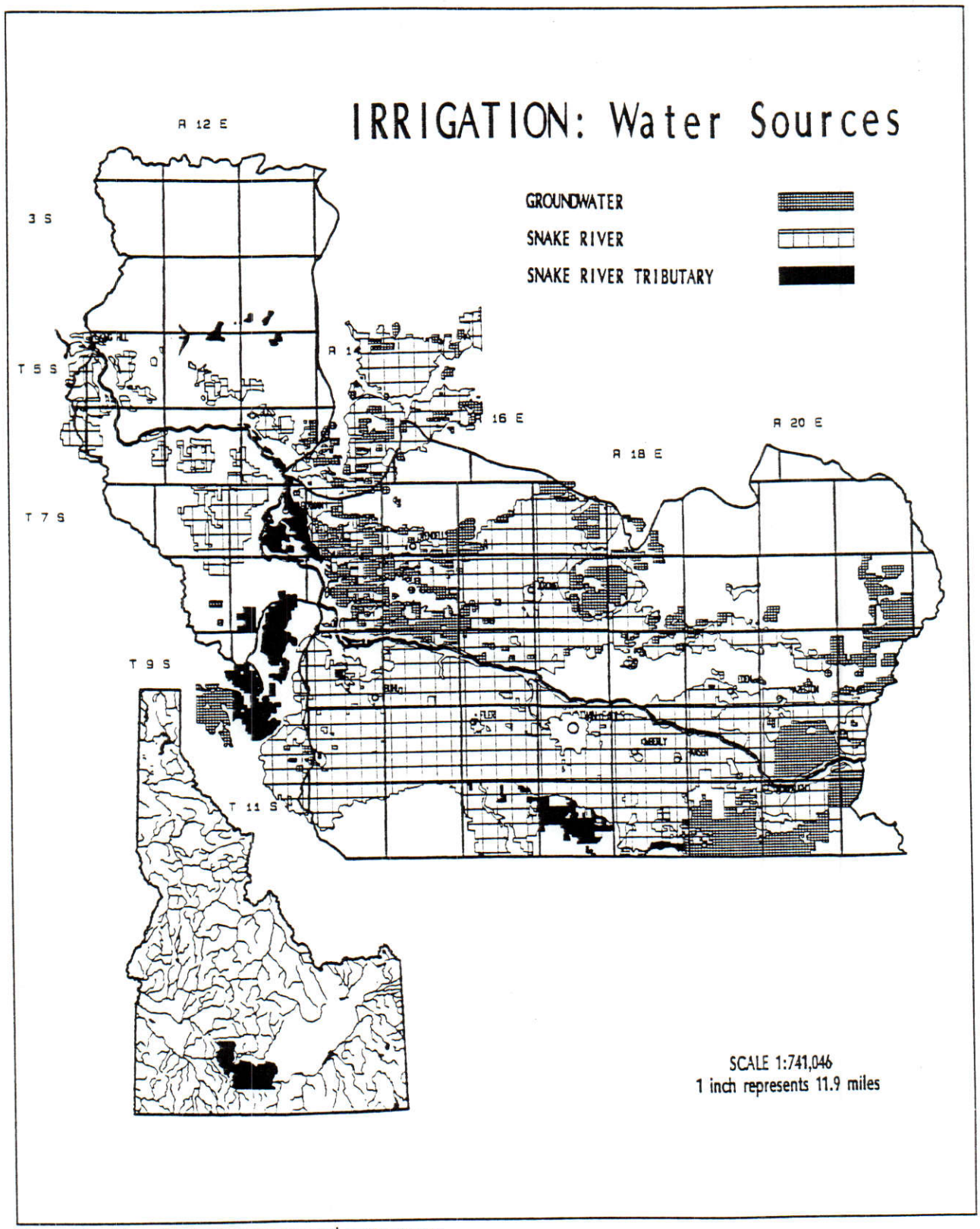
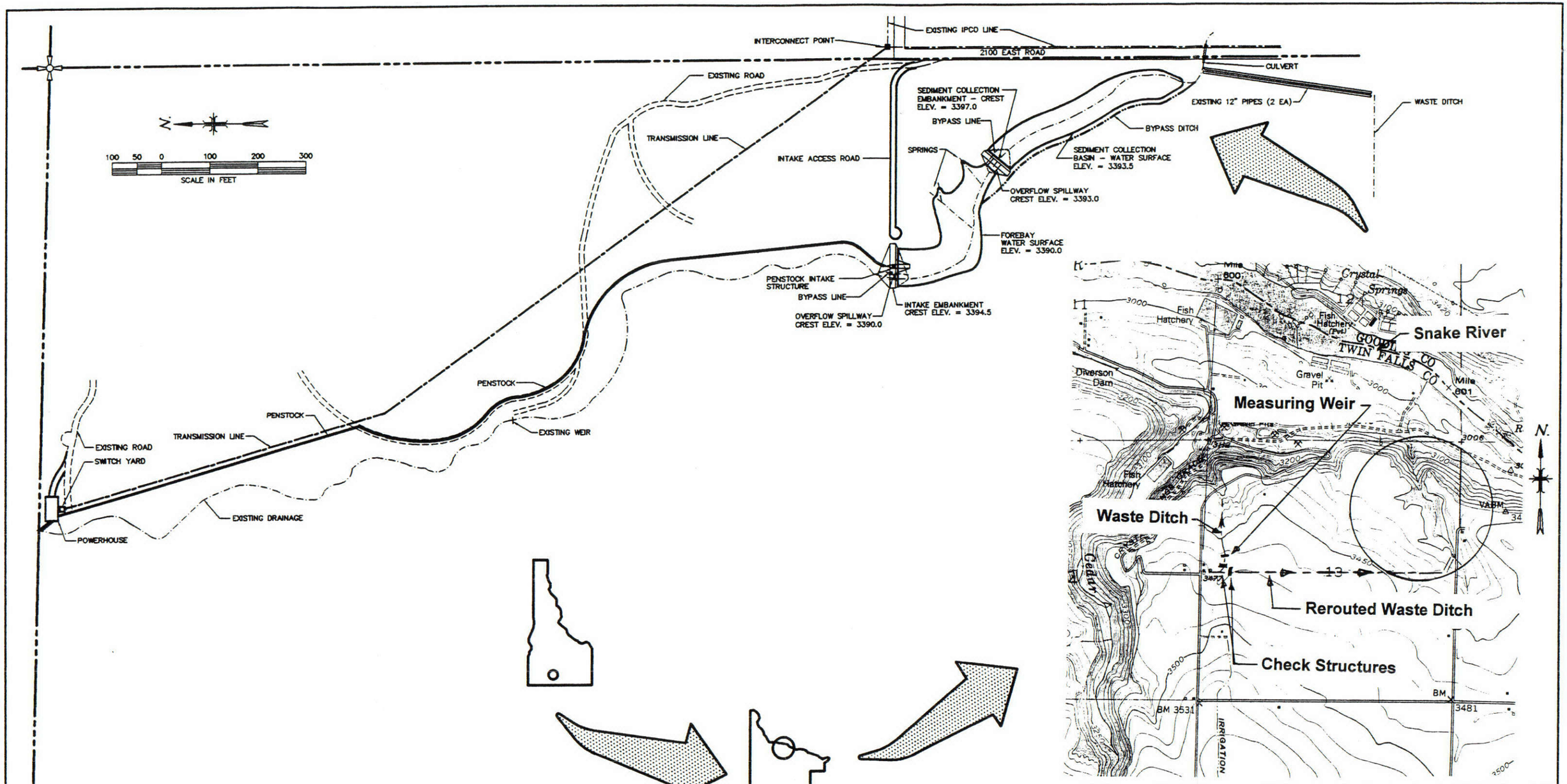


Figure 11. Map of irrigation acreage and water source.



REVISED 9-29-97
REVISED 6-30-94
REVISED 3-16-93

EXHIBIT G-1

PROJECT LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

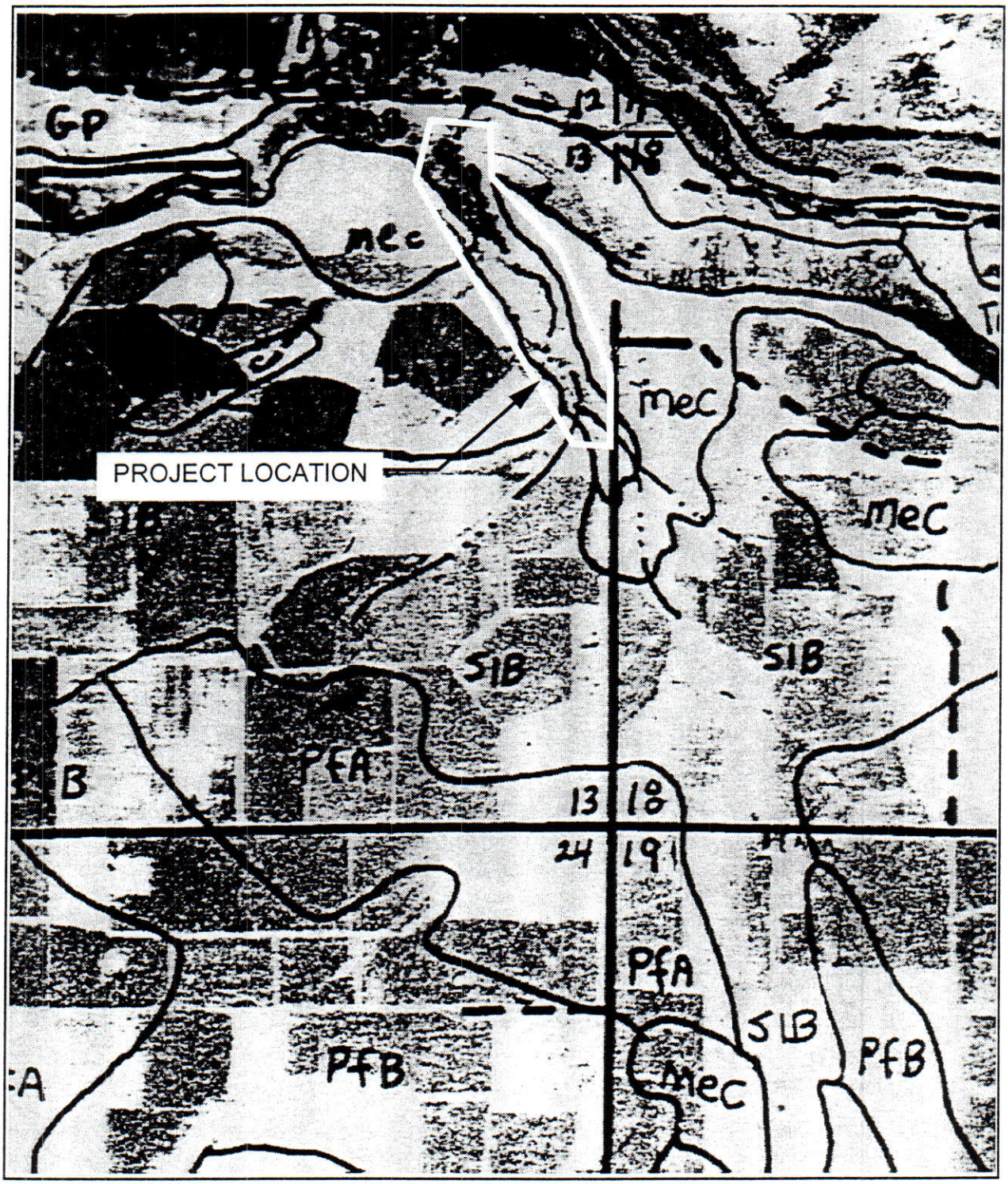
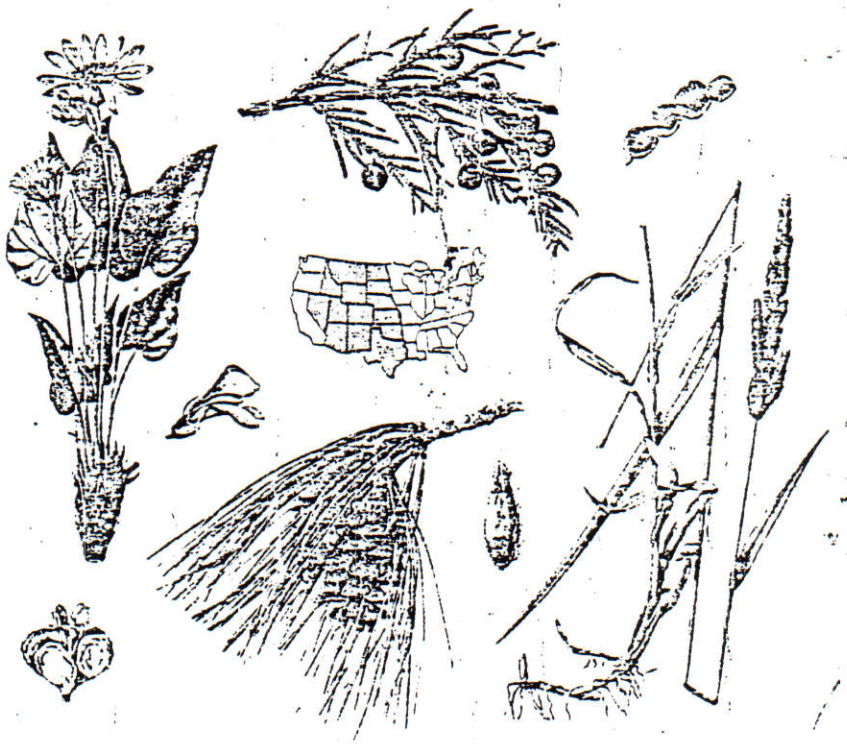


Figure 1. Soil unit map in the Sahko Hydropower project vicinity. Source: Natural Resources Conservation Service.

Biological Services Program

FWS/OBS-82/56
SEPTEMBER 1982

ECOLOGY AND CULTURE OF SELECTED SPECIES USEFUL IN REVEGETATING DISTURBED LANDS IN THE WEST



Fish and Wildlife Service
U.S. Department of the Interior

PHILLIPS PETROLEUM COMPANY

NATIONAL TECHNICAL
INFORMATION SERVICE

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

AMENDMENT OF PERMIT

PERMIT NO. 47-08271

This is to certify, that J M MILLER ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 83303-0595
has requested a change to the above captioned water right(s). This change in water right(s) is authorized pursuant to the provisions of Section 42-211, Idaho Code. The approved amendment of permit is described as follows:

SOURCE

UNNAMED STREAM	tributary to	**SNAKE RIVER**
WASTE WATER	tributary to	**SNAKE RIVER**

Priority: April 24, 1991

BENEFICIAL USE	PERIOD OF USE	RATE OF DIVERSION
STOCKWATER	01/01 to 12/31	0.05 CFS
POWER	01/01 to 12/31	20.00 CFS
	Totals	20.00 CFS

LOCATION OF POINT(S) OF DIVERSION: SENE , Sec. 13, Township 09S, Range 15E
SWNW , Sec. 13, Township 09S, Range 15E
TWIN FALLS County

PLACE OF USE: STOCKWATER

TWN	RGE	SEC		
09S	15E	13	NENE	SENE

PLACE OF USE: POWER

TWN	RGE	SEC	
09S	15E	13	NENE

CONDITIONS OF APPROVAL AND REMARKS

1. Proof of construction of works and application of water to beneficial use shall be submitted on or before **November 1, 2002.**
2. Subject to all prior water rights.
3. Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.
4. Diversion and use of water under this right is subject to an annual use fee if rules are subsequently promulgated which provide for the submittal of the fee.

MICROFILMED
NOV 0 6 1998

PERMIT NO. 47-08271

CONDITIONS OF APPROVAL AND REMARKS

5. The Director retains jurisdiction over this right and may change, add, or remove any requirement as determined to be appropriate.
6. This right is subject to the provisions of Sections 42-205 through 42-210, Idaho Code, restricting the sale, transfer, assignment, or mortgage of this right. Failure to comply with these provisions is cause for immediate cancellation of this right.
7. The water right acquired under this permit for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.
8. This right does not constitute Idaho Public Utilities Commission or Federal Energy Regulatory Commission approval that may be required.
9. The right holder shall install a measuring device that can be used to determine the instantaneous rate of flow of water through the system, or the right holder shall provide to the department a flow rate measurement or computation made by a certified water right examiner in accordance with actual system design and operation.
10. The Director retains jurisdiction of this right in order to limit the use of water for hydropower generation purposes to a specific term of years as required by Section 42-203B(7), Idaho Code.
11. The storage of water under this right is contingent upon the certification of the dam and authorization of storage per the dam safety provisions of the Idaho Code.
12. Use of water under this right may be affected by an agreement between the protestant and the right holder.
13. Use of water for power purposes under this right shall be non-consumptive.
14. Stockwater use is for 150 range cattle and 50 sheep.

Witness my hand this 22nd day of October, 1998

L. Glenn Saxton

Chief, Water Allocation Bureau

MICROFILMED

NOV 06 1998

Form No. 204
7/9

RECEIVED
SEP 18 1998
Department of Water Resources
Southern Region

For Office Use Only
$50 Fee Receipted by J.E. Clayton
Date 9-18-98
Receipt No. 502502

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

REQUEST FOR EXTENSION OF TIME

TO PROVIDE ADDITIONAL TIME IN WHICH TO SUBMIT PROOF OF BENEFICIAL USE FOR A WATER RIGHT PERMIT

The Idaho Department of Water Resources will consider this form as a request that the permit holder(s) be granted an additional period of time under the provisions of Section 42-204, Idaho Code in which to complete development of a water right.

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SEP 23 1998
Department of Water Resources

Permit No. 47-08271

Name(s) of Permit Holder: J M Miller Enterprises Inc.

Mailing Address: PO Box 1, Filer, ID 83328

Date Proof is Due: 11-1-1998 Telephone No. 326-4729

Describe what work has been completed toward the development of this water right:
(This must be filled out! If no work has been completed, show "none".)

An electronic weir has been installed to measure the amount of water available for diversion. Considerable engineering work has also been done.

Costing $ 80,000.

The permit holder(s) has been unable to complete the remainder of the work for the following reasons:

FERC has not yet issued final approval for this project, but will do so shortly. Once this occurs, Corps of Engineers approval is needed before actual construction can begin.

Permit holder(s) request an extension to 11-1-2003, 19____.

FEE: $50.00

James M. Miller President
(Signature)*
**If other than permit holder, Power of Attorney must be supplied.*

ACTION OF THE DEPARTMENT OF WATER RESOURCES

IT IS HEREBY ORDERED that the above request for extension of time be APPROVED and the time within which to submit proof of beneficial use is extended to **November 1, 2002.**

Signed this 16th day of October, 19 98

MICROFILMED
NOV 06 1998

Chief, Water Allocation Bureau

RECEIVED
no ck
MAR 19 1998
Department of Water Resources
Southern Region

Receipt No. 5020959
Receipted By ME
Date 3/23/98

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

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MAR 25 1998
Department of Water Resources

APPLICATION FOR AMENDMENT OF A PERMIT

Applicant J. M. Miller Enterprises, Inc. Phone (208) 326-4729

Address P.O. Box 595, Twin Falls, ID 83303-0595

I am the owner and holder of Permit to Appropriate the Public Waters of the State of Idaho No. 47-08271, and request that the permit and permit map be amended and/or changed as follows:

Purpose of Amendment: ____ Change point of diversion __X__ Add point of diversion

____ Change place of use ____ Change nature of use ____ Change period of use ____ Other

1. Point of diversion: SE ¼ SE ¼ NE ¼, Section 13, Township 9S, Range 15E, B.M., County of Twin Falls. Other points of diversion SW¼ SW¼ NW¼ Sec. 13, T9S, R15E.

2. Period and nature of use: (irrigation, domestic, stockwatering, industrial, etc.)

Amount 0.05 cfs (cfs or acre feet per annum) for stockwater (water use) purposes from 1/1 (Begin month) to 12/31 (End month) (both dates inclusive)

Amount 20.00 cfs (cfs or acre feet per annum) for power (water use) purposes from 1/1 (Begin month) to 12/31 (End month) (both dates inclusive)

Amount ____ (cfs or acre feet per annum) for ____ (water use) purposes from ____ (Begin month) to ____ (End month) (both dates inclusive)

3. Place of use or land to be irrigated:

T wp	R ge	S ec	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

Total number of acres to be irrigated = ____

4. a. Who owns the property at the point of diversion? Applicant

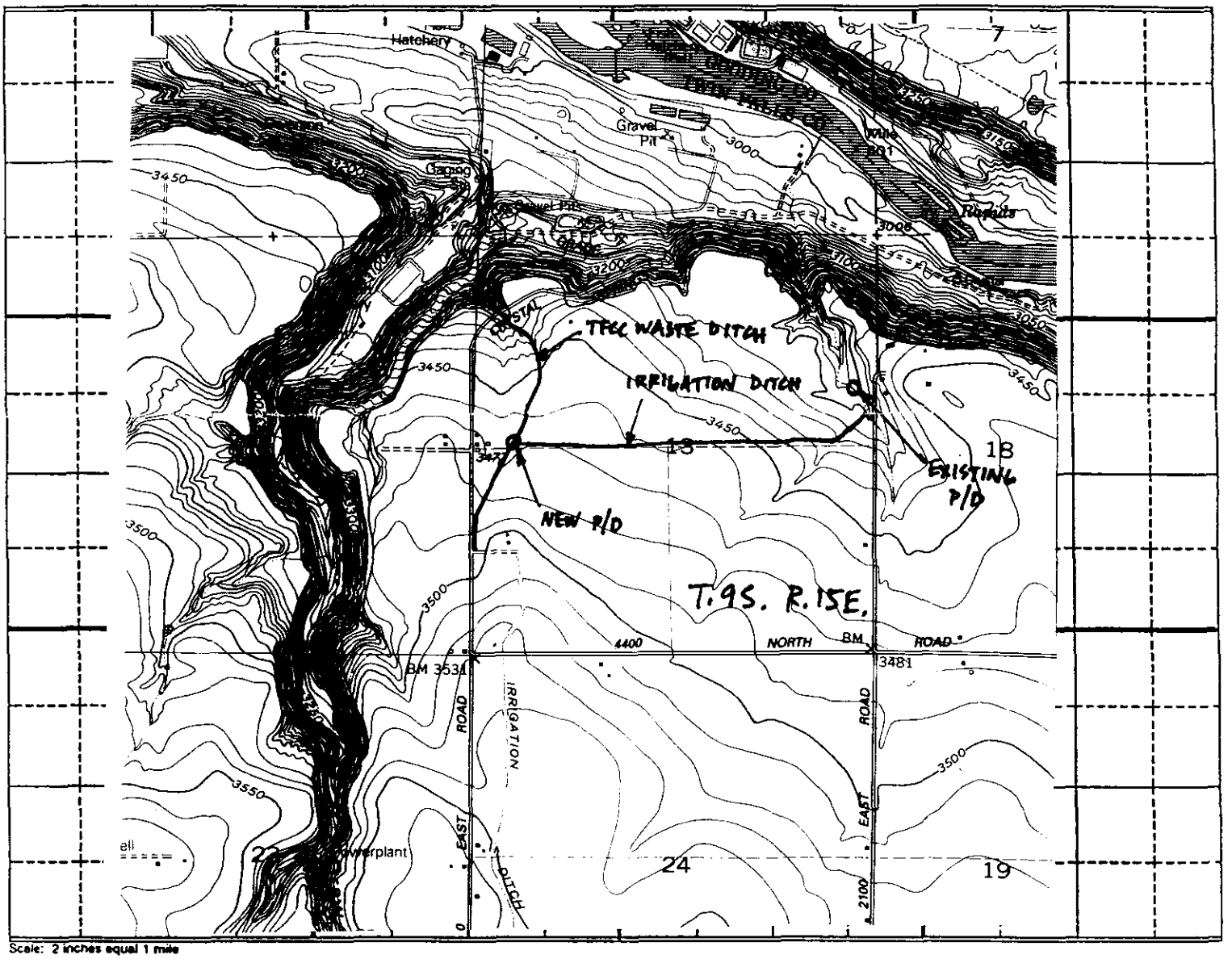
b. Who owns the land to be irrigated at the place of use? N/A

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing: ____

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NOV 06 1998

Complete the following map by showing land and point of diversion as proposed by this amendment.

Show 1/4 1/4, section, township, range and ditches. (the smallest subdivision represents 40 acres)



Scale: 2 inches equal 1 mile

I hereby request approval of this change subject to the fact that no one will be injured by the change, and that the change will be made at my own risk.

Signed this 3RD day of MARCH, 1998. James M. Miller, Pres.

Permit Holder

ACTION OF THE DEPARTMENT OF WATER RESOURCES

Preliminary check by _____ Publication prepared by _____ Date _____

Published in _____ Publication dates _____

I, _____, of the Department of Water Resources hereby

_____

_____

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NOV 06 1998

Witness my hand this _____ day of _____, 19_____.

_____

SIGNATURE

State of Idaho
Department of Water Resources

Permit To Appropriate Water

NO. 47-08271

Proposed Priority: April 24, 1991 Maximum Diversion Rate: 20.00 CFS

This is to certify, that **J M MILLER ENTERPRISES INC**
PO BOX 595
TWIN FALLS ID 83303-0595
has applied for a permit to appropriate water from:

UNNAMED STREAM	tributary of	**SNAKE RIVER**
WASTE WATER	tributary of	**SNAKE RIVER**

and a permit is **APPROVED** for development of water as follows:

BENEFICIAL USE	PERIOD OF USE	RATE OF DIVERSION
STOCKWATER	01/01 to 12/31	0.05 CFS
POWER	01/01 to 12/31	20.00 CFS
	Totals	20.00 CFS

LOCATION OF POINT(S) OF DIVERSION: SESENE , Sec. 13, Township 09S, Range 15E
TWIN FALLS County

PLACE OF USE: STOCKWATER

TWN	RGE	SEC		
09S	15E	13	NENE	SENE

PLACE OF USE: POWER

TWN	RGE	SEC	
09S	15E	13	NENE

CONDITIONS/REMARKS:

1. Proof of construction of works and application of water to beneficial use shall be submitted on or before November 1, 1998.
2. Subject to all prior water rights.
3. Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control.
4. Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.
5. Diversion and use of water under this right is subject to an annual use fee if rules are subsequently promulgated which provide for the submittal of the fee.
6. The Director retains jurisdiction of this right and/or subsequent license issued to change, add or remove any requirement as determined to be appropriate.

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9 1993

State of Idaho
Department of Water Resources

Permit To Appropriate Water

NO. 47-08271

CONDITIONS/REMARKS:

7. This right is subject to the provisions of Sections 42-205 through 42-210, Idaho Code, restricting the sale, transfer, assignment, or mortgage of this right. Failure to comply with these provisions is cause for immediate cancellation of this right.
8. The water right acquired under this permit for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.
9. This right does not constitute Idaho Public Utilities Commission or Federal Energy Regulatory Commission approval that may be required.
10. The right holder shall either install a measuring device or a flow measurement port or provide a certified measurement or computation of flow based upon system design to be prepared by a professional engineer.
11. Water used under this right if discharged into a natural channel or subsurface system shall meet Idaho Water Quality Standards.
12. The Director retains jurisdiction of this right in order to limit the use of water for hydropower generation purposes to a specific term of years as required by Section 42-203B(7), Idaho Code.
13. The storage of water under this right is contingent upon the certification of the dam and authorization of storage per the dam safety provisions of the Idaho Code.
14. Use of water under this right may be affected by an agreement between the protestant and the right holder.
15. Use of water for power under this right shall be non-consumptive.
16. Stockwater use is for 150 range cattle and 50 sheep.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this

16th day of November, 1993.

for R. Keith Higginson, Director

NOV 29 1993

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OCT 25 1993
Department of Water Resources

Ident. No. 47-08271

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

1. Name of applicant James M. Miller, President J.M. Miller Enterprises, Inc. Phone 208-622-7215

   Post office address P.O.Box 595 Twin Falls ID 83303

2. Source of water supply Unnamed Stream (Seepage, springs and T.F.C.C. wastewater from #39, 39A & S2) which is a tributary of Snake River

3. Location of point of diversion is SE ¼ of SE ¼ of NE ¼, Govt. Lot ____

   Sec. 13 Township 9 South Range 15 East B.M. Twin Falls County; additional points of diversion if any: ____

4. Water will be used for the following purposes:

   Amount .05 (cfs or acre-feet per annum) for stockwater purposes from JAN 1 to DEC 31 (both dates inclusive)

   Amount ~~1.5~~ (cfs or acre-feet per annum) for ~~fish propagation~~ purposes from ~~JAN 1~~ to ~~DEC 31~~ (both dates inclusive) J M Miller 11/27/92

   Amount 20 (cfs or acre-feet per annum) for power generation purposes from JAN 1 to DEC 31 (both dates inclusive)

   Amount ____ (cfs or acre-feet per annum) for ____ purposes from ____ to ____ (both dates inclusive)

5. Total quantity to be appropriated is (a) 20.0 cubic feet per second and/or (b) ____ acre feet per annum

6. Proposed diverting works:

   a. Description of ditches, flumes, pumps, headgates, etc. Rockdam diversion in wastewater from #39, #39A, and S2 to channel thru 24" CMP pipe ~~with grid into fish raceways and with check dams in stream to form small ponds~~ J M Miller 11/27/92

   b. Height of storage dam 2 @ 20 feet; active reservoir capacity 40 acre-feet; total reservoir capacity 40 acre-feet; period of year when water will be diverted to storage: JAN 1 to DEC 31 inclusive.

   c. Proposed well diameter is ____ inches; proposed depth of well is ____ feet.

   d. Is ground water with a temperature of greater than 90°F being sought? ____

7. Time required for the completion of the works and application of the water to the proposed beneficial use is five (5) years (*minimum 1 year*).

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NOV 29 1993

8. Description of proposed uses (*if irrigation only, go to item 9*):

a. Hydropower; show total feet of head and proposed capacity in KW. 337 ft./475 KW

b. Stockwatering; list number and kind of livestock. Up to 150 cattle; 50 sheep

c. Municipal; show name of municipality. ----------

d. Domestic; show number of households. Potential fire protection for four homes

e. Other; describe fully. Applicant proposes to build one storage-settling pond and one storage-stockwater pond with total surface area of 4 acres.

9. Description of place of use:

a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.

b. If water is used for other purposes, place a symbol of the use (*example: D for Domestic*) in the corresponding place of use below. See instructions for standard symbols.

TWP	RANGE	SEC.	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
9S	15E	13	S P																
						S													
						~~P~~													

P = Power, ~~P = Fire Protection,~~ S = Stockwater, ~~P = Irrigation~~ J.M. Muller 11/21/92

Total number of acres to be irrigated ---

10. Describe any other water rights used for the same purposes as described above. None known

11. a. Who owns the property at the point of diversion? Applicant

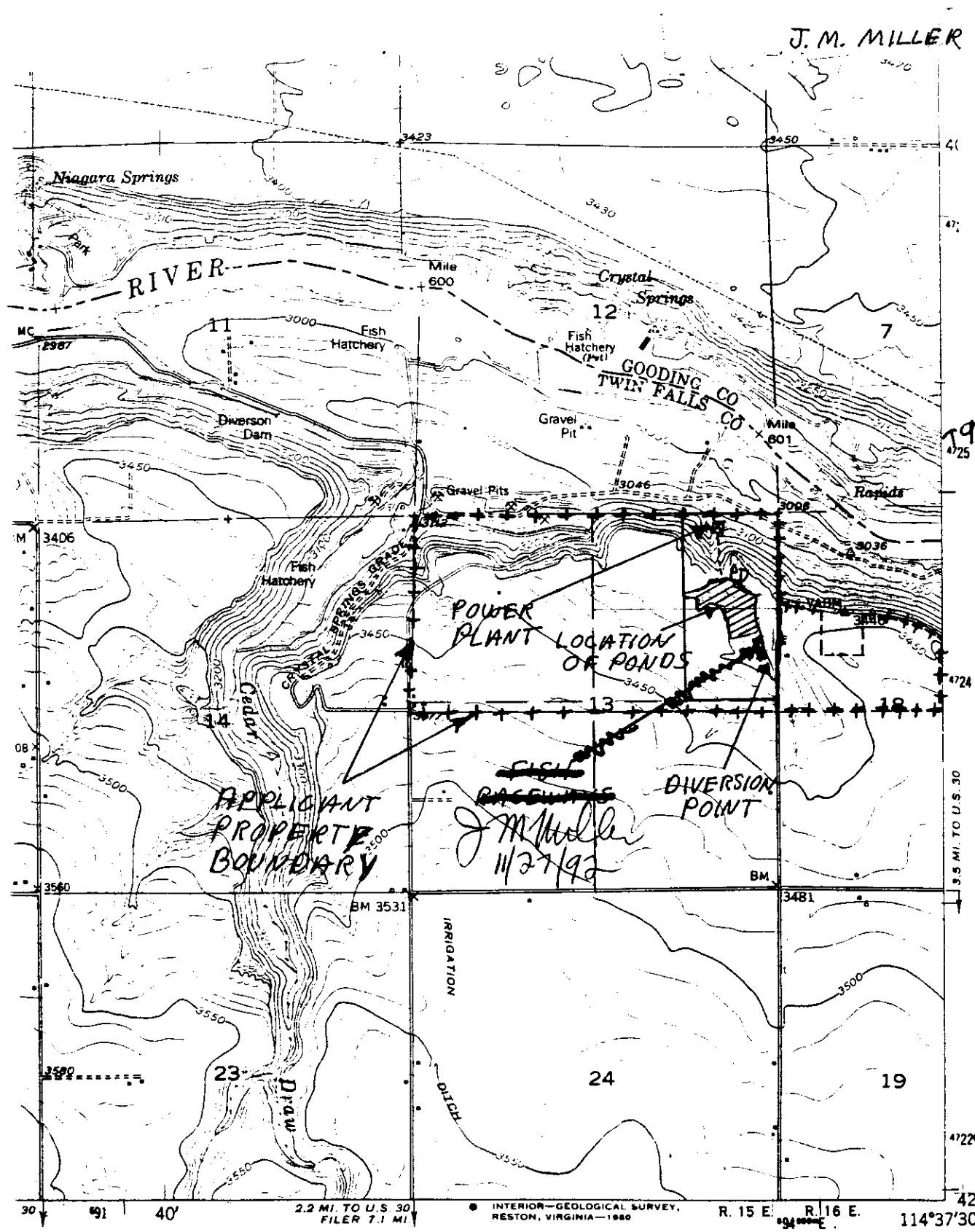
b. Who owns the land to be irrigated or place of use? Applicant

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing. ----------

12. Remarks: This use will be non consumptive except for filling ponds and stockwater. ~~Three to six fish raceways will each be 80 ft. long, 12 ft wide, 4 ft. deep with 4 ft. drops between sections.~~ J.M. Muller 11/21/92 A water measurement device has been installed by J.U.B. Engineers.

NOV 23 1992

J. M. MILLER ENTERPRISES



11/27/92

1 MILE
7000 FEET
KILOMETER

ROAD CLASSIFICATION

Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route

IDAHO
QUADRANGLE LOCATION

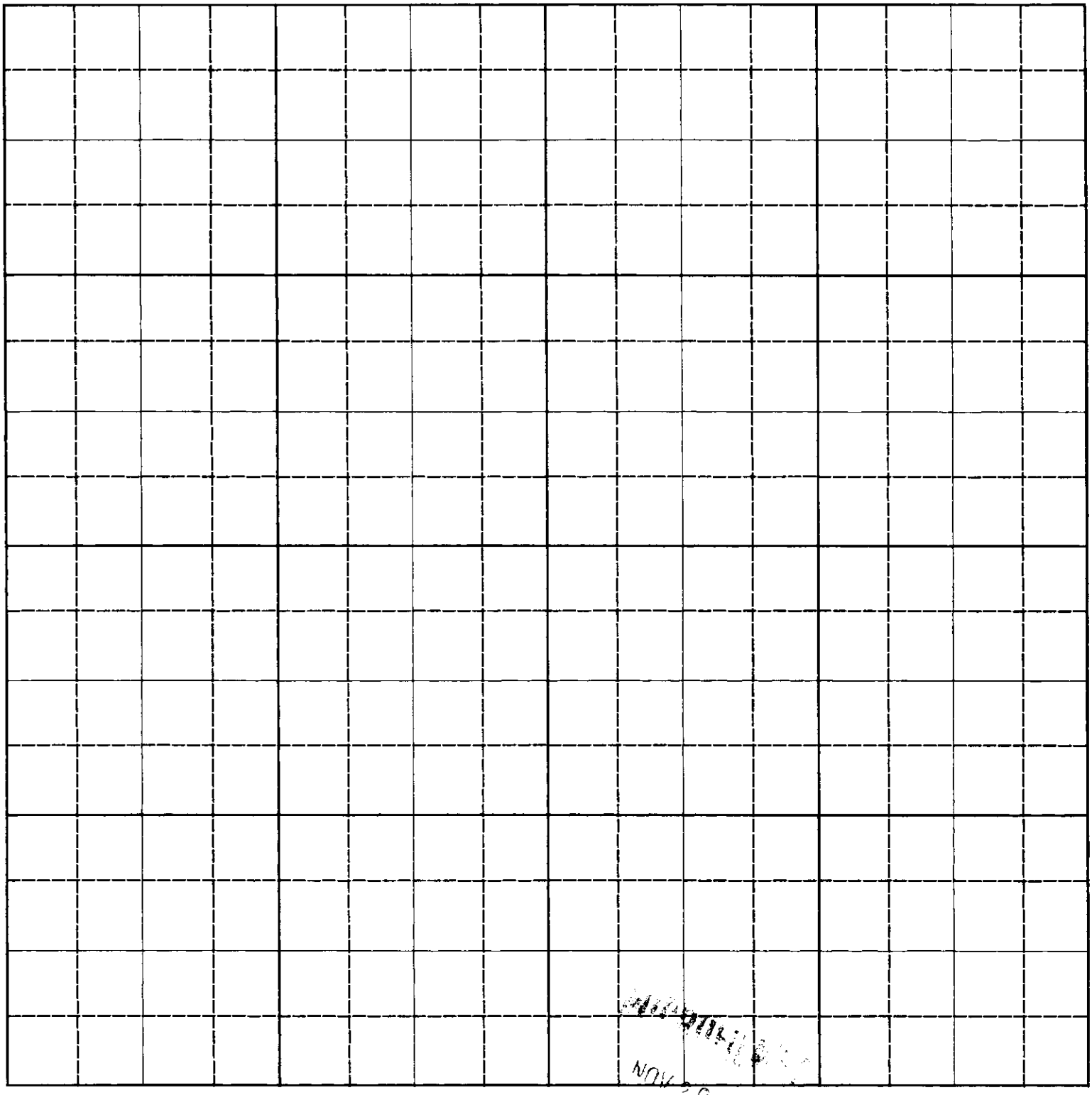
NIAGARA SPRINGS, IDAHO
NW/4 JEROME 15' QUADRANGLE
N4237.5—W11437.5/7.5

1979

(FILED WITH APPLICATION)
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NOV 29 1993
BB-21

47-08271

13. Map of proposed project: show clearly the proposed point of diversion, place of use, section number, township and range number.



Scale: 2 inches equal 1 mile.

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

James M. Miller
(Applicant)

Received by M. Baldwin Date 4-24-91 Time 1106 am Preliminary check by BJ

Fee $ 425.00 ck 301 Receipted by JJ 7-17-91 # 5013275 Date 4-24-91

Publication prepared by MB Date 6-12-91 Published in Times-News, Idaho State Journal, Lewiston Morning Tribune

Publication approved M Baldwin Date 7-3-91, 9/17/91, 10/21/91

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

This is to certify that I have examined Application for Permit to appropriate the public waters of the State of Idaho No. _____, and said application is hereby _____.

1. Approval of said application is subject to the following limitations and conditions:

   a. SUBJECT TO ALL PRIOR WATER RIGHTS.

   b. Proof of construction of works and application of water to beneficial use shall be submitted on or before _____, 19____.

   c. The rate of diversion, if water is to be used for irrigation under this permit, when combined with all other water rights for the same land shall not exceed 0.02 cubic feet per second for each acre of land.

   d. The water right acquired under this permit if for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against any future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.

   e. Other:

NOV 29 1993

7/81 Ident. No. _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCE
AFFIDAVIT FOR WATER RIGHTS TO BE USED
FOR POWER PURPOSES

A. Establishment of Residency: (Complete either 1, or 2).

1. Individual Applicant or Individual Members of a Partnership:

I, _____ of _____,
(name) (city)

county of _____, State of Idaho, being duly sworn, do hereby certify that I am a bona fide resident of the State of Idaho.

2. Corporation:

I, JAMES M. MILLER of TWIN FALLS,
(name) (city)

County of TWIN FALLS, State of Idaho, being duly sworn, depose and say: That I am the designated registered agent of the J.M. MILLER ENTERPRISES, INC.: that as such I am in charge of the registered
(name of corporation)

office of the said corporation as required by Section 30-1-12, Idaho Code, at TWIN FALLS Idaho, wherein are kept the corporate records required
(city)

by Section 30-1-52, Idaho Code: and that J.M. MILLER ENTERPRISES, INC.
(name of corporation)

is a corporation qualified to do business in the State of Idaho under the laws of the State of Idaho.

B. Ownership of Facilities: (To be completed for hydropower projects only)

The hydropower facility to be developed pursuant to the attached Application for Permit:

(check one)

☐ Will not utilize existing man-made irrigation facilities such as a dam or a canal, (MAY) ?

☒ Will utilize existing man-made irrigation facilities such as a dam or a canal, and permission of the owner is documented in an affidavit attached hereto.

☐ Will utilize existing man-made irrigation facilities such as a dam or a canal and the owner of the facilities is the signee of this affidavit.

James M. Miller
Applicant

State of Idaho)
County of Twin Falls) ss.

On this 18 day of June, 19 91, personally appeared before me the signer(s) of the above instrument, who duly acknowledged to me that he (she) (they) executed the same.

Doris Y. Fleming
Notary Public residing at
Twin Falls

seal

My commission expires:
5/10/97

NOV 29 1993

Ahrens.ltr

Mr. Tracy Ahrens
J-U-B Engineers, Inc.
800 Falls Avenue
Twin Falls, Idaho 83301

Draft — Not sent. Hold in file until amendment is received.

RE: Sahko Hydropower Project

Dear Mr. Ahrens:

I have been made aware of a letter to you from Charles G. Brockway dated November 14, 1997, concerning the water rights for the Sahko Project. Dr. Brockway's letter relates that Allen Merritt of this agency had asked that the permit to appropriate water for the project be amended to include Lateral 39 as an additional point of diversion. He then indicates that an amendment is not needed because the rerouting of water between the laterals is within the domain of the canal company.

Dr. Brockway failed to advise you in the November 14, 1997, letter that he "appealed" to me as Mr. Merritt's supervisor and administrator of the state's water right programs to obtain a different reading on the requirement to amend the point of diversion for the permit. After reviewing the permit, I explained in detail to Dr. Brockway the need for amending the permit. They are as follows:

1. Permit No. 47-????? was applied for and granted listing Lateral 39A as the source. The legal description of the point of diversion applied for and granted is on Lateral 39A. Thus only water from Lateral 39A is authorized for use in the facility. The flexibility that Dr. Brockway is asserting would exist if the point of diversion for the right was listed as Milner Dam on Snake River.

2. Twin Falls Southside Canal Company has rights to divert and use water diverted from Snake River at Milner and from other sources for irrigation purposes. The Canal Company's rights do not include the right to divert and use water for hydropower purposes at the Sahko site. Redirection of water within the Company's system for the sole purpose of generating power at the Sahko site would not be consistent with the Canal Company's water rights. The Canal Company has consistently complied with state water law by applying for permits to appropriate water for their hydropower facilities built within their existing system.

At the conclusion of our last telephone conversion on this matter, it was my understanding that Dr. Brockway understood these reasons and was prepared to comply with IDWR's request.

If I can provide additional information on this matter, I will be happy to discuss it with you.

Sincerely,

NORMAN C. YOUNG
Administrator
Water Management Division

c. Allen Merritt
Charles G. Brockway

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, P.O. Box 83720, Boise, Idaho 83720-0098
Phone: (208) 327-7900 FAX: (208) 327-7866

October 23, 1998

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

J M MILLER ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 83303-0595

RE: Water Right 47-08271

Dear Permit Holder(s):

The Department of Water Resources (IDWR) has issued the enclosed Amendment of Permit approving your application to amend the water right referenced above. Please be sure to review every element of the Amendment of Permit, including the conditions of approval and remarks.

The Amendment of Permit is a **preliminary order** issued by IDWR pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action by IDWR unless a party petitions for reconsideration or files an exception and/or brief as described in the enclosed information sheet.**

Also, please note that water right owners are required to report any change of water right ownership and/or change of mailing address to the department within 120 days of the change. Failure to report these changes could result in a $100 late filing fee. Contact any office of the department or visit the department's homepage on the Internet to obtain the proper reporting form.

If you have any questions regarding this matter, you may call me at 208-327-7947.

Sincerely,

JIM JOHNSON, Manager
Water Right Permits Section

JJ:klt

Enclosure

MICROFILMED
NOV 0 6 1998

CERTIFICATE OF MAILING

I hereby certify that on the **23rd** day of **October, 1998,** I mailed a true and correct copy, postage prepaid, of the foregoing **PRELIMINARY ORDER (Amendment of Permit)** to the person(s) listed below:

WATER RIGHT 47-08271

J M MILLR ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 83303-0595

Kari Lynn Townsend
Secretary

MICROFILMED
NOV 0 6 1998

Responding to Preliminary Orders Issued by the Idaho Department of Water Resources

The Idaho Department of Water Resources (Department) issues water right permits, licenses, and transfers as preliminary orders pursuant to section 67-5243, Idaho Code. **A preliminary order can and will become a final order without further action of the department unless a party petitions for reconsideration or files an exception and/or brief as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the Department within fourteen (14) days of the service date of the order. The Department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See section 67-5243(3), Idaho Code.

EXCEPTIONS AND BRIEFS

Within twenty-one (21) days after (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from a preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding. Otherwise, a preliminary order will become a final order of the Department.

If any party appeals or takes exceptions to a preliminary order, opposing parties shall have twenty-one (21) days to respond to any party's appeal. Written briefs in support of or taking exceptions to the preliminary order shall be filed with the Department. The Department retains the right to review the preliminary order on its own motion.

ORAL ARGUMENT

If the Department grants a petition to review a preliminary order, the Department shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Department will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Department orders otherwise, all oral arguments will be heard in Boise, Idaho.

MICROFILMED

NOV 0 6 1998

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Department in connection with a preliminary order shall be served on all other parties to the proceedings in accordance with Rules of Procedure 302 and 303.

FINAL ORDER

The Department will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Department may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

Unless a different date is stated in a final order, the order is effective fourteen (14) days after its issuance if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:

(a) the petition for reconsideration is disposed of; or
(b) the petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

i. A hearing was held,
ii. The final agency action was taken,
iii. The party seeking review of the order resides, or
iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

MICROFILMED
NOV 0 6 1998

ANALYSIS SHEET FOR EXTENSION OF TIME

Permit No. 47-08271 Reviewed by [signature] Date 10-16-98

BASIC INFORMATION

9-18-98 Date stamp received

yes Extension received timely

yes Fee received and receipted

yes Name and signature same as permit

yes Address Change

BASIS FOR EXTENSION REQUEST

yes Has adequate work been completed to demonstrate due diligence?

_____ Has the permit been involved in litigation?
Is supporting documentation needed to complete the file?_____ Requested?_____

_____ Is delay by a government agency?
Is supporting documentation needed to complete the file?_____ Requested?_____

_____ Is the project more than 25,000 acre feet for irrigation or 10,000 acre feet for a reservoir?

ACTION TAKEN Recommend extend to Nov. 1, 2002, on basis of due diligence.

PRIORITY CALCULATION

Date extension received	_____	= _____
Proof due date	_____	= _____
Number of days late	_____	= _____
Priority date	_____	= _____
New Priority Date	_____	= _____

DATA ENTRY

New Address P.O. Box 1, Filer 83328

Change Proof Due Date 11-1-2002

Change Priority Date X

State of Idano
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, P.O. Box 83720, Boise, Idaho 83720-0098
Phone: (208) 327-7900 FAX: (208) 327-7866

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

October 20, 1998

JM Miller Enterprises Inc
PO Box 1
Filer ID 83328

RE: Permit No. 47-08271

Dear Permit Holder:

I have enclosed a copy of the approved request for extension of time submitted in connection with the above referenced permit, which extends the time within which to submit proof of beneficial use to **November 1, 2002.** Please note that the department granted the extension based on due diligence. It is important that you work diligently towards completion of this project since the department **will not** be able to grant additional extension requests based on due diligence.

Section 42-248, Idaho Code, which became effective on July 1, 1996, requires you or the owner of this water right to maintain current ownership and address records on file with the department. Please contact this office or any regional office of the department for the proper form to file a change of ownership of a water right and/or a change in the address of the owner.

Please contact me at (208)327-7953, if you have any questions regarding this matter.

Sincerely,

Julie L. Yarbrough

JULIE L. YARBROUGH
Senior Secretary, Water Allocation Bureau

Enclosure

c: IDWR - Regional Office

MICROFILMED

NOV 0 6 1998

August 31, 1998

J M MILLER ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 833030595

PROOF DUE NOTICE

RE: PERMIT NO. 47-08271

Dear Permit Holder:

One of the conditions of approval of the above referenced water permit was that proof of the extent of your beneficial use must be submitted to this office on or before November 1, 1998. (See last page of your approved permit or your last approved extension request.) Enclosed is a form which when accompanied by the license examination fee or a complete field examination report prepared by a certified water right examiner may be used to submit the required proof.

If you have not fully completed your project, and you or a previous owner of this permit have not received a prior extension of time, you may request an extension of time if the delay is for reasonable cause as provided in Section 42-204, Idaho Code. If you have been prevented from proceeding by a governmental agency or by litigation which might bring title to the water in question, more than one extension of time can be granted. An extension of time request form is enclosed for your convenience.

Either an acceptable proof of beneficial use submittal or an acceptable request for an extension of time must be received by this department on or before the above described proof due date. If neither is received, the department will send you a lapse notice. Within sixty (60) days of the mailing of the lapse notice, the permit will no longer be of any force nor effect.

SINCERELY,

JULIE L. YARBROUGH
Senior Secretary

Enclosures

MICROFILMED
NOV 0 6 1998

CERTIFIED MAIL
NO. 23894970

OWNER CODE	NAME & ADDRESS	PRIORITY DATE	WATER USE	USE PERIOD FROM	USE PERIOD TO	DIVERSION RATE	DIVERSION VOLUME
C	J M MILLER ENTERPRISES INC	04/24/1991	STOCKWATER	01/01	12/31	0.050 CFS	
	PO BOX 595		POWER	01/01	12/31	20.000 CFS	
	TWIN FALLS ID 83303-0595					---	
	(208) 622-7215		TOTAL DIVERSION:			20.000 CFS	

Water Source: UNNAMED STREAM Tributary to: SNAKE RIVER Stage: LICENSE
WASTE WATER SNAKE RIVER

Point(s) of Diversion: T09S R15E S13 SENE SWNW TWIN FALLS County

Place of use Legal Description for: STOCKWATER

	NE				NW				SW				SE			
	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE
T R S	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac
09S 15E 13	S			S												

Place of use Legal Description for: POWER

09S 15E 13	P															

Pou County: TWIN FALLS

Conditions of Approval:

051 - Any license issued by IDWR pursuant to the right or portion
- thereof for the use of trust water is subject to a term review
- of 20 years after the date of this approval to determine
- availability of water for the use and to re-evaluate the public
- interest at the end of the term.

052 - Diversion and use of water under this right is subject to an
- annual use fee if rules are subsequently promulgated which
- provide for the submittal of the fee.

053 - The Director retains jurisdiction over this right and may
- change, add, or remove any requirement as determined to be
- appropriate.

08A - This right is subject to the provisions of Sections 42-205
- through 42-210, Idaho Code, restricting the sale, transfer,
- assignment, or mortgage of this right. Failure to comply with
- these provisions is cause for immediate cancellation of this
- right.

17K - The water right acquired under this permit for hydropower
- purposes shall be junior and subordinate to all rights to the use
- of water, other than hydropower, within the State of Idaho that
- are initiated later in time than the priority of this permit and
- shall not give rise to any right or claim against future rights
- to the use of water, other than hydropower, within the State of
- Idaho initiated later in time than the priority of this permit.

025 - This right does not constitute Idaho Public Utilities Commission

Conditions of Approval:

- or Federal Energy Regulatory Commission approval that may be
- required.

✓ 01N - The right holder shall install a measuring device that can be
- used to determine the instantaneous rate of flow of water through
- the system, or the right holder shall provide to the department
- a flow rate measurement or computation made by a certified water
- right examiner in accordance with actual system design and
- operation.

✓ 17M - The Director retains jurisdiction of this right in order to
- limit the use of water for hydropower generation purposes to a
- specific term of years as required by Section 42-203B(7), Idaho
- Code.

✓ 18B - The storage of water under this right is contingent upon the
- certification of the dam and authorization of storage per the dam
- safety provisions of the Idaho Code.

✓ 020 - Use of water under this right may be affected by an agreement
- between the protestant and the right holder.

Remarks: GEN ✓ Use of water for power purposes under this right shall be non-consumptive.

✓ Stockwater use is for 150 range cattle and 50 sheep.

Dates:
App. Received: 04/24/1991 Priority Date: 04/24/1991
Proof Due Date: 11/01/1998 Proof Made Date:
Exam Made Date: Exam Sent to S.O.:
Licensed Date:

Misc: Water District Number: Field Exam Fee:

Comments: Date: 10/27/1993 User-ID: ZIMMERMA Subject: MORATORIUM & TW EXEMPTION
This permit is located within the Eastern Snake River Plain Moratorium and trustwater boundary; however, its non-consumptive uses are within the acceptable parameters of the Moratorium and trustwater guidelines.

Date: 10/27/1993 User-ID: ZIMMERMA Subject: CORPORATE OFFICER
The only corporate officer of J M Miller Enterprises, Inc is;
James M Miller, President

Date: 10/27/1993 User-ID: ZIMMERMA Subject: DIVERSION DESCRIPTION
Rockdam diversion in wastewater from #39, #39A, and S2 to channel through 24" CMP pipe. 2 dams at 20' each with reservoir cpacity of 40 AF.

Audit: 03/27/98 SCURTIS

AMENDMENT OF PERMIT REVIEW

Review Date ~~47-08271~~ 3/27/98

PERMIT NO. 47-08271 **NAME** JM Miller Enterprises

TYPE:
- A = AMENDED
- B = CHANGE P/D
- (C) = ADD P/D
- D = CHANGE P/U
- E = CHANGE N/U
- F = CHANGE Per/U
- G = OTHER
- H = CHANGE P/D & + P/D
- I = CHANGE P/D & P/U
- J = ADD P/D & CHANGE P/U

AREA OF CONCERN: ____ Mor ____ GWMA (Trust/Non-trust)

PROOF OF B/U RECEIVED? Yes (No) **Due <6 months?** Yes (No)

GROUNDWATER: ~~N/A~~
Drilling Permit No. __-__-__-____-__;
Drilled _____

Swan Falls Flag ____

Conditions of Approval: 051, 052, 053, 08A, 17K, 025, 01N, 020, 17M, 18B

Remarks/Comments SPEC 027
$150 name & $0 chng.

Form No. 211a
10/81

State of Idaho

Department of Water Resources

AMENDMENT ANALYSIS SHEET

INITIAL REVIEW BY: _____

Right Number 47-08271 Applicant J. M. Miller Estate

Purpose of Amendment: ☐ Change point of diversion. ☐ Add diversion point(s).

☐ Increase amount. ☐ Change place of use. ☐ Other _____

CHECK:

- ☒ Description of amended point(s) of diversion.
- N/A ☒ Amount, nature and period of use. If increased, delay date of priority.
- ☒ Description of amended places of use. If expanded, delay date of priority.
- ☒ Ownership of point of diversion and place of use.
- ☐ ~~Stream index information (reverse).~~
- ☒ Map.
- ☒ Signature (must be permit holder).
- ☒ Fee. (called 3/19/98 ck received 3/20/98)
- ☒ Existing water rights from the same source, amended place of use.
- ☐ Right number(s) _____
- ☐ Yes ☒ No Should amendment be advertised?
- ☐ Yes ☒ No Should date of priority be delayed? If yes, to what date? _____

FINAL REGIONAL PROCESSING REVIEW:

- ☐ Affidavit of publication received.
- ☐ Amendment published correctly.
- ☐ Protests processed.
- ☒ Approve.
- ☐ Deny.

Conditions Same as original permit

By _____ Date 3/29/98

STATE OFFICE PROCESSING:

- ☐ Amendment correct and complete. By _____ Date _____
- ☐ Approved copy sent to applicant and to Region. By _____ Date _____

State of Idaho
DEPARTMENT OF WATER RESOURCES
1341 Fillmore Street, Suite 200, Twin Falls, ID 83301-3380
Phone: (208) 736-3033 FAX: (208) 736-3037

March 23, 1998

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

CHARLES G BROCKWAY
BROCKWAY ENGINEERING
706 SUNRISE BLVD NORTH
TWIN FALLS ID 83301

Re: Application for Amendment of Permit No. 47-08271
(J M MILLER ENTERPRISES, INC.)

Dear Dr. Brockway:

The Department of Water Resources acknowledges receipt of the Application for Amendment of Permit as referenced above.

We anticipate that the anaylsis at the Regional office level will be brief since the application will not be subject to public notice as directed by departmental administration.

State office personnel will conduct a complete review prior to final processing of the application and will notify you of the outcome of this review.

Please feel free to contact this office if you have any questions regarding this procedure.

Very truly yours,

Allen D. Merritt, P.E.
Regional Manager

AM:MB

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NOV 0 6 1998

From: DWR60::AMERRITT 19-MAR-1998 11:16:07.08
To: DWR03::NYOUNG
CC: AMERRITT
Subj: AMENDMENT FOR SAHKO POWERPLANT (J M MILLER ENTERPRISES) 47-08271

WE RECEIVED IN THE MAIL AN AMENDMENT APPLICATION. AS SOON AS WE GET THE FEE WE WILL BE PROCESSING THE AMENDMENT. AS I RECALL WE WERE NOT GOING TO ADVERTISE THE AMENDMENT.

ALLEN

BROCKWAY
ENGINEERING
P.L.L.C.

Hydraulics
Hydrology
Water Resources

RECEIVED
MAR 19 1998
Department of Water Resources
Southern Region

March 18, 1998

Mr. Allen Merritt
Idaho Department of Water Resources
1341 Fillmore Street, Suite 200
Twin Falls, ID 83301

Re: Amendment of water right permit 47-08271

Dear Allen:

Enclosed is an application for amendment of a permit for J. M. Miller Enterprises relative to the Sahko Hydropower project. The amendment seeks to add a point of diversion at the point where the Twin Falls Canal Company has agreed to deliver water eastward from Lateral 39A to the wasteway known as the Kastelu Drain. No other changes are requested. Based on conversations with Norm Young, it is my understanding that this application will not be subject to advertisement or other public notice.

Please call if you have any questions.

Sincerely,

Charles G. Brockway

cc: Norm Young
Jim Miller

CHARLES E. BROCKWAY, PH.D., P.E.

CHARLES G. BROCKWAY, PH.D.

706 SUNRISE BOULEVARD NORTH

TWIN FALLS, IDAHO 83301

208•733•0938
208•734•2580

FAX: 736•1746

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NOV 06 1998

MEMORANDUM

TO: **FILE 47-08271**

FROM: **NORM YOUNG** NCY

RE: **AMENDMENT OF PERMIT TO COVER LATERAL 39**

DATE: **December 4, 1997**

Allen Merritt and I encouraged Chuck Brockway Jr. and Sr. to amend the permit to add lateral 39 as an additional source for the Sahko project if water is to be intentionally routed to the hydropower facility. They resisted, but finally agreed to recommend the amendment to the client, but asked that IDWR not give notice of the filing. I agreed that a notice would not be necessary if the applicant documented that all potentially affected waterusers were aware and unconcerned by the amended proposal.

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BROCKWAY
ENGINEERING
P.L.L.C.

Hydraulics
Hydrology
Water Resources

CHARLES E. BROCKWAY, PH.D., P.E.

CHARLES G. BROCKWAY, PH.D.

706 SUNRISE BOULEVARD NORTH

TWIN FALLS, IDAHO 83301

208•733•0938
208•734•2580

FAX 736•1746

November 14, 1997

Mr. Tracy Ahrens
J-U-B Engineers, Inc.
800 Falls Avenue
Twin Falls, ID 83301

Re: Sahko Hydropower Project

Dear Tracy:

As you requested, we have prepared responses to the concerns of both the Idaho Department of Water Resources and the Idaho Fish and Game in letters dated respectively October 7, 1997 and November 3, 1997. In addition, the reports "Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology" and "Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project" were revised and are included with this letter.

RESPONSE TO IDWR COMMENTS

Allen Merritt of the Southern Region of the Idaho Department of Water Resources contends that because some water will be diverted eastward through an existing ditch from Lateral 39 to the Kastelu Drain, the water permit should be amended to reflect an additional point of diversion. Mr. Merritt's chief concern is that notice was not given to potential downstream users on Lateral 39, who may be concerned about reduced flows in that stream.

Both Lateral 39 and the existing ditch connecting the two are Twin Falls Canal Company system conveyances flowing through the applicant's property. Through an authorization from the canal company, the flow in Lateral 39 will be rerouted and the applicant will begin diverting a portion of his canal shares from the connecting ditch. A check structure will be located near the center of Section 13 and the water will be pumped from the ditch to a center pivot in the SE1/4 Sec. 13. From there, water not used by the pivot will travel eastward to the Kastelu Drain. Historically, water has been delivered to the ditch for gravity irrigation via a pipeline from Lateral 39.

Redistribution of flow within the canal company system to deliver a shareholder's water does not represent a new point of diversion of public water. The canal company as a matter of course continually redirects water throughout its system to satisfy the demands of its shareholders. These redirections have never been under the jurisdiction of IDWR, even though

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NOV 16 1998

they certainly affect the discharge in the various return flow streams along the Snake River. Therefore, no amendment to the water right permit is required.

Even though no amendment is needed, it is worth identifying any water users who would potentially be impacted by redirecting water to the drain. The only known water user downstream of the Miller property who uses Lateral 39 water is the canal company itself, who maintains the Cedar Draw water quality project, consisting primarily of a large sediment collection basin. The canal company would not object to reduced flows in this lateral, since increased sediment removal would result. The lateral joins Cedar Draw downstream of the Crystal Spring fish hatchery, so this facility would not be impacted. Idaho Fish & Game has already stated in the letter dated November 3, 1997 that they have no comments on the plan to redirect the water. No other water user or interested party should be impacted by the redirection.

RESPONSE TO IDF&G COMMENTS

Item 1

Estimation of sediment removal did in fact assume a constant-volume detention basin. The sediment removal calculations were revised to examine a single pond which decreases in volume as sedimentation occurs. The sediment removal under this scenario will be 2760 tons (49%). Under the constant-volume case, the sediment removal will be 3537 tons (62%). However, it can be shown that the net effect of the sediment basin and the forebay in series will be nearly the same as the constant-volume single-basin case, since the forebay will remove some larger particles that the sediment basin becomes unable to remove as it decreases in volume. Therefore, the total removal including the effect of the forebay will be close to 62%, assuming the sediment basin is cleaned once a year. Likewise, phosphorous removal will be approximately 18%.

Item 2

It is anticipated that a gravel ingress/egress point sufficient to allow vehicular access, including a loader, will be constructed to facilitate sediment removal from the ponds. Care will be taken to ensure that riparian and wetland vegetation is not significantly disturbed. It is not appropriate or environmentally sound to construct a paved access point. Nor is it practical or appropriate to notify the IDFG and USFWS whenever the impoundments, which will be on private property, are to be cleaned.

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Item 3

Coconut fiber matting bound with jute is an acceptable material for the erosion control blanket and will be used in place of a biodegradable monofilament netting.

The seed mixture proposed by the applicant was recommended by the Natural Resources Conservation Service. However, the mix recommended by IDF&G, consisting of Idaho fescue, Indian rice grass, western wheat grass, and blue-bunch wheat grass is acceptable and will provide equivalent soil stabilization. In the event one or more of these grasses is unavailable, one of the following species will be substituted: Smooth brome, Hard fescue, or Alfalfa (as recommended by the NRCS).

IDF&G also recommends incorporation of willow cuttings into rip-rapped areas. Willow will be incorporated into the rip-rap on the upstream face of both embankments. However, no vegetation should be incorporated into the rip-rap which is an integral part of the hydraulic structures, as it may impair the operation. Properly designed rip-rap in the controlled environment of a hydraulic structure is entirely adequate for erosion control.

Item 4

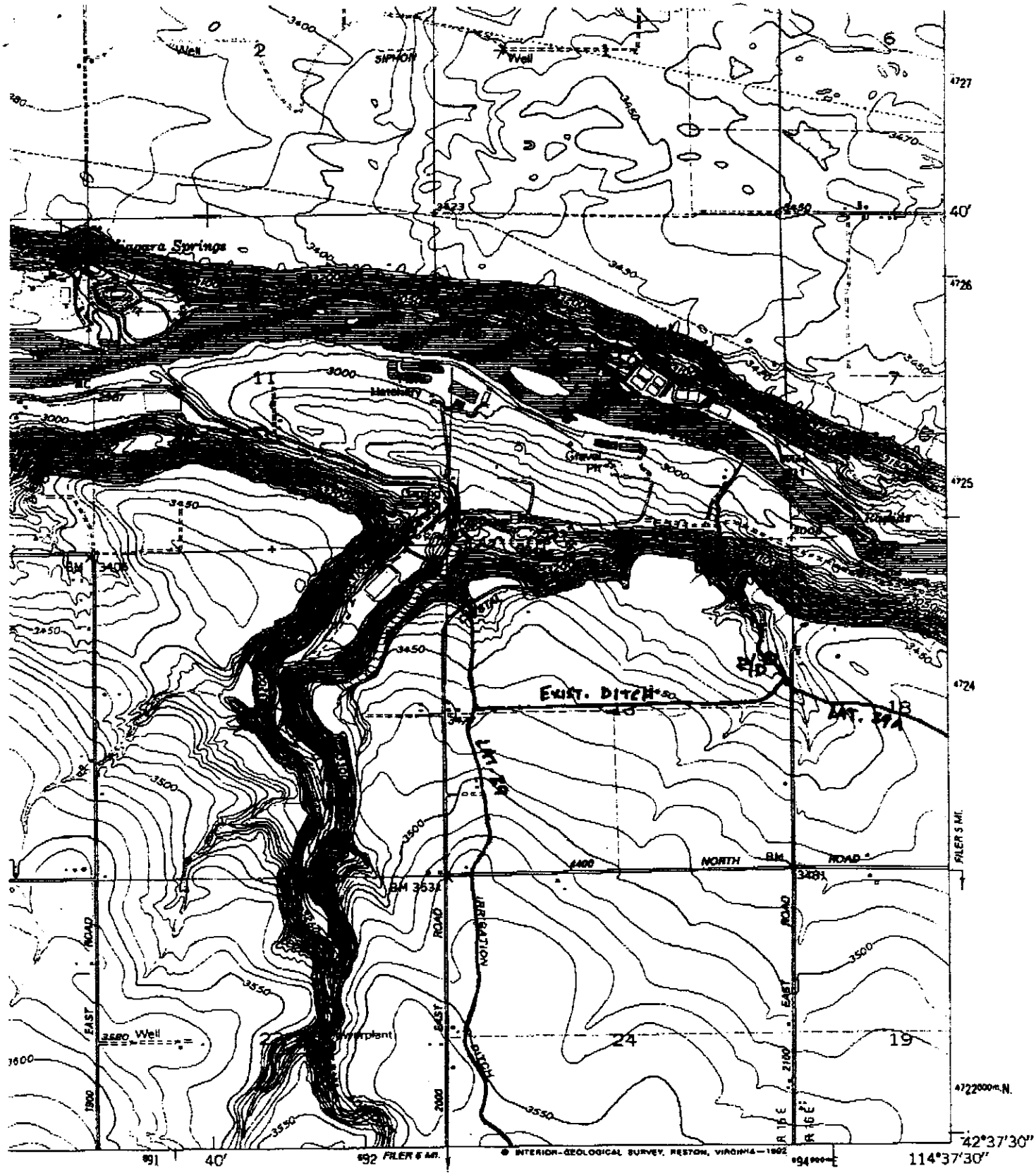
Typical operation of the hydropower plant will involve diversion of most or all of the surface flow in the Kastelu Drain. The discharge in the reach between the forebay and the powerhouse will therefore typically be small, but the springs which feed this reach will not be affected by the project. The springs will continue to be fed from subsurface irrigation return flow and by seepage from the project impoundments. The impact on the vegetative community from the diversion cannot be analytically determined with certainty; however, the impact is likely to be slight, since most of the vegetation along the drain is sustained by subsurface water which is at or near the surface and which will not be affected by the project.

Sincerely,

Charles G. Brockway

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NOV 0 6 1998



1 MILE
6000 7000 FEET
1 KILOMETER

ROAD CLASSIFICATION

Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route

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NOV 06 1998

State of Idaho
DEPARTMENT OF WATER RESOURCES
1341 Fillmore Street, Suite 200, Twin Falls, ID 83301-3380
Phone: (208) 736-3033 FAX: (208) 736-3037

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

October 7, 1997

Tracy A. Ahrens, PE
JUB Engineers, Inc
800 Falls Ave, Suite 1
Twin Falls, ID 83301

RE: Application for Permit 47-08271
Miller Enterprises Inc. (Sahko Project)

Dear Mr. Ahrens:

I have reviewed your recent letter and attached information regarding the above described project and it appears that the approved water right permit 47-08271 does not agree with the current project proposal.

It appears that the current proposal expands the development of waste water beyond that which is currently covered under the approved water right permit (Please find enclosed a printout of the current permit for your reference). I recommend that the permit holder amend permit 47-08271 to include the currently proposed additional point of diversion within the SW¼NW¼, Section 13, Twp.09S, Rge.15E, B.M. or that a new application be filed to cover this diversion.

If you have questions, please feel free to contact our office.

Sincerely,

Allen Merritt, PE
Southern Region Manager

CC: Norm Young

Post-it® Fax Note 7671 | Date 10/14/97 | # of pages ▶ 4
To Chuck Brockway | From Bill Black
Co./Dept. | Co. JUB
Phone # | Phone #
Fax # (208) 736-4478 | Fax # (208) 733-2455

J.U.B. ENGINEERS
RECEIVED
OCT 10 1997
TWIN FALLS, IDAHO

MICROFILMED
NOV 06 1998

BROCKWAY
ENGINEERING
P.L.L.C.

706 SUNRISE BOULEVARD NORTH
TWIN FALLS, IDAHO 83301
208•733•0938
FAX 208•736•1746

FAX

736-7248

TO:	FROM:	
Norm Young re: Salmon Hydro	Chuck Brockway	Date: 11/12/97 Number of pages: 3 Fax number: 327-7866

REMARKS:

Enclosed:

Letter from Allen Merritt

Latwai 39/39A map

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NOV 06 1998

RECEIVED
OCT 16 1997
Department of Water Resources
Southern Region

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

WASHINGTON DC
OCT 08'97
U.S. OFFICIAL MAIL
PENALTY FOR PRIVATE USE $300
PB METER 7250412
032
U.S. POSTAGE

P-11060 101465
LOREN HOLMES DISTRICT MGR
IDAHO DEPARTMENT OF WATER RESOURCES
1301 NORTH ORCHARD ST. (ZIP 83706-2237
POST OFFICE BOX 83720-0098
BOISE, ID 83720-0098

Schedule A
P-11060-001

ADDITIONAL INFORMATION

Item 2 of the additional information you filed on June 4, 1997, does not provide all of the information needed to determine the impact of the proposed Sahko Project on the federally listed, threatened and endangered snail species that may occur in the project area (Utah valvata snail, Bliss River snail, and Snake River physa snail). Before we can continue processing your license application, we need you to conduct a visual survey for these species in the areas of suitable habitat that would be affected by your project. Your survey should also include the California floater mussel, a species of concern to the U.S. Fish and Wildlife Service (FWS).

We recognize that when you filed your application for license, the above species had not been federally listed under the Endangered Species Act, and the FWS did not anticipate that the proposed project would impact these species because of the distance of the project from the Snake River (letter to D.W. Block, P.E., J-U-B Engineers, Inc., Boise, Idaho, from Charles H. Lobdell, Field Supervisor, Boise Field Station, U.S. Fish and Wildlife Service, Boise, Idaho, December 10, 1992).

Recently, however, the FWS requested that you conduct a survey of the project site for the three snail species and the California floater mussel (letter to Marc Auth, Authorized Technical Services, Boise, Idaho, from Robert G. Ruesink, Supervisor, Snake River Basin Office, U.S. Fish and Wildlife Service, Boise, Idaho, February 14, 1997). You believe that a survey is not needed because the FWS has already stated that no project effects on the snail species are anticipated, and the FWS has requested, but not required, a survey.

We asked the FWS to explain why the study was necessary. The FWS clarified that more recent information about these species indicates that they may occur as far from the Snake River as your proposed project site (letter from Robert G. Ruesink, Supervisor, Snake River Basin Office, U.S. Fish and Wildlife Service, Boise, Idaho, September 9, 1997).

Under section 7 of the Endangered Species Act, we must evaluate any potential impacts on federally listed species before we decide on your license application.

Therefore, after consulting with the FWS and the Idaho Department of Fish and Game (IDFG), you must conduct a visual survey for the presence of the Utah valvata snail, *Valvata utahensis*; Bliss River snail, *Taylorconcha serpenticola*; Snake River physa snail, *Physa natricina*); and the California floater mussel, *Anodonta californiensis*. You must survey in all areas of suitable habitat directly or indirectly affected by your project's construction and operation, including areas within the project boundaries and the Kastelu Drain all the way to its confluence with the Snake River. Your survey must be conducted by a qualified biologist who is knowledgeable in the identification and biology of these species.

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NOV 0 6 1998

After conducting the survey you must give us the following information:

(A) documentation that you consulted the agencies before conducting the survey;

(B) a description of the methods, including a map showing the survey area, collection locations, and the dates and times of the surveys;

(C) the results of your survey of the areas affected by the construction and operation of the proposed project for the presence of the three snail and one mussel species, including the date, time, and location of collections;

(D) a description of the effect of project construction and operations on any survey species found in the project area, specifically addressing the effects on water temperatures, dissolved oxygen, pH, nutrient levels, sedimentation, availability and type of substrate, and the free flow of water from the springs;

(E) a detailed plan to protect or enhance the designated snail and/or mussel species, if found in the area; and

(F) comments and recommendations received from the FWS and the IDFG on items B through E.

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426

OCT 1 1997

OFFICE OF HYDROPOWER LICENSING

Project No. 11060-001 - Idaho
Sahko Hydroelectric Project
J. M. Miller Enterprises, Inc.

Mr. J. M. Miller
J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83393

Dear Mr. Miller:

We need additional information before we can complete our evaluation of your license application for this project. Under section 4.32(g) of the Commission's regulations, you have 90 days from the date of this letter to provide the information we request in the enclosed Schedule A. If the requested information causes any other part of the application to be inaccurate, that part must also be revised and refiled by the due date.

We ask you to provide both agency comments and your response to those comments. Within five days of receipt, you should provide a copy of this letter and the enclosed schedule to all agencies that we ask you to consult. Then, when you complete your response, make a written request to the agencies for comment. Allow the agencies at least 30 days to respond before filing the information with the Commission. In your filing, you should include copies of all agency comments and recommendations, and tell how you address them. If the agencies do not reply, you should provide us dated copies of your letters of request for comments.

When you file the requested information with us, you must at the same time serve copies of the filing on each agency consulted under section 4.38 of the regulations.

If you have any questions concerning this matter, please call Nan Allen on (202) 219-2938.

Sincerely,

Kevin P. Madden
Acting Director
Office of Hydropower Licensing

Enclosure:
Schedule A

cc: Donald W. Block, P.E.
J-U-B Engineers, Inc.
800 Falls Ave.
Twin Falls, ID 83301

Robert G. Ruesink, Supervisor
U.S. Fish and Wildlife Service
Snake River Basin Office
1387 South Vinnell Way, Room 368
Boise, ID 83709

Service List
Public File

RECEIVED
OCT 14 1997
Department of Water Resources

RECEIVED
OCT 17 1997
Department of Water Resources

MICROFILMED
NOV 06 1998

11280-47

J-U-B ENGINEERS, INC.
ENGINEERS SURVEYORS PLANNERS
800 FALLS AVENUE
TWIN FALLS, IDAHO 83301
PHONE: 208-733-2414
FAX: 208-733-9455

RECEIVED
AUG 1 1 1997
Department of Water Resources

LETTER OF TRANSMITTAL

DATE: 8/6/97

TO: Mr. Allen Merritt
Idaho Dept. of Water Resources-SRO
1341 Fillmore Street, Suite 200
Twin Falls, Idaho 83301

RECEIVED
AUG 0 8 1997
Department of Water Resources
Southern Region

FROM: Tracy A. Ahrens, P.E.

PROJECT: Sahko Hydroelectric Project
FERC Project No. 11060-001-Idaho

ITEM: FERC Additional Information Request

As required by the Federal Energy Regulatory Commission (FERC) in their letter dated July 30, 1997 to Mr. J.M. Miller, J.M. Miller Enterprises, Inc. we are hereby transmitting to you a copy of the following items:

1) Federal Energy Regulatory Commission letter to Mr. J.M. Miller, J.M. Miller Enterprises, Inc. dated July 30, 1997.

2) Schedule A - Additional Information (Attachment to FERC letter-Item 1).

47-0827 /

Please call if there is any problems with this transmittal.

Respectfully,

MICROFILMED
NOV 0 6 1998

J.U.B. ENGINEERS
RECEIVED
AUG - 4 1997
TWIN FALLS, IDAHO

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426

RECEIVED
AUG 0 8 1997
Department of Water Resources
Southern Region

OFFICE OF HYDROPOWER LICENSING

Project No. 11060-001 - Idaho
Sahko Hydroelectric Project
J. M. Miller Enterprises, Inc.

JUL 3 0 1997
RECEIVED
AUG 1 1 1997
Department of Water Resources

Mr. J. M. Miller
J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83393

Dear Mr. Miller:

We need additional information before we can complete our evaluation of your license application for this project. Under section 4.32(g) of the Commission's regulations, you have 120 days from the date of this letter to provide the information we request in the enclosed Schedule A. If the requested information causes any other part of the application to be inaccurate, that part must also be revised and refiled by the due date.

In item No. 1, we ask you to provide both agency comments and your response to those comments. Within five days of receipt, you should provide a copy of this letter and the enclosed schedule to all agencies that we ask you to consult. Then, when you complete your response, make a written request to the agencies for comment. Allow the agencies at least 30 days to respond before filing the information with the Commission. In your filing, you should include copies of all agency comments and recommendations, and tell how you address them. If the agencies do not reply, you should provide us dated copies of your letters of request for comments.

When you file the requested information with us, you must at the same time serve copies of the filing on each agency consulted under section 4.38 of the regulations.

If you have any questions concerning this letter, please call Nan Allen, on (202) 219-2938.

Sincerely,

Kevin P. Madden
Acting Director
Office of Hydropower Licensing

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Enclosures:
Schedule A

cc: Donald W. Block, P.E.
J-U-B Engineers, Inc.
800 Falls Ave.
Twin Falls, ID 83301

Service List
Public File

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Schedule A
P-11060-001

ADDITIONAL INFORMATION

1. The information you filed on June 4, 1997, does not provide all the information needed to determine the effects of your proposed project on water drainage in the area. In Appendix K, page 5, of the additional information you state that a waste water ditch has been rerouted to pass through the Kastelu drainage and that this would increase the flow through the project about 50 percent from March to September. So that we can assess the effects of increasing the water available for the proposed project, please provide the following:

A. a description of the rerouted ditch and its location;

B. a revised drawing for Exhibit G of your application which shows the rerouted ditch;

C. revisions to the sections of your application for water quality and quantity in Exhibit E, and to the hydraulic plant capacity and the dimensions of the forebay and sediment collection basin in Exhibit A, as needed based on the additional project flows;

D. revised flow data for the project (table E-1 of the application);

E. revised estimates for annual sediment removal by the proposed sediment collection basin (table E-2 of the application);

F. revised estimates for annual phosphate removal by the proposed sediment collection basin (table E-3 of the application); and

G. a revised report on the Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology in Appendix D of your additional information, including revised estimates for the sediment collection basin detention times and sediment removal rates for the discharges specified in Appendix A, page 4, of your additional information (1, 2, 5, 10, 15, and 20 cfs), as needed based on the increase in available flows for the project.

You must provide the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers, the Idaho Department of Fish and Game, the Idaho Division of Environmental Quality, the Idaho Department of Water Resources, and Canyon Springs L.L.C. with copies of your response

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to items 1(A) through 1(G), and allow them a minimum of 30 days to provide you with their comments. Include documentation of your request for comments and copies of the comments and recommendations, if any, in your response filed with the Commission.

2. Appendix 5 of your application shows that you have a permit to appropriate up to 20.05 cfs of water to operate the project. Please submit documentation that you have requested a permit to appropriate the additional water you plan to use for the project, and any response received to your request.

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J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

April 16, 1997

RECEIVED
JUL 2 2 1997
Department of Water Resources

RECEIVED
APR 1 8 1997
Department of Water Resources
Southern Region

Mr. Allen Merritt
Idaho Dept. of Water Resources - SRO
1341 Fillmore Street, Suite 200
Twin Falls, Idaho 83301

RE: Sahko Hydroelectric Project
FERC #11060-001-Idaho
J.M. Miller Enterprises, Inc.

Dear Field Supervisor:

Attached is the report titled "Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project" prepared by Brockway Engineering, PLLC.

On behalf of our subject client and pursuant to a June 5, 1996 letter of the FERC (submitted to your office by J-U-B ENGINEERS Letter of Transmittal) requiring additional information, we solicit your comments concerning the following:

> RE: ITEM 1 - To develop a draft Erosion and Sediment Control Plan (ESCP). Provide agencies with a copy of the plan and allow 30 days for comment. Address comments provided by the agencies.

Please review the attached ESCP and provide any comments that would be appropriate. We would request that your comments be submitted to the Twin Falls J-U-B office on or before May 19, 1997. If you have any questions, please don't hesitate to contact me. Meanwhile we look forward to your timely response to allow us to address your comments to the FERC.

Sincerely,

J-U-B ENGINEERS, Inc.

Tracy A. Ahrens, P.E.
Project Engineer

TAA/fw

cc: J.M. Miller Enterprises, Applicant
Marc Auth, Authorized Technical Services

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47-08271

RECEIVED

APR 18 1997

Department of Water Resources
Southern Region

Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project

Twin Falls County, Idaho

Brockway Engineering, PLLC

April 14, 1997

GEOLOGY OF THE PROJECT SITE
(Response to item 1.a. of the FERC request for additional information)

The geology of the project area is characterized by loessal silt loam soils overlying basalt flows of the Snake River Group. The soils are highly erodible but highly productive agricultural soils. Irrigation has been practiced for approximately 80 years on the tract and significant erosion has taken place.

In the immediate area of the project there are four predominant soils (see the NRCS soils map given in Figure 1 and the soil descriptions in Table 1). The soils are delineated on preliminary soil classification maps by the Natural Resources Conservation Service as the MeC unit of the Minveno soil, the BhB slope unit of the Bahem soil, the SIB member of the Sluka soil, and rock outcrops and xerothents mapped as QMD on the NRCS soils map. The Sluka, Minveno, and Bahem soils are all silt loam soils with 2-8% slope. The Sluka and Minveno soils

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generally include hardpan (generally silicic concretions) from 20 to 40 inches whereas the Bahem soil has depths of more than 60 inches. Immediately adjacent to the stream, the soils are xerorthents with shallow depths over basalt with the QMD map unit designation.

The basalt rock is generally overlain by a layer of relatively low permeability fine-grained material which impedes downward movement of percolating water and can result in surface seeps from percolation of irrigation water from areas up-gradient. This is the case in and adjacent to the Kastelu Drain in the project area resulting in the wetlands defined in the wetlands delineation study by Montgomery and Watson and the more recent wetlands study by Brockway Engineering.

The proposed project would not affect the irrigated soils in the area and would reduce the conveyance of sediment from irrigated areas to the Snake River. In the ponded areas of the project (sediment basin and forebay), some soils would be inundated and some would be excavated and used for wetlands as outlined in the wetlands mitigation plan. A total of 1.11 acres would be affected in the immediate area of the impoundments and approximately 0.25 acres of the QMD unit disturbed in the pipeline and powerhouse area construction would be reseeded.

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EROSION AND SEDIMENT CONTROL PLAN
(Response to item 1.b. and item 4. of the FERC request for additional information)

Surface runoff from the Twin Falls tract degrades the water quality of the irrigation return flow drains. Eroded topsoil and nutrients from agricultural activities are collected in the numerous drains which eventually flow into the Snake River. The Kastelu Drain in particular is a significant contributor to the sediment and phosphorous load in the Snake River. As indicated above, the total sediment load contributed by the drain during the irrigation season is approximately 4029 tons per year, while the phosphorous load is approximately 3.55 tons per year, based on data collected throughout 1990 - 1991.

SEDIMENT COLLECTION BASIN

The primary sediment control measure will be a detention basin designed to remove most of the sediment and phosphorous from the water flowing in the drain. It is proposed to construct the sedimentation basin with a surface area of 0.57 acres, and an estimated average depth of 4.5 feet (after removal of soil for the wetland mitigation plan – see below), for a total volume of 2.57 acre-feet or 111,730 cubic feet. Detention times for a basin of this size at various inflow rates are given in the following table.

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Discharge (cfs)	Detention time (hrs)
1	31.1
2	15.6
5	6.2
10	3.1
15	2.1
20	1.6

Typically, the Kastelu Drain discharge during the irrigation season ranges from 5 to 10 cfs, with peak discharges close to 15 cfs. The maximum normal discharge is expected to be 20 cfs. At 10 cfs, the detention time is 3.1 hours, which is sufficient to achieve approximately 75% removal of sediment. During periods when the sediment load and/or the discharge is high, the removal rate may drop to 65 or 70%. A consistent removal of 70% is likely to be achievable with the proposed sediment basin. Phosphorous removal will also be accomplished by the detention basin. Because phosphorous is adsorbed largely to the finer particulates which are not removed, and because some phosphorous occurs in dissolved orthophosphate form, the removal rate for this nutrient is approximately 20%.

Removing 70% of the sediment load has significant implications for the water quality of the Snake River. Reducing the annual sediment load to 1209 tons from 4029 tons, and reducing the annual phosphorous load to 2.84 tons from 3.55 tons is would significantly improve the water quality of the Snake River,

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which has been degraded in part by high sediment and nutrient loads from irrigation return flows.

SEDIMENT REMOVAL AND TRANSPORTATION PLAN

Based on measured sediment loads in the Kastelu Drain and the expected rate of sediment removal in the detention basin, the basin will accumulate approximately 2820 tons of sediment per year, which corresponds to 56,400 cubic feet of a soil weighing 100 lbs/ft^3. Assuming this sediment is distributed evenly throughout the basin, the depth of sediment accumulation each year will be approximately 2.27 feet.

An agreement will be reached between the applicant and the Twin Falls Canal Company (TFCC) for removal and transport of the accumulated sediment every year or every two years, depending on the accumulated sediment. The TFCC is interested in acquiring material of this type, and will utilize the sediment for their ongoing construction projects, or for topsoil replacement on agricultural fields. Therefore, no sediment disposal site will be located in or near the project site.

Sediment removal from the collection basin will take place according to the following procedure:

1) Dewater the sediment collection basin via the bypass pipe through the embankment

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2) Divert the flow in the Kastelu Drain into the bypass ditch and around the basin
3) Access the sediment basin at the points shown on Figure 2, and removal sediment via a long-boom backhoe. This equipment is able to reach across the entire width of the basin, so that no entry into the basin area will be necessary.
4) Transport the sediment off the project site to fill various needs at the discretion of TFCC.

This sediment removal procedure will result in no impact on the water quality in the Kastelu Drain. Typically, sediment removal will take place during low flow periods, and all flow will be bypassed around the basin.

Since some sediment will remain in the outflow from the sediment basin, the forebay will encounter minor deposition. This deposition will be removed approximately every five years, under a similar agreement with the Twin Falls Canal Company. The forebay sediment will be removed during low flow periods according to the following plan:

1) Draw down the water level in the sedimentation basin to the minimum level and simultaneously dewater the forebay via the bypass pipes through the embankments.

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2) With the forebay dewatered, but the drain still flowing, remove sediment from the east portion of the forebay (away from the thalweg of the drain) by accessing at the locations shown on Figure 2.
3) Close the bypass pipe through the sediment basin embankment and allow the sediment basin to begin filling.
4) Enter the forebay area and removing the remaining sediment using a rubber-tired backhoe or front-end loader (the drain is dry at this point).
5) Transport the sediment off the project site to fill various needs at the discretion of TFCC.

By following this procedure, no additional sediment will enter the drain from the forebay impoundment.

EROSION CONTROL MEASURES

In order to prevent surface erosion and subsequent sediment inflow to the Kastelu Drain both during and after construction, the following control measures will be implemented.

1) For the construction of the sediment collection basin, a bypass ditch will be employed as shown on Figure 2 to divert the water in the Kastelu Drain. This will prevent introduction of sediment into the drain from the embankment placement and other necessary fill or excavation. This ditch will also be used in the periodic sediment removal plan described above. No coffer dams will be employed.

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2) For the construction of the forebay, a bypass ditch will be constructed to locally bypass the embankment to prevent sediment input to the drain during the placement of the embankment. This ditch will be for construction purposes only. No coffer dams will be employed.

2) Silt fences will be located during and after construction at the locations shown on the drawing. The fences will prevent surface runoff from the disturbed areas of the project from entering the drain, and will also protect the two springs from sediment intrusion. The disturbed areas which pose a threat to water quality include the intake access road and the two impoundment embankments. Construction of the bypass ditch does not pose a threat, since no disturbed slope will be created. The fences will remain at these locations until vegetation has been established sufficiently to stabilize the slopes. Approximately 580 feet of fencing will be installed, at an estimated cost of $1740.

3) Erosion control matting will be placed on the slopes of the impoundment embankments. The erosion mat will be a straw and coconut fiber matting bound with biodegradable netting and designed for installation on 3:1 slopes. This matting will provide additional erosion control while allowing the vegetation growth to occur through the matting fibers. The approximate required areas of matting are 5,550 ft^2 for the impoundment embankments or 617 yd^2. The estimated cost for this matting is $500.

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4) Disturbed areas will be re-seeded with a mixture of native grasses, according to the following specification or a mixture which will provide equivalent stabilization characteristics:

Species	Variety	% in mixture
Smooth Brome	manchar	33%
Hard fescue	durar	33%
Alfalfa	spreader II	33%

Total applied: 29 pound per acre of mixture

Approximately 0.58 acres will be re-seeded, which includes the impoundment embankments, the disturbed penstock trench area, and the powerhouse area. The estimated cost for this revegetation is $2505, which is itemized in Table 2. The revegetation plan will be implemented as soon as practicable after construction is complete so that the risk of erosion is minimized. If a significant precipitation event occurs before revegetation is complete, the silt fences will prevent sediment inflow to the drain. The revegetated areas will be monitored after the project is complete to ensure that slope stabilization is adequately accomplished. Additional revegetation will be implemented as necessary.

In addition to the above measures, erosion control provisions for all areas of the impoundment embankments which may experiences high velocities. The overflow spillway at the forebay embankment will be concrete, with a rip-rap toe blanket on the downstream outlet to protect the toe of the embankment. The outlet of the sedimentation basin will be a spillway consisting of a rip-rap

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approach section, a concrete section at the crest, and rip-rap along the downstream face and toe of the embankment. These measures will be erosion of the embankment and introduction of sediment into the Kastelu Drain.

All erosion control features are detailed on Figure 2 with respect to the project facilities and the existing drain.

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Table 1. Soil unit descriptions for the Sahko Hydropower project site.

	SIB - Sluka	MeA - Minveno	BhB - Bahem	QMD - rock
Surface texture	Silt loam	Silt loam	Silt loam	Variable
Subsurface texture	Silt loam	Silt loam	Silt loam	Variable
Limiting factors	Soil depth	Soil depth, soil reaction	Soil reaction, slope	Variable
Water holding capacity	3.0 to 6.0 in.	2.0 to 4.0 in.	10.0 to 11.0 in.	Variable
Slope	1 to 4%	0 to 2%	1 to 4%	30 to 90%

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Table 2. Cost estimate for the non-wetlands revegetation plan for the Sahko Hydropower project

Item	Qty	Unit	Unit cost	Cost
Forebay embankment	3600	sq. ft.	$0.10	$360
Sediment basin embankment	1950	sq. ft.	$0.10	$195
Penstock trench	10800	sq. ft.	$0.10	$1,080
Powerhouse area	8700	sq. ft.	$0.10	$870
TOTAL COST				$2,505

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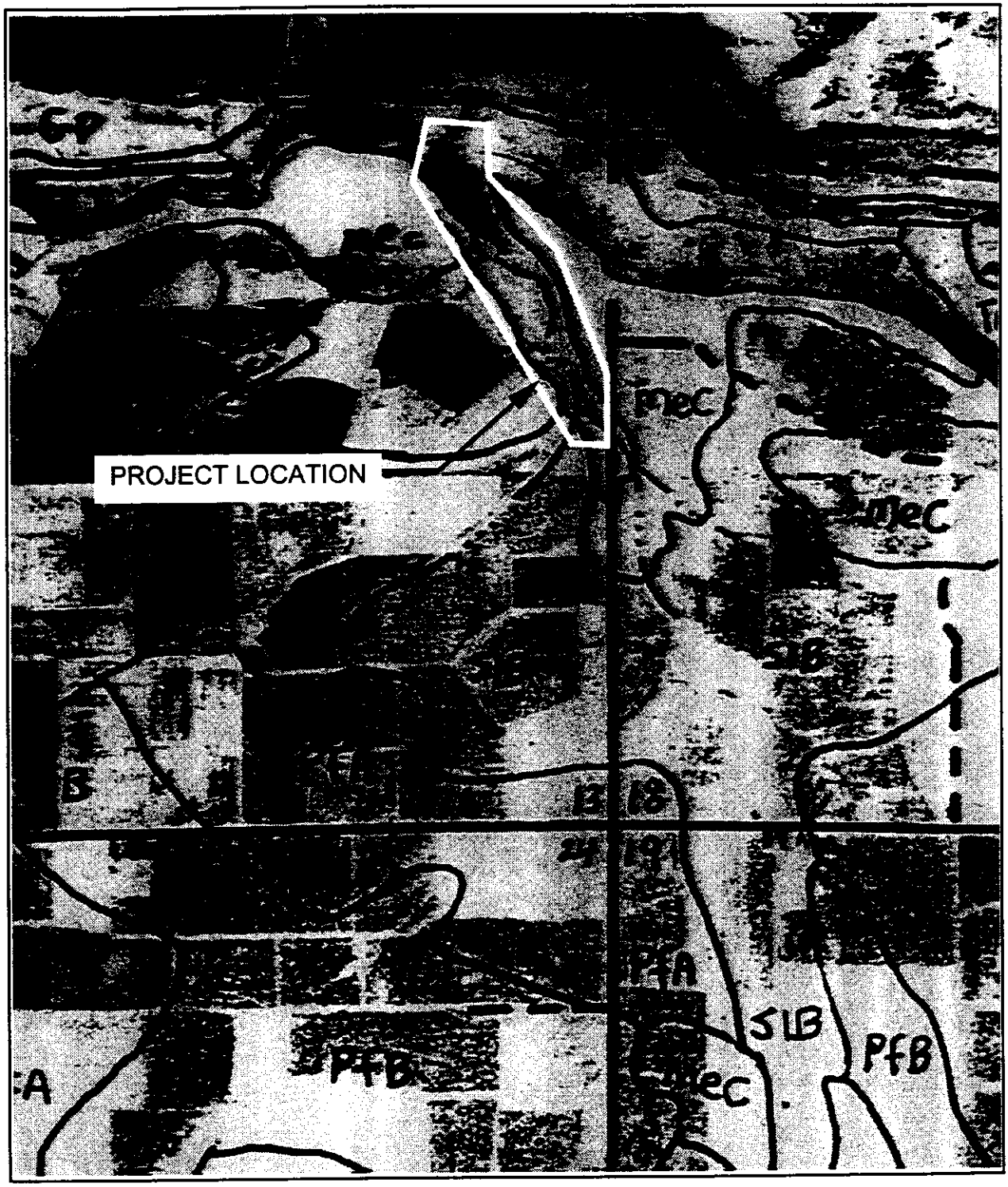


Figure 1. Soil unit map in the Sahko Hydropower project vicinity. Source: Natural Resources Conservation Service.

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NOV 06 1998

Water Right Number - 47-08271 Prefix Translation: WATER RIGHT Old (D) Number -

Last Name	First Name	Address
*** C - CURRENT OWNER *** MILLER ENTERPRISES INC	J M	1 - PO BOX 595 2 - 3 - City- TWIN FALLS State- ID Zip- 833030595 Phone - 208-622-7215

Priority Date	Region	Stage	Status
04/24/1991	17 SOUTHERN	P - PERMIT	

Source	Tributary
UNNAMED STREAM	SNAKE RIVER
WASTE WATER	SNAKE RIVER

Point of Diversion

Twn	Rng	Sec	Tract	Lot	RFlg	County	Diversion Name	Diversion Rate	Diversion No.
09S	15E	13	SE SE NE			(83) TWIN FALLS			

Water Use

Code	Description	Period From	Period To	Diversion Rate	Diversion Volume
04	STOCKWATER	01/01	12/31	0.050	
28	POWER	01/01	12/31	20.000	

Total Div. Rate	Total Div. Volume	Total Div. Capacity
20.000		

Place of Use

Twn	Rng	Sec	Tract	Lot	Acres	Code	Description	County
09S	15E	13	NE NE			04	STOCKWATER	(83) TWIN FALLS
09S	15E	13	SE NE			04	STOCKWATER	(83) TWIN FALLS
09S	15E	13	NE NE			28	POWER	(83) TWIN FALLS

Diversion Means -

Non-Irrigation Use -

Other Rights for Same Use -

Remarks

Use of water for power under this right shall be non-consumptive.
Stockwater use is for 150 range cattle and 50 sheep.

Old Water Right Numbers

No Old Water Right Numbers found.

Conditions of Approval

26A - Project construction shall commence within one year from the
- date of permit issuance and shall proceed diligently to
- completion unless it can be shown to the satisfaction of the
- Director of the Department of Water Resources that delays were

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NOV 06 1998

Water right number - 47-08271 Prefix Translation: WATER RIGHT

Conditions of Approval

(Condition continued from previous page)
- due to circumstances over which permit holder had no control.

051 - Any license issued by IDWR pursuant to the right or portion
- thereof for the use of trust water is subject to a term review
- of 20 years after the date of this approval to determine
- availability of water for the use and to re-evaluate the public
- interest at the end of the term.

052 - Diversion and use of water under this right is subject to an
- annual use fee if rules are subsequently promulgated which
- provide for the submittal of the fee.

053 - The Director retains jurisdiction over this right and may
- change, add, or remove any requirement as determined to be
- appropriate.

08A - This right is subject to the provisions of Sections 42-205
- through 42-210, Idaho Code, restricting the sale, transfer,
- assignment, or mortgage of this right. Failure to comply with
- these provisions is cause for immediate cancellation of this
- right.

17K - The water right acquired under this permit for hydropower
- purposes shall be junior and subordinate to all rights to the use
- of water, other than hydropower, within the State of Idaho that
- are initiated later in time than the priority of this permit and
- shall not give rise to any right or claim against future rights
- to the use of water, other than hydropower, within the State of
- Idaho initiated later in time than the priority of this permit.

025 - This right does not constitute Idaho Public Utilities Commission
- or Federal Energy Regulatory Commission approval that may be
- required.

01F - The right holder shall either install a measuring device or a
- flow measurement port or provide a certified measurement or
- computation of flow based upon system design to be prepared by a
- professional engineer.

09E - Water used under this right when discharged into a natural
- channel or subsurface system shall meet Idaho Water Quality
- Standards.

17M - The Director retains jurisdiction of this right in order to
- limit the use of water for hydropower generation purposes to a
- specific term of years as required by Section 42-203B(7), Idaho
- Code.

18B - The storage of water under this right is contingent upon the
- certification of the dam and authorization of storage per the dam
- safety provisions of the Idaho Code.

020 - Use of water under this right may be affected by an agreement
- between the protestant and the right holder.

Decree Plaintiff | Decree Defendant | Decree Date
00/00/0000

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NOV 06 1998

Water right number - 47-08271 Prefix Translation: WATER RIGHT

-Comments-

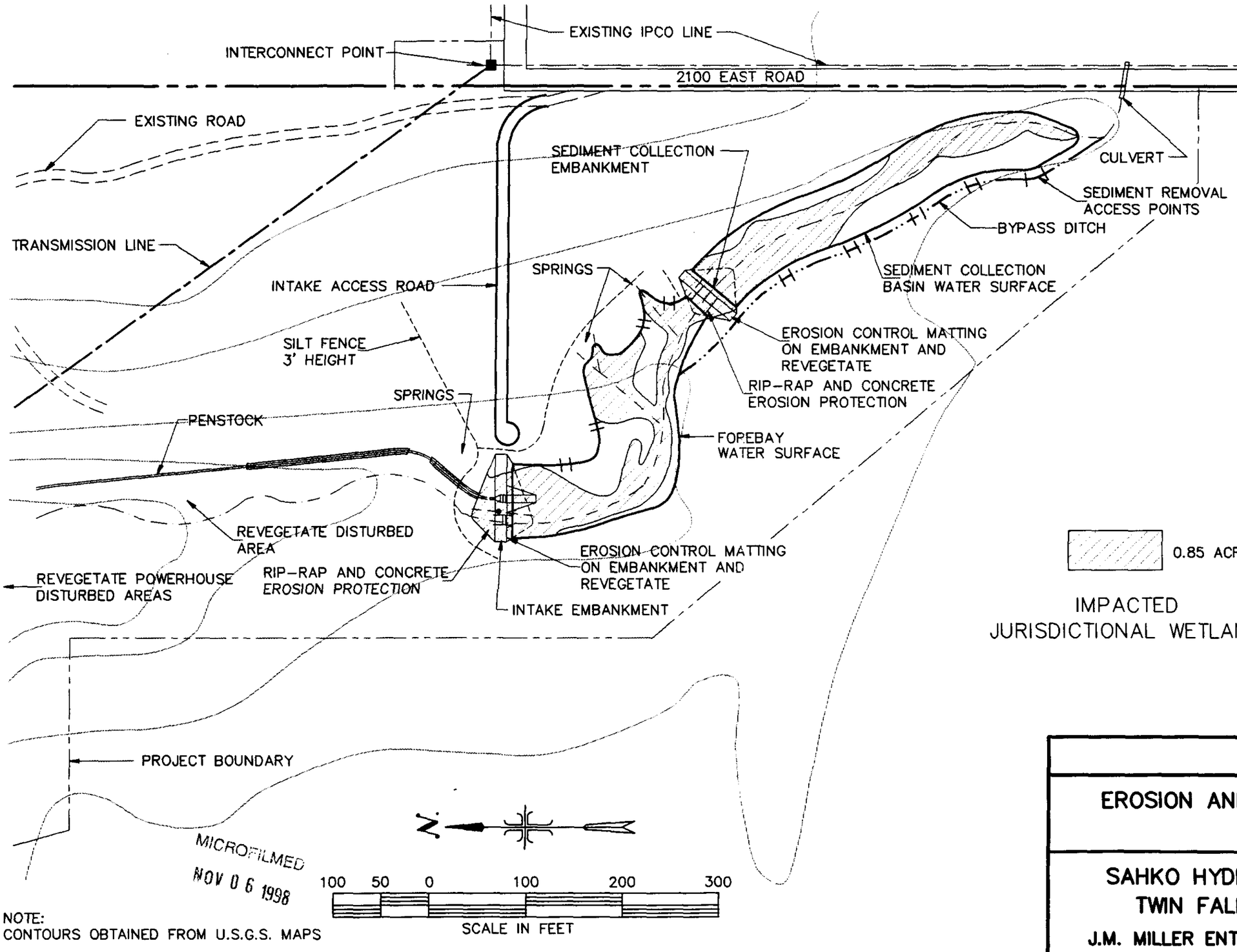
Date: 10/27/1993 User Id: ZIMMERMA Subject: MORATORIUM & TW EXEMPTION
This permit is located within the Eastern Snake River Plain Moratorium and trustwater boundary; however, its non-consumptive uses are within the acceptable parameters of the Moratorium and trustwater guidelines.
Date: 10/27/1993 User Id: ZIMMERMA Subject: CORPORATE OFFICER
The only corporate officer of J M Miller Enterprises, Inc is; James M Miller, President
Date: 10/27/1993 User Id: ZIMMERMA Subject: DIVERSION DESCRIPTION
Rockdam diversion in wastewater from #39, #39A, and S2 to channel through 24" CMP pipe. 2 dams at 20' each with reservoir cpacity of 40 AF.

Audit Fields - 06/11/91 BALDWIN 08/07/91 SKAGGS 08/30/91 BALDWIN 08/07/92 BALDWIN 11/27/92 BALDWIN 10/26/93 ZIMMERMA 10/27/93 ZIMMERMA 11/05/93 ZIMMERMA

Water Rights Dates and Flags Area

Proof Due Date	- 11/01/1998	Field Exam Made	- 00/00/0000	Field Exam Fee	-
Approved/Denied	- 11/16/1993	Protested Date	- 00/00/0000	Swan Falls	- M
Proof Made Date	- 00/00/0000	Hearing Date	- 00/00/0000	Temporary Right	- P
Exam to S.O. Date	- 00/00/0000	Verified Date	- 00/00/0000	DLE/Carey Act	-
Order Show Cause	- 00/00/0000	Receipt Number	- S013275	Water District	-
Licensed Date	- 00/00/0000	Appl Received	- 04/24/1991	Transfer/Amended	-
Decree Date	- 00/00/0000	Name Connector	-	POU Ownership Flag	- Y
Presumption Flag	-				

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NOV 06 1998



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NOV 0 6 1998

NOTE:
CONTOURS OBTAINED FROM U.S.G.S. MAPS

FIGURE 2

EROSION AND SEDIMENT CONTROL PLAN

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

7 | 18
12 | 13

N

100 50 0 100 200 300
SCALE IN FEET

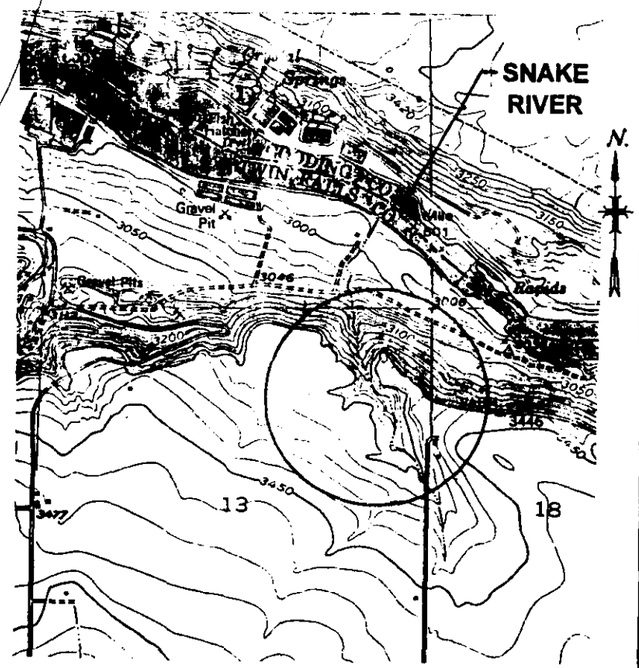
PROJECT LOCATION :
NE1/4 OF SECTION 13
TOWNSHIP 9 SOUTH
RANGE 15 EAST
BOISE MERIDIAN

3100
3200
3300
3400

INTERCONNECT POINT
EXISTING IPCO LINE
2100 EAST ROAD
EXISTING ROAD
PROJECT BOUNDARY
TRANSMISSION LINE
INTAKE ACCESS ROAD
SEDIMENT COLLECTION EMBANKMENT - CREST ELEV. = 3397.0
BYPASS LINE
SPRINGS
CULVERT
BYPASS DITCH
SEDIMENT COLLECTION BASIN - WATER SURFACE ELEV. = 3393.5
OVERFLOW SPILLWAY CREST ELEV. = 3393.0
FOREBAY WATER SURFACE ELEV. = 3390.0
PENSTOCK INTAKE STRUCTURE
BYPASS LINE
INTAKE EMBANKMENT CREST ELEV. = 3394.5
OVERFLOW SPILLWAY CREST ELEV. = 3390.0
PENSTOCK
PENSTOCK
EXISTING WEIR
PROJECT BOUNDARY
TRANSMISSION LINE
EXISTING ROAD
SWITCH YARD
EXISTING DRAINAGE
POWERHOUSE

IDAHO

TWIN FALLS COUNTY



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NOV 0 6 1998

NOTE:
CONTOURS OBTAINED FROM U.S.G.S. MAP

TOPOGRAPHC MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

FEDERAL ENERGY REGULATORY COMMISSION

ROUTING CODE _____

WASHINGTON, D.C. 20426

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

WASHINGTON JUN 12'96 DC

U.S. OFFICIAL MAIL
PENALTY FOR PRIVATE USE $300
PB METER 7250412
$0.43
U.S. POSTAGE

47-8271

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NOV 06 1998

RECEIVED
JUN 20 1996
Department of Water Resources
Southern Region

P-11060 101465
LOREN HOLMES DISTRICT MGR
IDAHO DEPARTMENT OF WATER RESOURCES
1301 NORTH ORCHARD STREET

BOISE, ID 83706-2237

RECEIVED
JUN 24 1996
Department of Water Resources

47-8271

FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, D.C. 20426

Project No. 11060-001-Idaho
Sahko Hydroelectric Project
J. M. Miller Enterprises, Inc.

Mr. J. M. Miller
J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83303

JUN - 5 1998

Dear Mr. Miller:

Staff needs additional information to complete its review of your application. A listing of the information needed is enclosed as Schedule A. Under section 4.32(g) of the Commission's regulations, you have 6 months from the date of this letter to provide the information requested. If the requested information causes any other part of the application to be inaccurate, that part must also be revised and refiled by the due date.

An additional study was requested during public notice of the tendering of your application. We have determined the study should be conducted and have included it as item 8 in Schedule A. A copy of our response to the entity requesting the additional study is also enclosed.

Within 5 days of receipt of this letter, provide a copy of this letter and the Schedule A to all agencies you will consult in response to this additional information request. Then, when you file the requested information with the Commission, you must provide a completed copy of the information to each agency consulted during initial consultation and all parties on the Commission's service list.

After the additional information has been received and found acceptable, the Commission will issue a second public notice indicating that the application is ready for environmental analysis, and solicit comments, recommendations, terms and conditions, or prescriptions on the application, and your reply comments.

All filings should contain an original and 8 copies and should be addressed to the Secretary of the Commission and mailed to the following address: Federal Energy Regulatory Commission, 888 First St., NE, Washington, DC 20426.

You are advised to contact Ms. Deborah Frazier-Stutely on (202) 219-2842, if you have any questions concerning what information must be provided.

Sincerely,

John Clements

John H. Clements
Director, Division of
Project Review

Enclosures:
Schedule A
Letter to Shoshone-Bannock Tribes

cc: Tracy Ahrens
J-U-B- Engineers, Inc.
800 Falls Ave.
Twin Falls, ID 83301

Donald W. Block, P.E.
J-U-B- Engineers, Inc.
800 Falls Avenue
Twin Falls, ID 83301

Mailing List

MICROFILMED
NOV 0 6 1998

Schedule A:
Project No. 11060-001

ADDITIONAL INFORMATION

You have 6 months from the date of this letter to provide the following additional information. In the items listed below, you are asked to provide agency comments. You should make written requests for these comments and must allow a minimum of 30 days for agency response before filing the information. If the agencies do not reply, you should provide the Commission with dated copies of the letters of request.

1. The proposed project has the potential to affect geology and soils resources and cause soil erosion and sedimentation. Please provide the following information and plans.

a. Describe the geology and soils within the project area including geologic formations and soil types and what affect the proposed project construction would have on geology and soils resources.

b. Develop a draft erosion and sediment control plan (ESCP), consistent with and to the degree of completion to the drawings submitted in exhibit F of the license application.

The requested draft ESCP should be the basis for the final ESCP that would be required under any license issued for a project with land-disturbing activities. The draft ESCP must include, at minimum, the following:

(i) Topographic maps using a scale of 1 inch equal to no more than 200 feet. The maps must show:

- All erosion and sediment control measures you propose to be used at temporary and permanent project sites;
- All access and haul roads;
- All drainage control measures;
- All rip-rap areas;
- All cofferdams and their placements;
- All sediment control ponds; and
- All borrow and spoil disposal sites - including stabilization and revegetation of the sites.

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(ii) A draft sediment removal plan locating all disposal sites, methods of removal and transporting, methods that will be used to prevent erosion and sedimentation, and methods that will be used to stabilize the disposal sites.

(iii) Provisions for promptly rehabilitating and revegetating all areas disturbed during construction and for maintaining these areas during project operation.

You must associate all of the above items with the project facilities, and include detailed descriptions -- keyed to the locations on the topographic maps -- explaining how your proposed measures would prevent or lessen the impacts of the proposed improvements and activities to the environment.

Before you file the completed plans with the Commission, you must provide the agencies with a copy of the plans for their review and comment. The agencies must be given 30 days to provide comments on the plans. Then you must describe how you have accommodated agency comments and recommendations in the plans and, if you disagree with any agency recommendations, explain why, based on actual site conditions.

2. In a letter dated October 21, 1992, the U.S. Fish and Wildlife Service (FWS) provided a list of five species of mollusks -- Snake River Physa, Idaho Spring snail, Utah Valvata Snail, Bliss Rapids Snail, and Banbury Springs lanx -- proposed for listing under the Endangered Species Act (ESA) that may be found in the project area. The FWS said they did not anticipate any project effects to the Snake River mollusks because the project is 0.5 mile from the Snake River (according to a letter from the FWS dated December 10, 1992). However, since the list you obtained from the FWS was dated in 1992, please ask the FWS for an updated list and file this list with the Commission.

During the project site visit on February 21, 1996, a few snails (species unknown) were observed by staff at the proposed project site. We are unsure whether these were any of the listed species. Therefore, you must consult with the FWS and determine if a survey is necessary to determine whether your project may affect any threatened and endangered species or critical habitats. If so, you must engage a biologist who is knowledgeable in the identification and biology of these species to survey all areas of potentially suitable habitat within the project boundary and within nearby or downstream areas affected by project operations.

You must file the following information:

a. documentation of consultation with the FWS;

b. a description of the methods and results of any surveys

deemed necessary;

(c) a description of the effects of project operations on threatened and endangered species found in the surveyed areas; and

(d) detailed plans to protect threatened and endangered species found in the surveyed areas.

Provide the comments of the FWS on your response to this request.

3. You propose to install a sediment collection basin to collect water-borne sediment from agricultural lands upstream from the project. Consequently, the sediment collection basin may improve water quality of the Kastelu drain, however, it may affect the hydrology of the area downstream of the project. In written scoping comments dated March 20, 1996, a private landowner -- Canyon Springs L.L.C.-- says that because of the porosity of the soil, water would filter down through the soil out of the basin, emerge at some point downstream, and affect the hydrology of the area. You did not provide adequate information for us to determine the effects of the operation of the sediment collection basin on the water distribution in the Kastelu drain and surrounding areas.

Therefore, please describe and determine whether the sediment collection basin would likely affect the hydrology of the area downstream of the project. The discussion should include potential effects to the hydrology and water quality of areas downstream of the project, sediment collection water retention rates, etc. Provide a copy of your response to Canyon Springs L.L.C., Division of Environmental Quality, and U.S. Geological Survey and file their comments on your response with the Commission.

4. In the application, you propose to seed the forebay shoreline and revegetate the pipeline and powerhouse areas after construction. For us to assess the feasibility of this proposal, you must provide an estimated cost for implementing this proposal.

5. Project construction would result in the loss of 0.85 acre of wetland habitat. This loss would have a cumulative adverse impact on the wetland and riparian habitat supported by irrigated agriculture in the roughly 1,740-acre project watershed. To allow us to assess the magnitude of this impact, provide an estimate of the amount of wetland and riparian habitat in the watershed of the project.

6. You provided a conceptual wetland mitigation plan, but did not provide the cost to implement such a plan. Provide estimated costs and the assumptions used to calculate those costs (e.g., the proposed number and design of nesting platforms) for your proposed wetland mitigation, including subsequent monitoring.

7. Diverting the springs' flows through the proposed penstock could adversely affect riparian habitat supported by seeps. In a letter dated March 14, 1996, Idaho Fish and Game recommends that you monitor the effects of flow diversions on the existing riparian habitat on the slope above the powerhouse. To allow us to evaluate this recommendation, after consultation with Idaho Fish and Game and FWS, provide a plan to monitor existing riparian vegetation that could be affected by flow diversions, including details of the monitoring (method and frequency of data collection, length of monitoring period), an estimate of the cost of monitoring, and a description of steps you would follow if monitoring reveals adverse impacts to riparian vegetation.

8. According to a letter dated January 7, 1994, from Verna R. Auck (P. O. Box 591, Fort Hall, Idaho 83203), a member of the Shoshoni-Bannock Tribes (Bannock), your project may affect archeological sites and traditional cultural properties of the Bannock. Based on these comments the Shoshoni-Paiute Tribes (Paiute) may have concerns as well. Please consult with the Bannock (Kelsey Edmo, Sr., Chairman, Shoshone-Bannock Tribes, P.O. Box 306, Fort Hall, Idaho 83203), and the Paiute (James Paiva, Chairman, Shoshoni-Paiute Tribes, P.O. Box 219, Owyhee, Nevada 89832), and the Idaho State Historic Preservation Officer (SHPO) to determine whether any such sites or properties are located in the project area and would be affected by the project, and what mitigative measures are necessary.

Specifically do the following:

(a) Provide a copy of your application and a copy of your cultural resources report to the Bannock and the Paiute for review;

(b) File copies of any letters of comment received from the Bannock, the Paiute, and the SHPO about this request and your response to them;

(c) File a plan for avoiding or mitigating impacts to sites of cultural concern in the project area identified by the Paiute and the Bannock, or an explanation why a plan is not needed and the project has no effect on the sites identified; and

(d) If studies are required to identify such sites, file a schedule for completing such studies and filing them with the Commission within 180 days of the date of this letter.

The plan and studies should be based on the recommendations of the Bannock, the Paiute, and the SHPO, and the National Park Service's National Register Bulletin 38 entitled "Guidelines for Evaluating and Documenting Traditional Cultural Properties". You may obtain a copy of Bulletin 38 by telephoning 202-343-9500.

To keep knowledge of cultural sites confidential to the Bannock and the Paiute, you should file two copies of this information directly with our cultural resources staff.

Send this information--clearly marked "Confidential--Not for Public Disclosure"--to Dr. Edwin D. Slatter, Federal Energy Regulatory Commission, Room 1069, 888 First St.,NE, Union Center Plaza, Washington, D.C. 20426.

When you file this information with our staff, make a separate filing with the Secretary of the Commission that does the following:

1. Says you've made the filings with our staff; and

2. Briefly describes the purpose and contents of the filings--without referring to site locations or disclosing information considered sacred or private to the Paiute or the Bannock--so reviewing parties know how you answered our request

If additional information on other environmental resource areas is filed at the same time, make this filing a part of it.

9. The following features of your proposed project would be visible from the north rim of the Snake River Canyon and the bottom of the canyon: the earthen embankment, powerhouse, penstock, and portions of the transmission line.

Your application provided a short narrative description of project features viewed from the north rim of the Snake River Canyon and the canyon bottom. The application, however, did not provide enough information to adequately assess the potential impact the facilities would have on the visual resources, nor does the application provide measures to mitigate the effects of the project on the visual resource.

You will need to do a study and provide visual simulations that depict the proposed earthen embankment, powerhouse, penstock, and transmission line, as viewed from, (1) a critical view point on the north rim of the Snake River Canyon, and (2) a critical view point on the bottom of the Snake River canyon. A

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suggested viewpoint might be the popular fishing hole located across the river from the proposed project.

Your study should include a discussion of the effect operation of the project would have on the Kastelu drainage waterfall as seen from the north rim of the canyon. Give your conclusions concerning the effect, and the reasons for your conclusions, based on a comparative visual analysis of the existing flows and the flows during project operations and taking into consideration the aesthetic quality of the surrounding landscape, and the potential public exposure.

If the study determines that measures are needed to mitigate the project's effects on the visual resource, you should prepare a visual resource management plan. The plan, at a minimum, should include your specific proposals for:

(a) blending the project works into the existing landscape character;

(b) revegetating, stabilizing, and landscaping areas disturbed by construction activities; and

(c) grading, planting grasses, repairing slopes damaged by erosion, and preventing future erosion.

Items b and c should be developed in coordination with the ESCP discussed in Question No. 1. The plan should also include: (1) an implementation schedule; (2) monitoring and maintenance programs for project construction and operation; and (3) provisions for the plan's periodic review and revision.

The study and the plan should be prepared after consultation with the Idaho Department Parks and Recreation. The study and plan should include copies of the agency's comments and recommendations. If you do not adopt a recommendation, the filing should include your reasons based on visual and landscape conditions at the site.

10. You say on page A-3 of the application that you propose to sell the project's energy to the Idaho Power Company. To help us evaluate the economics of the Sahko Project, we need a copy of the latest order of the Idaho Public Utilities Commission on the Idaho Power Company avoided cost rates.

11. Please provide a copy of the back up calculations to support the average annual generation figures given on page A-1 of the application. We also need the project's dependable capacity and the basis for its determination.

12. All project facilities including any transmission lines necessary to reliably deliver power to the interconnected system

or market must be licensed. Additional information is needed to more clearly understand the project and to determine what transmission facilities must be included in the license. Therefore, please provide the following electrical information:

(a) the generator voltage;

(b) the transformer data (high/low side voltage, kVA rating, and connections);

(c) the name and/or circuit number of the Idaho Power Company line to which the project would interconnect;

(d) a statement as to whether the proposed transmission line would be owned by J. M. Miller Enterprises, Inc., (the applicant); and

(e) a one-line electrical diagram (fully annotated--not a map) of the project showing the generators, step-up transformer(s), and line connection to the Idaho Power Company's system.

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JUN 17 1996
Department of Water Resources
Southern Region

J-U-B ENGINEERS, INC.
ENGINEERS SURVEYORS PLANNERS
800 FALLS AVENUE
TWIN FALLS, IDAHO 83301
PHONE: 208-733-2414
FAX: 208-733-9455

LETTER OF TRANSMITTAL

DATE: 6/14/96

TO: Mr. Allen D. Merritt
District Manager
Idaho Dept. of Water Resources
222 Shoshone St. East
Twin Falls, ID 83301

FROM: Tracy A. Ahrens, P.E.

PROJECT: Sahko Hydroelectric Project
FERC Project No. 11060-001-Idaho

ITEM: FERC Additional Information Request

As required by the Federal Energy Regulatory Commission (FERC) in their letter dated June 5, 1996 to Mr. J.M. Miller, J.M. Miller Enterprises, Inc. we are hereby transmitting to you a copy of the following items:

1) Federal Energy Regulatory Commission letter to Mr. J.M. Miller, J.M. Miller Enterprises, Inc. dated June 5, 1996.

2) Schedule A - Additional Information (Attachment to FERC letter-Item 1).

Please call if there is any problems with this transmittal.

Respectfully,

Tracy Ahrens

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J.U.E. ENGINEERS
RECEIVED
JUN 11 1996
TWIN FALLS, IDAHO

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426

Project No. 11060-001-Idaho
Sahko Hydroelectric Project
J. M. Miller Enterprises, Inc.

Mr. J. M. Miller
J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83303

JUN - 5 1996

Dear Mr. Miller:

Staff needs additional information to complete its review of your application. A listing of the information needed is enclosed as Schedule A. Under section 4.32(g) of the Commission's regulations, you have 6 months from the date of this letter to provide the information requested. If the requested information causes any other part of the application to be inaccurate, that part must also be revised and refiled by the due date.

An additional study was requested during public notice of the tendering of your application. We have determined the study should be conducted and have included it as item 8 in Schedule A. A copy of our response to the entity requesting the additional study is also enclosed.

Within 5 days of receipt of this letter, provide a copy of this letter and the Schedule A to all agencies you will consult in response to this additional information request. Then, when you file the requested information with the Commission, you must provide a completed copy of the information to each agency consulted during initial consultation and all parties on the Commission's service list.

After the additional information has been received and found acceptable, the Commission will issue a second public notice indicating that the application is ready for environmental analysis, and solicit comments, recommendations, terms and conditions, or prescriptions on the application, and your reply comments.

All filings should contain an original and 8 copies and should be addressed to the Secretary of the Commission and mailed to the following address: Federal Energy Regulatory Commission, 888 First St., NE, Washington, DC 20426.

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You are advised to contact Ms. Deborah Frazier-Stutely on (202) 219-2842, if you have any questions concerning what information must be provided.

Sincerely,

John Clements

John H. Clements
Director, Division of
Project Review

Enclosures:
Schedule A
Letter to Shoshone-Bannock Tribes

cc: Tracy Ahrens
J-U-B- Engineers, Inc.
800 Falls Ave.
Twin Falls, ID 83301

Donald W. Block, P.E.
J-U-B- Engineers, Inc.
800 Falls Avenue
Twin Falls, ID 83301

Mailing List

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Schedule A:
Project No. 11060-001

ADDITIONAL INFORMATION

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12. All project facilities including any transmission lines necessary to reliably deliver power to the interconnected system

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(a) the generator voltage;

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(c) the name and/or circuit number of the Idaho Power Company line to which the project would interconnect;

(d) a statement as to whether the proposed transmission line would be owned by J. M. Miller Enterprises, Inc., (the applicant); and

(e) a one-line electrical diagram (fully annotated--not a map) of the project showing the generators, step-up transformer(s), and line connection to the Idaho Power Company's system.

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47-08271

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

DATE : JUL 2 1996

MEMORANDUM TO : To the Party Addressed

FROM : John H. Clements, Director
Division of Project Review
Office of Hydropower Licensing

SUBJECT : Scoping Document 2 for the Sahko Hydroelectric Project, FERC No. 11060-ID

The Federal Energy Regulatory Commission is reviewing the application for a license to construct, operate, and maintain the proposed 500-kilowatt Sahko Hydroelectric Project (project). The project would be located in the Kastelu drainage area about 0.5 mile from the confluence with the Snake River, in Twin Falls County, near the town of Filer, Idaho. The project is located on undeveloped private lands used for cattle grazing.

Scoping Document 2 for the Sahko Hydroelectric Project is enclosed for your information. Scoping Document 1 was issued November 28, 1995, to identify issues, concerns, and opportunities associated with the proposed action. We have revised Scoping Document 1 based on the written and verbal comments received during the scoping process. You will find important changes highlighted in italicized bold type.

We have determined that additional information is needed before we can begin our independent environmental analysis (EA) for this project. Once this information is obtained, we will issue a notice that the project is ready for environmental analysis, then prepare a draft EA based on the outline and issues in Scoping Document 2 and on all comments received.

Please call Ms. Deborah Frazier-Stutely at (202) 219-2842 if you have any questions.

Enclosure:
Scoping Document 2 for the Sahko Hydroelectric Project

SCOPING DOCUMENT 2

SAHKO HYDROELECTRIC PROJECT

FERC Project No. 11060-001

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July 1996

Federal Energy Regulatory Commission
Office of Hydropower Licensing
Washington, D.C.

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SCOPING DOCUMENT 2

Sahko Hydroelectric Project
FERC No. 11060-001

1.0 INTRODUCTION

On December 13, 1993, J. M. Miller Enterprises (J. M. Miller) filed a license application with the Federal Energy Regulatory Commission (Commission) for the construction, operation, and maintenance of the proposed 500-kilowatt (kW) Sahko Hydroelectric Project. The project would be located in the Kastelu drainage area about 0.5 mile from the confluence with the Snake River, in Twin Falls County, near the town of Filer, Idaho (Figure 1). The project is located on undeveloped private lands used for cattle grazing.

The Commission, under the authority of the Federal Power Act (FPA)1/, may issue licenses for up to 50 years for the construction, operation, and maintenance of non-federal hydroelectric developments.

Under the Commission's regulations, issuing a new license for the project first requires preparations of either an Environmental Assessment (EA) or Environmental Impact Statement (EIS), in accordance with the National Environmental Policy Act (NEPA) of 1969 2/. The Commission will prepare an EA to decide whether issuing a license would be a major federal action significantly affecting the quality of the human environment. The EA will describe and evaluate the site-specific and cumulative effects of J. M. Miller's proposed action and its alternatives.

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1/ U.S.C. Sect. 791(a)-825(r)

2/ Pub. L. 91-190.42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, §4(b), Sept. 13, 1982.

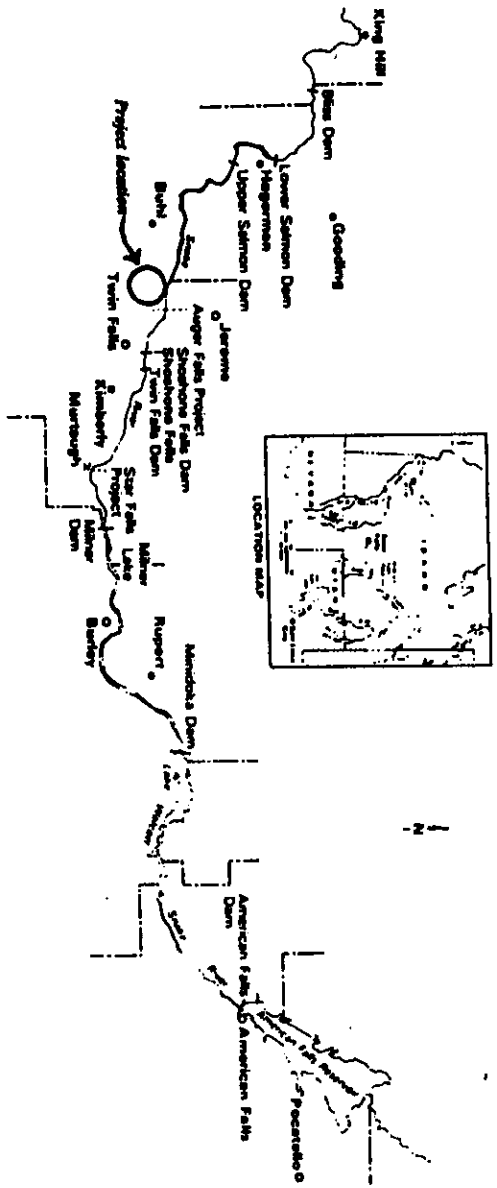


Figure 1. Location of the proposed Sabko Hydroelectric Project in the Middle Snake Reach of the Upper Snake River Basin (Source: FERC'S DEIS for Four Hydroelectric Projects on the mainstem of the Snake River, 1987.)

2.0 SCOPING

Scoping is the process used to identify issues, concerns, and opportunities associated with a proposed action; the process, according to NEPA, should be conducted early in the planning stage of the project.

2.1 Purposes of Scoping

Scoping Document 1 was prepared and issued January 5, 1996, for the following purposes:

- Invite participation of federal, state, and local agencies, any Indian tribes, and other interested persons to identify significant environmental and socioeconomic issues related to the proposed action.
- Determine the depth of analysis and significance of issues to be addressed in the EA.
- Identify how the project would or would not contribute to cumulative impacts to the project area and the Middle Snake reach of the Upper Snake River Basin.
- Identify reasonable alternatives to the project that we should evaluate.
- Eliminate from detailed study the issues and resources that don't require detailed analysis during review of the project.

We revised Scoping Document 1 to reflect comments received during the scoping meetings and the 60-day comment period. This Scoping Document 2 presents the staff's current view of alternatives and issues to be considered in the EA. Changes to Scoping Document 1 are identified in italicized, bold type.

2.2 Scoping Meetings

Two scoping meetings were held on February 21 and 22, 1996, in Filer, Idaho. Announcement of these meetings and the February 21, 1996 site visit was made in Scoping Document 1, and published in the Federal Register (Vol. 61, page 4430) on February 6, 1996, and in the Twin Falls Times-News on February 15, 16 and 20, 1996.

2.3 Request for Information

We requested federal, state, and local resource agencies, applicants, Indian tribes, other entities, and individuals to forward to the Commission information that they believe will assist the Commission staff in conducting an accurate and

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thorough analysis of the site-specific as well as cumulative effects of licensing the Sahko Hydroelectric Project. *We received comments from Idaho Fish and Game, U.S. Department of the Interior, Bureau of Indian Affairs, Canyon Springs L.L.C., and Idaho Rivers United. As we have stated, changes in Scoping Document 1 resulting from these comments and those received during the scoping meetings are noted in this Scoping Document 2, and where appropriate, the origin of the comments is identified.*

3.0 PROPOSED ACTION AND ALTERNATIVES

3.1 J. M. Miller Enterprises's Proposed Action

J. M. Miller proposes to construct, operate, and maintain the Sahko Hydroelectric Project. The Commission is considering whether and under what conditions to issue a license for the project.

The proposed project would consist of: (1) a 12-foot-high, 12-foot-wide, 80-foot-long earthfill sediment collection embankment with a crest at elevation 3,397 feet mean sea level (msl), containing a broadcrest weir, a 4-foot-high, 14-foot-wide overflow spillway, and a bypass pipe; (2) a 500-foot-long bypass ditch to be used during maintenance; (3) a 12-foot-high, 12-foot-wide, 110-foot-long earthfill intake embankment with a crest at elevation 3,394.5 feet msl, containing a concrete overflow spillway, an 8-foot-wide box shaped intake structure, and bypass pipe; (4) two unnamed springs; (5) a 24-inch-diameter, 1,950-foot-long partially buried steel penstock with a butterfly valve; (6) a 25-foot-wide, 50-foot-long masonry block powerhouse containing one pelton turbine and generating unit with an installed capacity of 500 kW; (7) a 6-foot-wide, 3-foot-high, 30-foot-long rock rip-rap tailrace; (8) a switchyard; (9) a 2,000-foot-long, 34.5-kV transmission line tying into an Idaho Power Company line; and (10) related facilities.

The proposed project would operate run-of-ditch, where the project will use whatever flows enter the sediment impoundment as either irrigation waste flows or as emanating from the two unnamed springs on the applicant's property, and would generate about 1,178,000 kilowatthours of energy annually.

3.1.1 Proposed Protection and Enhancement

J. M. Miller proposes to operate the project as described above, with the following protection and enhancement measures

Water Quality

- Construct an earth-fill embankment 3/ to collect water-borne sediment from agricultural lands upstream from the project, consequently providing possible benefits to water quality.

Terrestrial

- Plant a seed mix along the perimeter of the forebay.
- Revegetate disturbed areas with native plant species along the pipeline alignment and at the powerhouse site.
- Mitigate wetland losses by implementing the following measures:
  - develop and expand wetland habitat within the forebay and sediment retention basin.
  - install nesting platforms around the forebay area.
  - place woody debris piles within the project area for wildlife cover.
  - fence the forebay and sediment retention basin to exclude cattle from a minimum 25-foot-wide buffer zone around the two impoundments.
  - maintain the forebay water surface at a lower elevation than the two existing spring heads.
  - monitor all wetland mitigation efforts.

Raptors

- raptor-proof the new 2,000-foot-long transmission line.
- limit any blasting to time periods that wouldn't disturb nesting bald eagles.

Cultural Resources

- Avoid any alteration of an existing access road in the vicinity of a historic site.

3/ The same as (1) in the project description.

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- Notify the Idaho State Historic Preservation Officer (SHPO) if any archeological remains are discovered during project construction.

3.2 Staff's Modification to J. M. Miller's Proposed Project

The Staff will consider alternative project configurations, designs, and locations, including mitigation and enhancement measures not proposed by the applicant. Alternative measures could include recommendations by resource agencies, other organizations, the general public, or the staff. To the extent that modification would reduce the power production from the proposed project, the staff will evaluate the costs and fossil-fueled-generation contributions to air-borne pollution.

3.3 No Action

Under the no-action alternative, the Commission would deny issuing a license for the proposed Sahko Hydroelectric Project. There would be no change to the existing environment, nor would any environmental enhancement measures be implemented. The no-action alternative is the benchmark from which we compare the proposed action and any action alternative.

4.0 SCOPE OF CUMULATIVE ANALYSIS AND ENVIRONMENTAL ISSUES

4.1 Cumulative Effects

According to the Council on Environmental Quality's Regulations for implementing NEPA (50 CFR §1508.7), an action may cause cumulative impacts on the environment if its impacts overlap in space and/or time with the impacts of other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

Based on our review of J. M. Miller's license application and agency comments, we've outlined the geographic and temporal scope of cumulative effects based on the resources that could be cumulatively affected by hydroelectric development and non-hydro activities, in the project area, and the Middle Snake reach of the Upper Snake River basin. These resources and cumulative effects will be addressed in the EA.

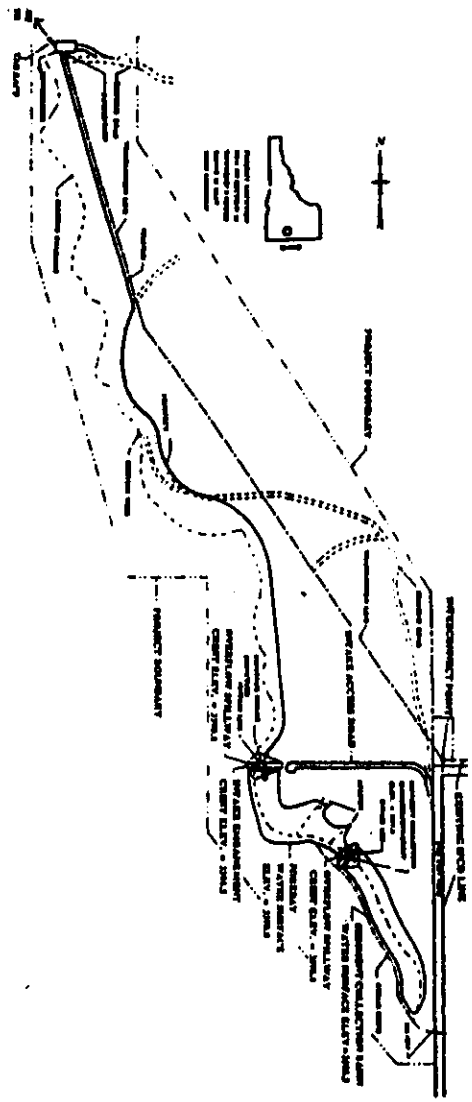


Figure 2. Project facilities for the Sahko Hydroelectric Project (Source: license application and FERC staff)

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4.1.1 Resources That Could Be Cumulatively Affected

We have identified (1) wetland/riparian habitat, (2) wetland-associated wildlife, (3) raptors, and (4) water quality, and its potential effect on aquatic habitat if Kastelu drainage area supports a fishery, as the resources that have the potential to be cumulatively affected by the Sahko Hydroelectric Project.

4.1.2 Geographic Scope

Our geographic scope of analysis for cumulatively affected resources is defined by the physical limits or boundaries of (1) the proposed action's effect on wetland/riparian habitat, wetland-associated wildlife, raptors, and water quality effects on aquatic habitat if the Kastelu drainage area supports a fishery, and (2) contributing effects from non-hydropower activities, such as agriculture, within the project area and the Middle Snake River reach of the Upper Snake River Basin.

The project area encompasses 1,740 acres. This area extends from the project site to the confluence with the Snake River, about 0.5 mile beyond the project area.

The Middle Snake reach in this document is defined as downstream of American Falls Dam to Thousand Springs Resevoir located in Twin Falls County, Idaho (see figure 1). The major tributaries of this reach are Rock Creek, Salmon Falls Creek, Malad River and Clover Creek.

For wetland/riparian habitat and wetland-associated wildlife, the geographic scope of analysis will encompass the project area, about 1,740 acres. We chose this geographic scope because springs in the project area, which support the wetlands that project construction would affect, are fed by subsurface water applied to adjacent agricultural land and flow subsurface across the top of the basalt bedrock.

For water quality effects on aquatic habitat, the geographic scope of analysis will encompass the Kastelu drainage area to the confluence with the Snake River. We chose this scope because water quality effects from project operation (e.g, increased water temperature, decreased dissolved oxygen, reduce sediment load) in combination with agriculture (e.g., sedimentation, fertilizers) could extend from the Kastelu drainage area to the Snake River, 0.5 mile away.

For raptors, the geographic scope of analysis will encompass the Middle Snake reach, as defined above. This scope was chosen because raptors using habitat in the project area for wintering and nesting forage over a wide area.

4.1.3 Temporal Scope

The temporal scope of our cumulative analysis in the EA will include past, present, and future actions and their effects on each resource that could be cumulatively affected. For purposes of our analysis, the temporal scope will look 50 years into the future, concentrating on the effect on the resources from reasonably foreseeable future actions, based on a potential 50-year license. The historical discussion will, by necessity, be limited to the amount of available information for each resource. We've identified the present resource conditions based on the license application and we will also document these in the EA.

4.2 Resource Issues

A list of resource issues and concerns that the staff has identified for analysis in the EA is presented below. Those issues identified by an asterisk (*) will be analyzed for cumulative impact, as well as site-specific effects. The project would be located on land used for agricultural proposes and is compatible with existing land uses, therefore Land Use has not been identified as an issue here. Since the project will not impact public use or create any recreational opportunities, recreation will not be addressed here or in the NEPA document. For convenience, the issues have been listed in categories related to technical disciplines.

Based on information provided at the February 21, 1996, site visit and Idaho Fish and Game's letter dated March 14, 1996, which recommends that we consider requiring the monitoring of the effects of flow diversion on the existing riparian habitat on the slope above the powerhouse, we have added the issue of monitoring the effects of flow diversion.

4.2.1 Geology and Soils

- o *What are the impacts of project construction on geology and soils resources.*
- o *What are the impacts of sediment removal on geology and soils resources.*

4.2.2 Water Quality

- *o *What effects would project construction and operation have on the water quality of the Kastelu drainage area.*

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4.2.3 *Fisheries Resources*

- o *What effects would project construction and operation have on the fishery resources of the Kastelu drain which flows into the Snake River.*
- o *Whether proposed endangered and threatened mollusks would be affected by project construction and operation.*

4.2.4 *Terrestrial Resources*

- *o *Whether the proposal to create wetlands would adequately mitigate the loss of 0.85 acres of wetlands.*
- *o *Whether diverting the spring's flows through the proposed penstock would adversely affect riparian habitat supported by seeps on the slope above the powerhouse.*

4.2.5 Threatened and Endangered Species

- *o What effect the proposed 2,000-foot-long transmission line would have on bald eagles and other raptors.

4.2.6 Cultural Resources

- o The effect of the project on traditional cultural properties of the Shoshone-Bannock Tribe.

4.2.7 Visual Resources

- o Whether the embankment, powerhouse, transmission line and related facilities will adversely effect the visual resources of the Snake River Canyon.

4.2.8 Developmental Resources

- o How will the proposed mitigation, enhancements, and protection measures affect the proposed project's economics.

5.0 EA PREPARATION SCHEDULE

The preliminary schedule for preparing the EA for the Sahko Hydroelectric Project is as follows:

MILESTONE	TARGET DATE
Public Scoping Process	January 1996
Request for Additional Information	Spring 1996 4/
Draft Environmental Assessment	*Winter* 1996
Final Environmental Assessment	*Spring* 1997

6.0 DRAFT EA OUTLINE

The tentative outline for the Sahko Hydroelectric Project EA is as follows:

SUMMARY

I. APPLICATION

II. PURPOSE AND NEED FOR ACTION
- A. Purpose of Action
- B. Need for Power

III. PROPOSED ACTION AND ALTERNATIVES
- A. J.M. Miller Enterprises' Proposal
  - 1. Project Facilities and Operations
  - 2. Proposed Environmental Measures
  - 3. Mandatory Requirements
- B. Staff's Modification of J.M. Miller's Proposal
- C. No-Action Alternative
- D. Alternatives Considered but Eliminated from Detailed Study

IV. CONSULTATION AND COMPLIANCE
- A. Agency Consultation
- B. Interventions
- C. Scoping
- D. Water Quality Certification
- E. Columbia River Basin Fish and Wildlife Program

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4/ *By letter dated June 5, 1996, the Commission requested additional information. The additional information is due by December 2, 1996.*

V. ENVIRONMENTAL ANALYSIS
A. General Description of the Project site and Middle Snake River Basin
B. Scope of Cumulative Effect Analysis (CEA)
1. Geographic Scope of CEA Resources
2. Temporal Scope of Analysis

C. Proposed Action and Other Recommended Environmental Measures
1. Geology and Soil Resources
2. Aquatic Resources
3. Terrestrial Resources
4. Threatened and Endangered Species
5. Cultural Resources
6. Visual Resources

D. No-Action Alternative

VI. DEVELOPMENTAL ANALYSIS

VII. COMPREHENSIVE DEVELOPMENT AND RECOMMENDED ALTERNATIVE

VIII. CONSISTENCY WITH COMPREHENSIVE PLANS

IX. RECOMMENDATIONS OF FISH AND WILDLIFE AGENCIES

X. FINDING OF [or NO] SIGNIFICANT IMPACT

XI. LITERATURE CITED

XII. LIST OF PREPARERS

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State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000
Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

November 17, 1993

J M MILLER ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 833030595

PERMIT APPROVAL NOTICE

RE: PERMIT NO. 47-08271

Dear Permit Holder:

Enclosed is a copy of your approved application for permit. Please be sure to thoroughly review the "CONDITIONS/REMARKS:" listing on the permit.

As a permit owner you must commence the excavation or construction of the diverting works within one year of the date the permit was issued, and you must proceed diligently until the project is completed. The date shown under condition no. 1 is the date when the project must be completed. You will receive a "Proof Due Notice" from this Department approximately 60 days prior to the completion date requiring you to file either a Proof of Beneficial Use form stating that the project has been completed or file a Request for an Extension of Time in which to file the proof statement.

This permit authorizes the appropriation of trust water. Trust water is defined as that portion of a particular hydropower water right which exceeds certain minimum stream flows established by state action, and is held in trust by the State of Idaho for the use and benefit of the people within the state. Conditions pertaining to a term review, annual use fee and jurisdiction of the permit are trust water conditions.

Be sure to note the special condition requiring you to install a measuring device, or a flow measurement port, or to provide a certified measurement or computation of flow based upon the design of the system to be prepared by a professional engineer.

Please be advised that water quality is subject to regulations of the Idaho Department of Health and Welfare. We suggest that you check with them before starting construction.

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If the diversion dam is 10 feet or more in height, or has an impounding capacity of 50 acre-feet or more, certain dam safety requirements must be met. Please contact the regional office nearest you for details.

Sincerely,

JIM JOHNSON
Water Rights Supervisor

JJ:dc

Enclosures

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APPLICATION FOR PERMIT
STATE OFFICE REVIEW

Application #: 47-8271 Date: 10/27/93 Reviewer: *Cindy Zimmerman*

AREA OF CONCERN? - No/Yes E.S.R.P. Mor + trustwater + T.F. GWMA
SYSTEM COMPLETED:
No - 26A-**P17**
Complete in 1 year - **P16**
Yes
Proof not submitted - **P16**
Proof submitted - N/A
GROUNDWATER:
+ 0.2 cfs <flo-ch> - 01G-**P03** (new), 01C-**P03** (existing), NMR
- 0.2 cfs - NMR <flow chart>
Drilling Permit:
Included w/permit - **P99** Permit No. _____
Existing well - N/A (if drilled before 7/1/87)
No WD permit? - 046-46A<Irr>-46B-**P23** (if drilled after 7/1/87)
SURFACE WATER: not in WD - 01C-**P03** (+.2 w/pump), **NMR** <flow chart>
LOCATION:
Water District - WD No. _____
Surface water - 005 or 005-01J-**P08** (+.2, or -.2 no pump)
or 005-01H-**P01** (-.2 w/pump); NMR
Groundwater - **P05** (if well has not been drilled)
In stream channel - 030 (stream channel alteration)
Irrigation Dist. - 023
Canal Co. Areas - 023
Drainage Districts - 024
Flood Control Dist. - 063
Boise Front (63) - 058 (Groundwater temperature)
Swan Falls Flag - 3/S <See condition code chart>
Trust - 051-052-053-**P74** (Consumptive Uses)
Non Trust <1> - 048-049
RIVER BASINS (Surface): *Water District Control Condition (005) &....*
Boise (63) - 05A (req), 11E (non-domestic use), NA
Payette (65) - 064(consump. use), 047-**P04**(Payette Lake), NA
Snake (01, 02 & 03) - 11A-**P04** (01), 061-**P07** (*02/03 No W.D.Cond.*), NA
USE:
Fish Propagation - 010/06A/09E-**P10**(WQ) & 07A-042-002-**P06**(MD)(*req*)
044 (N 1000 Spr)
Irrigation - 803(if GW use SW 1st)(+5A *do POU comparison*)
Power - 08A-17K-025-~~027~~ (*req*); 01F-**P19**; 09E-**P10**;
+25 cfs-**P18**; 17G(FERC) or ~~17M(FERC)~~; 18B-**P09**, NA
Mining - 06A/010/09E-**P10** & 054 (*req*)
Storage(✓ *3 compo.*) - 18A-for multi MD in WD, 18B-**P09** (+10' high dam)
Domestic (*surface*) - 021(Boise R ↑ L Peak), 27A(Payette R)
OWNERSHIP:
Non land owner - 004 (P/D or P/U)
PROTESTED:
Prehearing agreement - 020
OTHER CONDITIONS: -
REMARKS: - ① W02(150ec, 50s) ② ~~Use of water for power shall be non-consumptive. Diversion rate for 475 KW under 237 head~~

BENEFICIAL USE DUE: 11-1-1998
COMMENTS: - ① Mor, TW & TF GWMA Exempt ② Div Desc. ③ Corp Off.

J.M. MILLER ENTERPRISES GF

Form No. 202a
4/87

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT ANALYSIS SHEET

INITIAL REVIEW BY AJ. DATE 6-5-91 APPLICATION NUMBER 47-08271

REQUIRED INFORMATION

- ✓ Name (If applicant is a corporation or partnership, names must be provided for the director, officers, & other partners.)
- ✓ Address
- ✓ Source (See USGS Quad for names of water sources)
- ✓ Point of Diversion (10 acres for spring, lot & block descriptions for subdivisions, local name, flow and/or volume)
- ✓ County
- ✓ Quantity (flow and/or volume)
- ✓ Period of Use
- ✓ Nature of proposed use (Include description of use.)
- ✓ Description of diverting works
- ✓ Time required for beneficial use of water
- ✓ Place of use or acres irrigated
- ✓ Map
- ✓ Signature (If applicant is corp. partnership, or minicipality, title of signator is required)
- ✓ Fee
- ✓ Yes ___ No* In form to receipt

***PROPOSED PRIORITY DATE 4-24-91 11:06 AM

ADDITIONAL INFORMATION

- ✓ Overlapping place of use (Describe source & relationship to present application on the back.)
- ✓ Overlapping point of diversion
- ✓ Yes ___ No Field check required
  Field check by _____
- ___ Yes ✓ No Field report attached
- ___ Yes ✓ No Critical groundwater area
- ___ Yes ✓ No Groundwater management area
- ___ Yes ✓ No Send dam safety information
- ✓ Yes ___ No Send power requirement letter
- ~~✓~~ Yes X No 11/27 Send fish farm requirement letter
- ___ Yes ✓ No Power residency affidavit
- ___ Yes ✓ No Power efficiency form
- ✓ Yes ___ No Within trustwater boundary (If yes, attach trust water supplementary analysis sheet.)
- ✓ Yes ___ No Diversion greater than 5 cfs or 500 acre ft. (If yes, attach large diversion supplementary analysis sheet.)
- ✓ See reverse side for additional information

RECEIVED
OCT 25 1993
Department of Water Resources

SWAN FALLS HOLD? _____

*REQUEST THE FOLLOWING ADDITIONAL INFORMATION FROM THE APPLICANT _____

_____ Date Requested _____

PROCESSING ✓ Yes ___ No In form for advertising
___ Yes ✓ No Statewide advertising
✓ Yes ___ No Fee amount, receipt date & No. recorded on application

SEND COPIES TO ✓ Idaho Dept. of Health & Welfare ___ U.S. BLM
✓ Idaho Dept. of Fish & Game ___ U.S. Forest Service
___ Idaho Dept. of Lands ___ Water District
___ Adjudication Bureau Unit ___ Other ___

FINAL REGIONAL PROCESSING REVIEW

✓ Yes ___ No Affidavit of publication received
✓ Yes ___ No Application published correctly. If not, record action taken.

✓ Yes ___ No Publication dates & paper, recorded on application
✓ Yes ___ No Protests received — Withdrawn
Final date for protest 7/2/91
___ Yes ✓ No Protests, dates, resolution of protest, recorded on application
___ Yes ✓ No Recommendations attached
___ Yes ✓ No Measuring device required
✓ Yes ___ No Access port required
___ Yes ✓ No Will water be delivered by watermaster? If yes, what Dist. ___
✓ Yes ___ No Special conditions of approval or cover letter below. ___

01G, 17K, 17M, 08A, 25

___ See below for additional information

Date of priority recommended 4/24/91
By Karen D Kahler Date 10/6/93

STATE OFFICE REVIEW

___ See below for additional information

By ___ Date ___

ADDITIONAL INFORMATION

LOCAL PUBLIC INTEREST

Comments received from:

____City	____Idaho Fish & Game	____Irrigation District
____County	____Idaho Health & Welfare	____Canal Company
____Reservations	Division of Environment	____Other_____

Project impacts/implications report

COMMENTS

Form No.
7/87

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

CHECKLIST OF REQUIREMENTS LARGE DIVERSION SUPPLEMENTARY ANALYSIS SHEET*

EFFECT ON EXISTING RIGHTS

☑ Yes ☐ No Springs/surface streams with 5 or less existing users
- ☑ Identify number of impacted rights
- ☑ Name and address of users
- ☑ Location of points of diversion
- ☑ Nature of use of the existing rights

☐ Yes ☐ No Groundwater
- ☐ Plat showing proposed well and any other wells &/or springs within ½ mile radius

☑ Yes ☐ No Statement of design construction, or operation techniques which will be used to reduce impact on existing rights

SUFFICIENCY OF WATER SUPPLY

Water Requirements of Proposed Project
- ☑ Required diversion rate during peak use (Maximum rate)
- ☑ Required diversion rate during average use period
- ☐ Annual volume
- ☑ Season of use
- ☐ Volume to be consumptively used/year

Quantity of Water Available from Source
- ☐ Flow rates for surface water sources available during peak and average water demand period
- ☐ Properties of aquifers
- ☐ Other sources available for supplementation

GOOD FAITH, DELAY OR SPECULATION

☐ Copies of deeds, leases, easements, and right-of-ways from _____

☐ Power _____ applications affidavit form 205/206 is required

☒ Yes ☐ No Other needed permits, licenses, or approvals required. If yes, _____.

FINANCIAL RESOURCES

- ☑ Current certified financial statement
- ☑ Financial commitment letter/financial statement from committed party
- ☑ Project design/plans along with cost estimation to complete project

*For applications of more than 5 cfs. or more than 500 AF.

47-08271

LOCAL PUBLIC INTEREST

Comments received from:

- [ ] City
- [ ] County
- [ ] Reservations
- [x] Idaho Fish & Game
- [x] Idaho Health & Welfare Division of Environment
- [ ] Irrigation District
- [ ] Canal Company
- [ ] Other _____

Project impacts/implications report

COMMENTS

J. M. Miller Enterprises, Inc.

An Idaho Corporation

Mailing Address: P.O. Box 595 • Twin Falls • Idaho • 83303-0595
Farm Location: 4452 N. 2000 E. •Filer •Idaho •83328
Telephone (208) 326-4729
James M. Miller, President

RECEIVED

September 21, 1993

SEP 29 1993
Department of Water Resources
Southern Region Office

Mr. Loren O. Holmes, P.E., Manager
Southern Region
State of Idaho
Department of Water Resources
222 Shoshone St. East
Twin Falls, ID 83301
208-736-3033

RE: Application for Permit No. 47-08271;
Included information for satisfaction of Idaho Code 4,5,3. Requirements

This information is being submitted to satisfy the Section 4,5,3 Idaho Code requirements.

4,5,3,1.
4,5,3,1,1.
a. The only user below this applicant is David Millard who has submitted Applications #47-08198 appropriating 2 cfs for fish propagation and recreation.

4,5,3,1,2.
a. No well is proposed as part of this application. The wells located within one half mile of the proposed diversion are all residential and are in the names of **Well A:** Lyle Cunningham; **Well B**: Boyd Grace; **Well C:** Lewis W. Myers, and **Well D**: J. M. Miller (this applicant's residence). These are all noted on ***Exhibit A***.

4,5,3,1,3.
a. This will be a non-consumptive use. A sediment pond and small retention pond totaling about 1.2 surface acres in area will be added as part of the proposed project and will, thus, be an improvement on the the current water quality by settling out 70-80% of all solids. All of these solids are waste water from other farmer's irrigation run-off and represent none from my own property. This being a last control point before these wastes go into the Snake River, it has been identified by recent State of Idaho studies as a critical point for water quality improvement. Studies done on my behalf by JUB Engineering of Twin Falls and based on sediment data collected in the State of Idaho study has indicated that at least 2820 tons of sediment per year would be removed from the waste water as a part of the realization of this present permit application

4,5,3,2.
4,5,3,2,1.
a. It is estimated that the proposed project 's flow of stream diversion rate will range from 4.0 to 7.0 cfs averaged over the year depending on weather and irrigation conditions. The diverted water will pass through a sediment pond, a holding pond, several hundred feet of penstock and a generator. All diverted water will then be returned for use by the final downstream user. All diversion occurs on the applicants wholly owned property, and down stream users will not be impacted except to be receiving a higher water quality.

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b. Weir measurement made over a two year period indicated an average of 6.7 cfs in 1991 and 4.4 cfs in 1992 with the range being from 1.1 cfs during Winter non irrigation months and as high as 18-20 cfs during some peak periods of summer irrigation run-off. Hence, the application has been filed for 20 cfs.
c. None of the water will be consumptively used except that which evaporates from the estimated 1.2 surface area acres of retained water.

4,5,3,2,2.
a. The flow rates available from the source are listed for the 1991 and 1992 time period in ***Exhibit B***. These were taken during drought years. The measuremenmt weir was installed and calibrated in Fall 1990 by JUB Engineers. Informal unrecorded readings taken in earlier non-drought years were substantially higher than those shown.
b. Precipitation run-off, two springs within the project boundaries, and irrigation returns comprise the flows available to the project. In that almost the entire flow provided during the April to October period is irrigation return, the water quality is generally poor due to heavy suspended sediment concentration of top soil and fertilizer.
c. Numerous seeps exist downstream of the proposed diversion embankment. These will continue to flow into the existing stream bed and will provide ample (about .5 cfs) water to support the small amount of vegetation in the diverted part of the natural stream. The original diversion point proposed for the First Stage Consultation FERC procedure would have also diverted these seeps, but upon recommendation from various agencies the diversion point has been changed upstream to allow these seeps to continue to flow in the original stream bed for this purpose of supporting vegetation.

4,5,3,3.
4,5,3,3,1.
a. All project facilities lie within the deeded property owned by the applicant. A recent Lawyers Title Insurance Company report of such ownership is provided in ***Exhibit C***.
b. This is an application for hydropower. Information to comply with Idaho Code 42-205 and 42-206 has been previously submitted and resides in this applicant's Department of Water Resources file, as found during my telcom with Mary Baldwin on 9/24/93 i.e., certification of residency and comment letters from other agencies.

4,5,3,3,2.
a. The department has been provided copies of other applications and has been kept appraised of that status. Such information also resides in the applicants file with the department, i.e. FERC Preliminary Permit on Project No. 11060-000-ID issued June 18, 1991. This project is in the consultation stage with an Application for License being prepared for submission in late 1993.

4,5,3,4.
4,5,3,4,1.
a. The most current annual Financial Statement for applicant J.M. Miller Enterprises, Inc. and Idaho "S" Corporation is enclosed as ***Exhibit D,*** which has been submitted in fulfillment of the requirements for the U.S. Internal Revenue Corporate Income Tax Reporting Requirement and certified by John W. McCrea, CPA.
b. Additional information as to the solvency of the applicant can be obtained from Mr. Scott Atkins, of Farm Credit Services of Twin Falls. A copy of the J.M. Miller Enterprises company's balance sheet as completed by Farm Credit and certified by me is included as ***Exhibit E***.

NOV 29 1993

c. The applicant may be able to independently complete the proposed project without assistance, or has sufficient collateral and credit rating to finance a part of the project if necessary.

4,5,3,4,2.
a. The plans and specification for the project have previously been submitted to the department in the form of the FERC Preliminary Permit for Project No. 10060-000-ID. These have been provided to the Department of Water Resources through JUB Engineering, Twin Falls office, Mr. Bill Block, project director.
b. The current estimated cost of the project is $390,000.

4,5,3,5.
4,5,3,5,1.
a. Comments relative to the proposed project have been sought in conjunction with both first and second stage consultations. A listing of those so notified for the on-site and public meeting held November 2, 1992 is provided as ***Exhibit F***.

4,5,3,6.
a. This project is non-consumptive and will not reduce the flow of the Snake River.
b. This project does not involve irrigation uses.

4,5,3,6,1.
a. Project design and estimates of cost have previously been submitted to the department in the form of the FERC Preliminary Permit for Project No. 10060-000-ID. These have been provided to the department through JUB Engineering, Mr. Bill Block, as parts of first and second stage consultation packages. The current estimated cost of the project is $390,000.

4,5,3,6,2.
a. This project does not involve irrigation uses.

4,5,3,6,3.
a. Estimated labor requirements for construction are: mechanical-electrical engineer: 3 man-months; concrete workers:1 man month; welders: 2 man months; electrician: 1 man month; Idaho Power utility workers: 1 man month; machinists: 2 man months; heavy equipment operators: 1 man month.
b. Estimated labor during operations will be : mechanical/electrical/maintenance engineer 2 man months per year

4,5,3,6,4.
a. not applicable; project is for less than 25 cfs

4,5,3,6,5.
a. Water diversion and use will be accomplished through the potential and kinetic energy inherent in its flow. No electrical, chemical or fuel energy will be required.

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4,5,3,6,6.

a. The proposed project 's diversion rate is expected to average over the year about 4.0-7.0 cfs. All diverted water will be returned for use by the final downstream user except for minor evaporative losses.

b. The diverted water will pass through a sediment pond, a holding pond, several hundred feet of penstock and a generator. The sediment pond and small retention pond totaling about 1.2 surface acres in area will be added as part of the proposed project and will, thus, be an improvement on the the current water quality by settling out 70-80% of all solids. All of these solids are waste water from other farmer's irrigation run-off and represent none from my own property. This being a last control point before these wastes go into the Snake River, it has been identified by recent State of Idaho studies as a critical point for water quality improvement. Studies done on my behalf by JUB Engineering of Twin Falls and based on sediment data collected in the State of Idaho study has indicated that at least 2820 tons of sediment per year would be removed from the waste water as a part of the realization of this project.

4,5,3,6,7.

a. This project does not involve irrigation uses.

I certify that the above information completes to the best of my present true knowledge the requests for information contained in Idaho Code Section 4,5,3. If there appears to be additional information needed, please so notify me.

Respectfully Submitted,

James M. Miller, P.E.
President
J.M. Miller Enterprises, Inc.

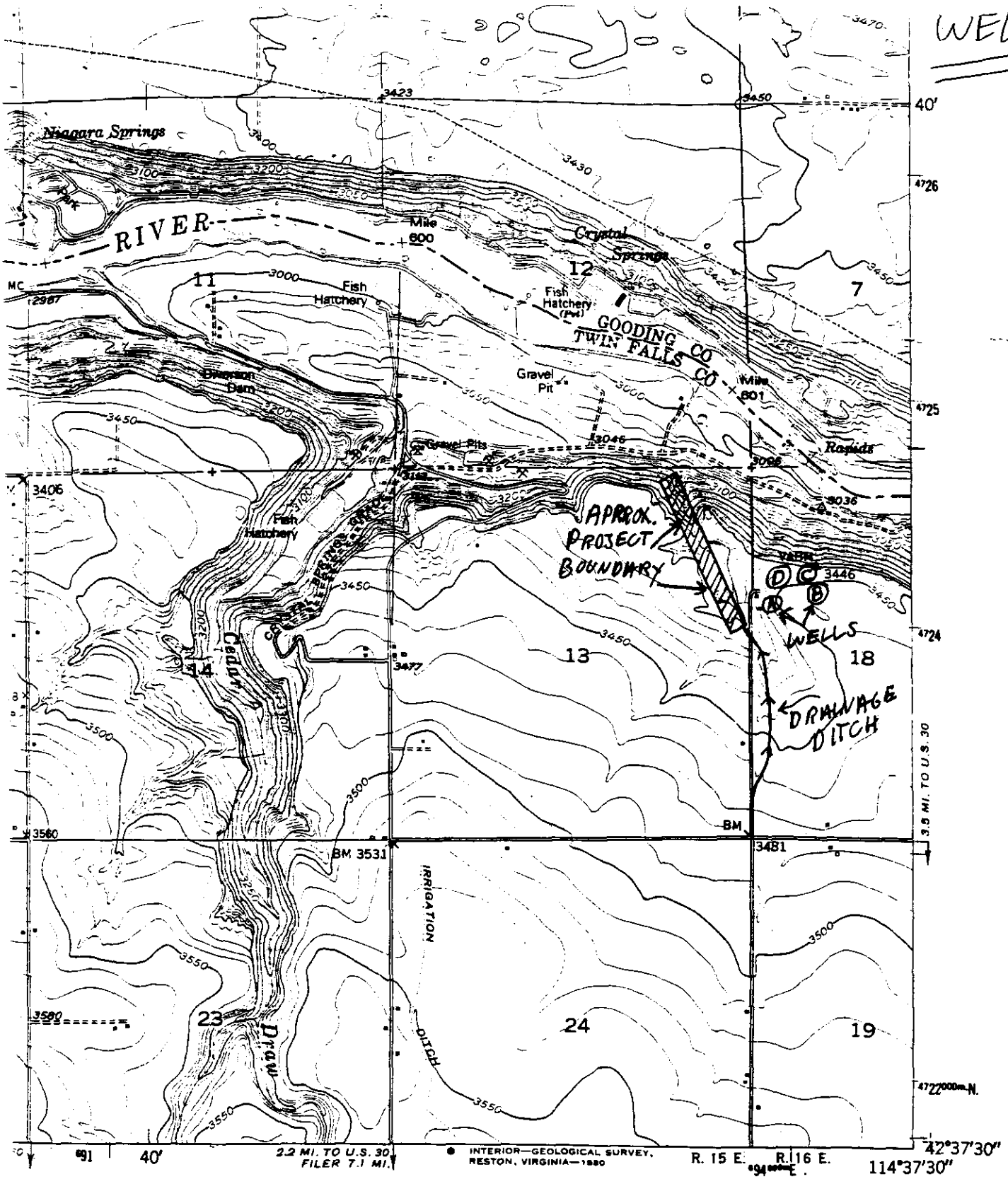
Exhibits:
Exhibit A. Location of Wells Within 1/2 Mile
Exhibit B. Weir Measured Flow Rates 1991, 1992
Exhibit C. Title Insurance: J.M. Miller Enterprises, Inc. Ownership of T9S R15E Section 13
Exhibit D. Financial Statement Balance Sheet from 1992 IRS Report
Exhibit E. Farm Credit Services Balance Sheet Analysis
Exhibit F. List of Persons/Organizations Solicited and Sample Notification Letter

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App#47-08271

Exhibit A.
Location of Wells Within 1/2 Mile

NOV 2 9 1993



1 MILE

7000 FEET

KILOMETER

ROAD CLASSIFICATION

Primary highway, hard surface

Secondary highway, hard surface

Light-duty road, hard or improved surface

Unimproved road

Interstate Route U. S. Route State Route

IDAHO

QUADRANGLE LOCATION

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1980

NIAGARA SPRINGS, IDAHO

NW/4 JEROME 15' QUADRANGLE

N4237.5—W11437.5/7.5

1979

(FILER) 3069 II SE

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VIRGINIA 22092

EQUEST

J. M. Miller Enterprises, Inc.
App#47-08271

Exhibit B.
Weir Measured Flow Rates 1991, 1992

NOV 2 9 1993

1991

Sahko Hydroelectric Project 1991 Flow Readings

Week of		Gage Rdg today	2nd Rdg	Average Weekly Rdg	Converte to cfs	Month Avg cfs
January	2	2		2.00	**1.36**	
	8	2		2.00	**1.36**	
	15	2.2		2.20	**1.36**	
	22	2		2.00	**1.36**	
	29	2		2.00	**1.36**	
				Avg		**1.36**
February	5	2		2.00	**1.36**	
	12	2		2.00	**1.36**	
	19	2		2.00	**1.36**	
	26	2		2.00	**1.36**	
						1.36
March	5	1.75		1.75	**1.11**	
	12	1.75		1.75	**1.11**	
	19	1.75		1.75	**1.11**	
	26	1.75		1.75	**1.11**	
						1.11
April	2	1.75		1.75	**1.11**	
	9	1.75		1.75	**1.11**	
	16	2.75		2.75	**2.19**	
	23	6.5		6.50	**7.97**	
	30	7.5		7.50	**9.87**	
						4.45
May	7	7.5	8	7.75	**10.37**	
	14	7	7	7.00	**8.9**	
	21	7	7	7.00	**8.9**	
	28	8	9	8.50	**11.91**	
						10.02
June	4	9	9	9.00	**12.98**	
	11	10	10	10.00	**15.2**	
	18	10.5	10.5	10.50	**16.35**	
	25	10	10	10.00	**15.2**	
						14.9325

NOV 2 9 1993

Sahko Hydroelectric Project 1991 Flow Rea...gs

July	2	10	11	10.50	**16.35**	
	9	11	11	11.00	**17.54**	
	16	10	10	10.00	**15.2**	
	23	10	10	10.00	**15.2**	
	30	9	8	8.50	**11.91**	
						15.24
August	6	7.5	7	7.25	**9.38**	
	13	7	7	7.00	**8.9**	
	20	7	7	7.00	**8.9**	
	27	7	7	7.00	**8.9**	
						9.02
Septembe	3	7	7	7.00	**8.9**	
	10	7	7	7.00	**8.9**	
	17	7	7	7.00	**8.9**	
	24	7	7	7.00	**8.9**	
						8.9
October	1	7	7	7.00	**8.9**	
	8	7	7	7.00	**8.9**	
	15	7	7	7.00	**8.9**	
	22	7	5	6.00	**7.06**	
	29	4	3.5	3.75	**3.49**	
						7.45
Novembe	5	3.5		3.50	**3.15**	
	11	3.5	3.5	3.50	**3.15**	
	18	3.5	3.5	3.50	**3.15**	
	25	3.5	3.5	3.50	**3.15**	
						3.15
Decembe	2	3	3	3.00	**2.5**	
	9	2.5	2.5	2.50	**1.9**	
	16	2	2	2.00	**1.36**	
	24	not available yet				
	31	not available yet				
					Decembe	**1.92**
ANNUAL WEEKLY AVERAGE				5.37	**6.71**	

NOV 2 9 1993

Sahko Hydroelectric Project 1992 Flow Readings

1992

Week of		1st gage Rdg	2nd Rdg	Average Weekly Rdg	Convert to cfs	Month Avg cfs
December	29	2.25		2.25	1.62	
January	5	2.25	2.25	2.25	1.62	
	12	2.25	2.25	2.25	1.62	
	19	2.25	2.50	2.38	1.76	
	26	2.50	2.50	2.50	1.90	
		Month	Average	2.33	1.66	2.33
February	2	2.50	2.50	2.50	1.90	
	9	2.50	2.00	2.25	1.62	
	16	2.00	2.00	2.00	1.36	
	23	2.00	2.00	2.00	1.36	
		Month	Average	2.19	1.56	2.19
March	1	2.00	2.00	2.00	1.36	
	8	2.00	2.00	2.00	1.36	
	15	2.00	1.75	1.88	1.23	
	22	1.75	1.75	1.75	1.11	
	29	1.75	1.75	1.75	1.11	
		Month	Average	1.88	1.27	1.88
April	5	1.75	1.75	1.75	1.11	
	12	6.50	6.50	6.50	7.97	
	19	6.50	6.50	6.50	7.97	
	26	6.00	6.00	6.00	7.06	
		Month	Average	5.19	6.03	5.19
May	3	5.50	5.50	5.50	6.20	
	10	6.50	6.00	6.25	7.51	
	17	6.00	6.00	6.00	7.06	
	24	6.00	6.00	6.00	7.06	
	31	6.00	6.00	6.00	7.06	
		Month	Average	5.95	6.96	5.95
June	7	5.50	5.50	5.50	6.20	
	14	6.00	6.00	6.00	7.06	
	21	6.75	7.00	6.88	8.66	
	28					
		Month	Average	6.13	7.31	6.13

NOV 2 9 1993

Sanko Hydroelectric Project 1992 Flow Readings

June	28	6.50	6.50	6.50	**7.97**	
July	5	5.50	5.50	5.50	**6.20**	
	12	5.50	5.00	5.25	**5.78**	
	19	5.75	5.75	5.75	**6.63**	
	26	6.00	6.00	6.00	**7.06**	
		Month	**Averag**	**5.80**	**6.65**	**5.8**
August	2	6.00	6.00	6.00	**7.06**	
	9	5.75	3.50	4.63	**4.78**	
	16	6.00	6.00	6.00	**7.06**	
	23	6.00	6.00	6.00	**7.06**	
		Month	**Averag**	**5.66**	**5.90**	**5.66**
August	30	6.00	6.00	6.00	**7.06**	
September	6	6.00	6.00	6.00	**7.06**	
	13	5.50	6.00	5.75	**6.63**	
	20	6.00	6.00	6.00	**7.06**	
	27	6.00	6.00	6.00	**7.06**	
		Month	**Averag**	**5.95**	**6.95**	**5.95**
October	4	3.00		3.00	**2.50**	
	11	6.00	5.00	5.50	**6.20**	
	18	5.50		5.50	**6.20**	
	25	6.00	5.00	5.50	**6.20**	
		Month	**Averag**	**4.88**	**5.28**	**4.88**
November	1	2.50	2.50	2.50	**1.90**	
	8	2.50		2.50	**1.90**	
	15	2.00	2.00	2.00	**1.36**	
	22	2.00	2.00	2.00	**1.36**	
	29	2.00	2.00	2.00	**1.36**	
		Month	**Averag**	**2.20**	**1.63**	**2.2**
December	6	2.00	2.00	2.00	**1.36**	
	13	2.00	2.00	2.00	**1.36**	
	20	2.00	2.00	2.00	**1.36**	
	27	2.00	2.00	2.00	**1.36**	
		Month	**Averag**	**2.00**	**1.36**	**2**
ANNUAL WEEKLY AVERAGE				4.17	4.40	4.38

NOV 2 9 1993

J. M. Miller Enterprises, Inc.
App#47-08271

Exhibit C.
Title Insurance: J.M. Miller Enterprises, Inc.
Ownership of T9S R15E Section 13

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LAWYERS TITLE INSURANCE CORPORATION

COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

1. **EFFECTIVE DATE:** July 9, 1993 **CASE NO.** 33678fc

2. **POLICY OR POLICIES TO BE ISSUED**
   (a) ALTA Owner's Policy - (4-6-90)
   Standard Coverage Owners Policy
   Form No. 113 in the amount of $

   Proposed Insured:

   (b) ALTA Loan Policy - (4-6-90)
   Standard Coverage Lenders Policy
   Form No. 112 in the amount of $10,000.00
   Endorsements:

   Proposed Insured:
   NORTHWEST FARM CREDIT SERVICES, ACA

3. Title to the **FEE SIMPLE** estate or interest in the land described or referred to in this Commitment is at the effective date hereof vested in:

PARCEL NO. 1: J.M. MILLER ENTERPRISES, INC., an Idaho corporation
PARCEL NO. 2: JAMES M. MILLER, a single man

4. The land referred to in this Commitment is described as follows:

SEE ATTACHED LEGAL DESCRIPTION

RECORDED

NOV 2 9 1993

CASE NO. 33678

LEGAL DESCRIPTION

PARCEL NO. 1
Township 9 South, Range 15 East, Boise Meridian, Twin Falls County, Idaho
Section 13: N1/2
EXCEPT
That part of the S½NE¼ thereof, described as:
BEGINNING at the Southeast corner of S½NE¼ of said Section 13, running;
THENCE in a Northwesterly direction 122 rods more or less to a point 56.6 feet West of the Northwest corner of SE¼NE¼ of said Section 13;
THENCE East 56.6 feet to said corner;
THENCE in a Southeasterly direction at all points parallel to the first line herein described and 40 feet distant from said line to a point on the East line of said Section 13 which is 56.6 feet North of the POINT OF BEGINNING;
THENCE South to the POINT OF BEGINNING.

AND EXCEPT
A parcel of land in the Northwest Quarter of said Section 13, described as follows:
COMMENCING at the Southwest corner of said Section 13 bears due South;
THENCE running due North 1248.50 feet;
THENCE North 18°23'33" East 213.9 feet;
THENCE North 35°57'33" East 179.6 feet;
THENCE North 56°41'54" East 725.4 feet;
THENCE South 26°23'24" East 38.5 feet, more or less to a point on the Southerly boundary of a county road, said point being the TRUE POINT OF BEGINNING;
THENCE South 55°49'14" East 668.2 feet;
THENCE South 84°11'21" East 191.7 feet;
THENCE North 8°00'51" East 168.0 feet;
THENCE North 4°43'11" East 157.1 feet, more or less, to a point on the rim of the Snake River Canyon;
THENCE Northwesterly along said Snake River Canyon and the Southerly road right of way boundary in a Northwesterly direction 1001 feet, more or less, to the TRUE POINT OF BEGINNING.

AND ALSO EXCEPT
That part of the NW¼ described as follows:
COMMENCING at the Northwest corner of Section 13, said point lying North 89°50'00" West, 2604.03 feet from the North quarter corner of Section 13;
THENCE South 89°50'00" East 438.56 feet, to the REAL POINT OF BEGINNING;
THENCE South 89°50'00" East 1993.12 feet;
THENCE South 14°34'53" West 221.74 feet;
THENCE North 88°18'33" West 133.01 feet;
THENCE South 79°20'17" West 260.92 feet;
THENCE South 83°34'47" West 105.91 feet;
THENCE South 78°42'40" West 165.35 feet;
THENCE South 83°14'49" West 193.47 feet;
THENCE North 75°35'08" West 650.46 feet;
THENCE North 72°44'20" West 257.23 feet;
THENCE North 66°17'17" West 232.39 feet to the POINT OF BEGINNING.

CASE NO. 33678

PARCEL NO. 2
Township 9 South, Range 15 East, Boise Meridian, Twin Falls County, Idaho
Section 13: That part of the S½NE¼ thereof, described as:
BEGINNING at the Southeast corner of said S¼NE¼ of said Section 13, running;
THENCE in a Northwesterly direction 122 rods more or less, to a point 56.6 feet West of the Northwest corner of SE¼NE¼ of said Section 13;
THENCE East 56.6 feet to said corner;
THENCE in a Southeasterly direction at all points parallel to the first line herein described and 40 feet distant from said line to a point on the East line of said Section 13 which is 56.6 feet North of the POINT OF BEGINNING;
THENCE South to the POINT OF BEGINNING.

SUBJECT TO: Twin Falls County Highway Right of Way

J. M. Miller Enterprises, Inc.
App#47-08271

Exhibit D.
Financial Statement Balance Sheet from 1992 IRS Report

NOV 2 9 1993

Schedule L Balance Sheets

		Beginning of tax year (a)	Beginning of tax year (b)	End of tax year (c)	End of tax year (d)
	Assets				
1	Cash		2099		637
2a	Trade notes and accounts receivable				
b	Less allowance for bad debts				
3	Inventories				
4	U.S. Government obligations				
5	Tax-exempt securities		56854		9966
6	Other current assets *(attach schedule)*				
7	Loans to shareholders				
8	Mortgage and real estate loans		134440		134464
9	Other investments *(attach schedule)*			763808	
10a	Buildings and other depreciable assets	620033		336032	427776
b	Less accumulated depreciation	257670	362363		
11a	Depletable assets				
b	Less accumulated depletion				
12	Land (net of any amortization)		186099		272340
13a	Intangible assets (amortizable only)	771		771	
b	Less accumulated amortization	167	604	321	450
14	Other assets *(attach schedule)*				
15	Total assets		742459		845633
	Liabilities and Shareholders' Equity				
16	Accounts payable				118500
17	Mortgages, notes, bonds payable in less than 1 year				
18	Other current liabilities *(attach schedule)*		198558		225558
19	Loans from shareholders		510300		524481
20	Mortgages, notes, bonds payable in 1 year or more				
21	Other liabilities *(attach schedule)*		120		120
22	Capital stock		136000		136000
23	Paid-in or capital surplus		(102519)		(159026)
24	Retained earnings		( )		( )
25	Less cost of treasury stock				
26	Total liabilities and shareholders' equity		742459		845633

Schedule M-1 Reconciliation of Income (Loss) per Books With Income (Loss) per Return (You are not required to complete this schedule if the total assets on line 15, column (d), of Schedule L are less than $25,000.)

1	Net income (loss) per books	(56507)	5 Income recorded on books this year not included on Schedule K, lines 1 through 6 (itemize):	
2	Income included on Schedule K, lines 1 through 6, not recorded on books this year (itemize): Interest	23	a Tax-exempt interest $	
3	Expenses recorded on books this year not included on Schedule K, lines 1 through 11a, 15e, and 16a (itemize):		6 Deductions included on Schedule K, lines 1 through 11a, 15e, and 16a, not charged against book income this year (itemize):	
a	Depreciation $		a Depreciation $	
b	Travel and entertainment $ 154	154		
			7 Add lines 5 and 6	
4	Add lines 1 through 3	(56330)	8 Income (loss) (Schedule K, line 23). Line 4 less line 7	(56330)

Schedule M-2 Analysis of Accumulated Adjustments Account, Other Adjustments Account, and Shareholders' Undistributed Taxable Income Previously Taxed (See instructions.)

		(a) Accumulated adjustments account	(b) Other adjustments account	(c) Shareholders' undistributed taxable income previously taxed
1	Balance at beginning of tax year	(102519)		
2	Ordinary income from page 1, line 21	(93037)		
3	Other additions	36684		
4	Loss from page 1, line 21	( )		
5	Other reductions	(154)	( )	
6	Combine lines 1 through 5	(159026)		
7	Distributions other than dividend distributions			
8	Balance at end of tax year. Subtract line 7 from line 6	(159026)		

Please Sign Here

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than taxpayer) is based on all information of which preparer has any knowledge.

David M. Miller — 8-15-93 — President

Signature of officer — Date — Title

Paid Preparer's Use Only

Preparer's signature — Date 8-12-93 — Check if self-employed ☐ — Preparer's social security number 150 20 9184

Firm's name (or yours if self-employed) and address: JOHN W MCCREA CPA, 777 E. EISENHOWER SUITE 135 ANN ARBOR MI ZIP code 48108 — E.I. No. 38 2019466

J. M. Miller Enterprises, Inc.
App#47-08271

Exhibit E.
Farm Credit Services
Balance Sheet Analysis
1993

NOV 29 1993

V03-01B

FARM CREDIT SERVICES
BALANCE SHEET

Name J.M. Miller Enterprises, Inc. | Short Name Enter | As of (date) 2-5-93
To Twin Falls | Member or Loan No. 31413

ASSETS	Applicants Use	Current Year
Cash on hand or in checking	16,653	
Savings accounts and time certificates		
Marketable securities (stocks and bonds)		
Accounts Receivable		
Current portion of notes and cont. rec.		
Products on hand (Sch. A)	23,500	
Growing Crops (Sch. B)	1,000	
Marketable Livestock (Sch. C)	25,000	
No. ____ Kind ____ $/HD. ____	0	
No. ____ Kind ____ $/HD. ____	0	
No. ____ Kind ____ $/HD. ____	0	
No. ____ Kind ____ $/HD. ____	0	
Prepaid expenses		
Supplies		
Miscellaneous (Sch. F)	0	
Less DP purch of Blass Property		
TOTAL CURRENT ASSETS $	66,153	
Machinery & equipment (Sch. E)	0	
Portable irrigation equipment	50,000	
Personal and recreational vehicles		
Production livestock (Sch. D)	235,000	
No. ____ Kind ____ $/HD. ____	0	
No. ____ Kind ____ $/HD. ____	0	
No. ____ Kind ____ $/HD. ____	0	
No. ____ Kind ____ $/HD. ____	0	
Notes receivable (less current portion)		
Retirement accounts		
Cash value of life insurance		
Securities, not readily marketable		
Household and personal goods		
FCS stock	5,440	
Miscellaneous (Sch. F)	0	
Other		
TOTAL INTERMEDIATE ASSETS $	290,440	
Real Estate: (Sch. G)	1,375,000	
Acres Location Acquired		
1.		
2.		
3.		
4.		
5.		
Real estate sale contracts receivable:		
Purchaser Terms		
Notes and contr. rec. (less curr. port.)		
Miscellaneous (Sch. F)	0	
Other		
TOTAL FIXED ASSETS $	1,375,000	
TOTAL ASSETS $	1,731,593	

LIABILITIES	Applicants Use	Current Year
Operating line:		
Creditor / Total Comm / Due / Int		
Accounts payable:		
Creditor / Total Comm / Due / Int		
CCC loans		
Accrued rent/taxes		
Accrued interest		
Principal portion (due within 12 months)		
Creditor / Sec./Purp. / Due		
NBD, MI / Comm. Office / monthly		
1st Fed / House, Filer / monthly		
Rokan / 125 ac Farm, Filer / Annual		
FCB # 341 / 300 ac Ranch, Filer / 4-1-93		
ACA # 441 / New R/E loan (63 ac) / 6-1-94		
Other		
TOTAL CURRENT LIABILITIES $	0	
Unmatured Debts (1 to 10 yr. terms):		
Creditor / Sec./Purp. / Years Remaining / Annual Payment		
Life insurance policy loans		
Capital leases		
Other		
C.C.C. Liens on Structures		
TOTAL INTERMEDIATE LIABILITIES $	0	
Liens on Real Estate: (Sch. G)	485,000	
Creditor / Int. / Years Remaining / Annual Payment		
1.		
2.		
3.		
4.		
5.		
Other Creditors / Int. / Years Remaining / Annual Payment		
TOTAL LONG-TERM LIABILITIES $	485,000	
TOTAL LIABILITIES $	485,000	
NET WORTH $	1,246,593	

I (we) certify that the information provided in the above financial statement is complete and accurate to the best of my (our) knowledge. I (we) understand that a false statement or report of facts material to the approval of a loan, knowingly made, may subject the maker to criminal liability under Federal criminal statutes as well as civil liability.

Signature James M. Miller | Title President | Date 2-5-93

Secretary | 2-5-93

Balance sheet recertified, no significant changes except changes pertaining to FCS loan.

James M. Miller

J.M. Miller Enterprises, Inc.
President

8/2/93
Date

ACA 1005 (4/91)

June 7, 1993 3:31 PM

NOV 29 1993

Schedule A - Products on Hand (S = Sale, U = Use)

Product	Quantity	Price	(S or U)	Applicant Use	Current Year
Corn	3000	4.50	U	13,500	
Hay	125	80.00	U	10,000	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
			TOTAL	23,500	

Schedule B - Growing Crops
(C = Cash invest. M = Mature)

Crop	Acres	Price	(C or M)	Applicant Use	Current Year
Barley	1	1,000.00	C	1,000	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
			TOTAL	1,000	

Schedule C - Marketable Livestock

Number	Kind	Price	Applicant Use	Current Year
10	Bull Calves	2,500.00	25,000	
	Black Angus		0	
			0	
			0	
			0	
			0	
			0	
			0	
			0	
			0	
		TOTAL	25,000	

Schedule D - Production Livestock
(Breeding, Dairy, etc.)

Number	Kind	Price	Applicant Use	Current Year
70	Cows	1,500.00	105,000	
60	Heifers	2,000.00	120,000	
2	Bulls	5,000.00	10,000	
			0	
			0	
			0	
			0	
	Lvst are Reg. Black Angus		0	
			0	
			0	
		TOTAL	235,000	

Schedule G - Real Estate
Real Estate:

	Acres	Location	Acquired	Applicant Use	Current Year
1.	1	2392 Fuller, MI	Office	275,000	
2.	1	2380 Fuller, MI	Duplex	235,000	
3.	1	2400 Fuller, MI	Lot	125,000	
4.	1	4472N 2000E, ID	House	100,000	
5.	125	Cedar Draw Farm, ID		125,000	
6.	300	Ranch, Filer, ID		300,000	
7.	40	South Rim Farm, Filer, ID		125,000	
8.	62.60	Farmland, Filer, ID		90,000	
9.		(To Be Purchased)			
10.					
11.					
12.					
			TOTAL	1,375,000	

Liens on Real Estate

	Creditor	Int	Yrs. Rmg.	Annual Payment	Applicant Use	Current Year
1.	NBD Mortg.	6.71	18	11,681	130,000	
2.	Clear					
3.	Clear					
4.	1st Fed Svg	8.00	27	4,975	60,000	
5.	Rokan			7,639	75,000	
6.	FCS #341	7.15	17	12,497	130,000	
7.	Clear				90,000	
8.	Bob Blass					
9.	ACA #441	6.80	19	5,390		
10.						
11.						
12.						
				TOTAL	485,000	

Schedule-E Machinery and Equipment

IMPORTANT: Equipment bought on conditional sales contract or under lien of any kind must be listed and valued separately giving the lienholder's name and amount of lien.

Qty.	Year	Make	Size	Model	Item	Serial No.	Cond.	Applicant's Use	Current Year
							TOTAL	0	

Schedule F - Miscellaneous

Description	Applicant Use	Current Year

NOV 29 1993

June 7, 1993 3:31 PM

ACA 1005 (4/91)

J. M. Miller Enterprises, Inc.
App#47-08271

Exhibit F.
List of Persons/Organizations Solicited
and
Sample Notification Letter

NOV 29 1993

FIRST STAGE CONSULTATION
NOTICE OF ON-SITE MEETING/PUBLIC MEETING

Mr. Einar Wold, Division Chief
National Marine Fisheries Service
Env. & Tech. Services Division
Room 620
Portland, OR 97232

Chief
Interagency Archeological Services
National Park Service
600 Harrison Street
Suite 600
San Francisco, CA 94107

Mr. G. Dean Hilliard
Regulatory Branch
Army Corps of Engineers
Walla Walla District
Walla Walla, WA 99362-9265

Mr. Charles Lobdell
Field Supervisor
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road, Rm. 576
Boise, Idaho 83705

Mr. Will Reid
Fisheries Program Coordinator
Idaho Dept. of Fish & Game
600 S. Walnut
Box 25
Boise, Idaho 83707

Mr. Carl Nellis
Supervisor
Region 4
Idaho Dept. of Fish & Game
868 E. Main St.
Jerome, Idaho 83338

Mr. Tom Green
Dpty. SHPO
Idaho State Historical Society
210 Main St.
Boise, ID 83702

Mr. Loren Holmes, District Manager
Idaho Dept. of Water Resources
220 Shoshone St. East
Twin Falls, Idaho 83301

Mr. Tim Litke, Regional Administrator
Idaho Dept. of Health and Welfare
Division of Environmental Quality
P. O. Box 1626
Twin Falls, Idaho 83303-1626

Ms. Yvonne Ferreli, Director
Idaho Dept. of Parks and Recreation
Statehouse Mail
Boise, ID 83720

Mr. Lee Taylor
Planning and Zoning Administrator
County of Twin Falls
246 3rd Ave. East
Twin Falls, Idaho 83301

Librarian
Filer City Library
219 S. Main St.
Filer, Idaho 83328

Mr. Warren McFall
Idaho Operations Office
Environmental Protection Office
420 W. Washington St.
Boise, Idaho 83702

NOV 29 1993

J·U·B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

October 15, 1992

Mr. Will Reid
Fisheries Program Coordinator
Idaho Dept. of Fish & Game
600 S. Walnut
Box 25
Boise, ID 83707

SAMPLE

RE: Preliminary Permit #11060-000-Idaho
Proposed Sahko Hydroelectric Project
Twin Falls County, Idaho
J.M. Miller Enterprises, Inc., Applicant
NOTICE OF ON-SITE MEETING; NOTICE OF PUBLIC MEETING

Dear Mr. Reid:

On behalf of the referenced applicant, our client, please be advised that an on-site meeting with affected or interested agencies is planned to convene at 1:00 p.m., on November 2, 1992. At that time, we will be pleased to show you/your delegate the proposed project's layout, and discuss matters relevant to its development, to the extent they can be addressed.

This procedure is in further accordance with the FERC requirements for first-stage consultation.

The project site can be reached via:

(Near the north edge of City of Twin Falls, south side of the Snake River) From the intersection of Blue Lakes Blvd. North and Pole Line Road, proceed nine (9) miles west on Pole Line Rd. to County Road 2100 East;

Turn right (north) on 2100 East, and proceed 3.75 miles to the road's terminus near the Snake River canyon's south rim.

We will convene at the road terminus. Although an existing gravel road descends the canyon, parts of the project are only accessible by foot, and some slopes are steep.

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Engineers Surveyors Planners

We also plan to hold a joint meeting (public and agencies) at 7:00 p.m. that evening in Classroom #1 at Filer High School (on Rte. 30 in Filer). At that time we will further solicit your comments and those of the public, in accordance with first-stage public involvement procedures.

If you have any questions, please let me know.

Sincerely,

D.W. "Bill" Block, P.E.
Applicant's Agent

NOV 2 9 1993

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

ATTN: Bill Block
JUB Engineers, Inc.
800 Falls Ave., Suite 1
Twin Falls, ID 83301

July 21, 1993

RE: Sahko Hydroelectric Project

Dear Bill,

We have received the Second-Stage Consultation report for the project and have conducted local review. I noted that various design changes have been made since the previous submittal. The following are comments about aspects of the project under IDWR jurisdiction.

Design changes reducing the height and storage capacity of the diversion facility categorize the development below the minimum size of a "dam". The reduced size has lowered the downstream hazard, as determined by Department methods, to minimal levels. The combination of reduced size and low hazard have apparently removed the project from Safety of Dams jurisdiction.

Moving the diversion dam upstream, away from the known seepage and soil slough area, should improve the chance of encountering better foundation conditions, though confirmation of this by site review has not been attempted. If a site visit is planned please contact this office to coordinate time and place.

Two elements of the project, at least, require a separate stream channel alteration permit, namely the sediment retention structure and the tail race return to the stream channel. Terry Blau, Stream Channel Protection Specialist, is the person that you need to coordinate with in this office.

If you have any questions please contact Loren Holmes, Terry Blau, or myself at the above address/phone.

Sincerely,

Douglas Jones, EIT
Engineering Specialist

cc: File 47-08271
D. Hollingshead

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J·U·B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

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Department of Wa
Southern Regi

Book microfilmed here. Book is dated received Aug. 26, 93

April 23, 1993

Mr. Loren Holmes District Manager
Idaho Dept. of Water Resources
220 Shoshone St. East.
Twin Falls, ID 83301

Re: Application for License for Minor Water Power Project
Sahko Hydroelectric Project
Twin Falls County, Idaho
J. M. Miller Enterprises, Inc., Applicant
Second-Stage Consultation

Dear Mr. Holmes:

On behalf of our subject client, we enclose a draft application for your review and request your comments, or further comments, as appropriate.

Please be advised that the project's configuration has changed in several respects and are *summarized* below. Details are further reflected in the draft application.

The most notable change, serving as basis for others, includes the substitution of a single impulse-type (Pelton) turbine replacing the two units previously identified. Because the original configuration would have operated with narrower ranges of efficiency, it was necessary to construct a larger dam, with a reservoir capacity, in order to better regulate power flows. This scenario would have resulted in a water management practice of causing a fluctuating water surface to best match turbine performance. In turn, we recognized that a fluctuating water surface could have significant cause-effect relationship with the permanent establishment of wetland habitat, and further relational effect on waterfowl and other wildlife using such newly established habitat.

With the installation of an impulse-type, multi-nozzle Pelton wheel, it is now *imperative to best water management practice that any retained water body be maintained at a constant headwater elevation*. In effect , the now-proposed water body_in fact, the entire project_would operate as run-of stream.

The location and magnitude of the proposed embankment has also changed. Now that it will no longer be intended to fluctuate water surface elevation, the same head can be maintained by relocating the embankment approximately 350 ft. further upstream. This has resulted in the embankment's water surface depth extending nine ft. from ditch invert instead of the originally proposed 20 ft.; further, the embankment's height has decreased to 13.5 ft. from the originally-

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Engineers Surveyors Planners

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Department of Water Resources
Southern Region Office

proposed 22 ft. In addition, the embankment's free-board has been increased to 4.5 ft. in order to provide for dam safety and absorbing a sudden run-off event from precipitation or irrigation flows. Fianlly, please be advised that a commensurate reduction in the embankment's length has occurred as a result of its downsizing; that is, the axis length will be 110 ft. rather than the 240 ft. initially proposed. Upstream and downstream slopes will remain the same.

The location of the originally proposed concrete retaining wall designed for collecting topsoil washed from irrigated cropland above the project has also been moved further upstream, and has been revised to an earth-fill embankment. The new structure will still contain an overflow spillway; and, its new location will still be capable of adequate collection efficiencies to improve water quality downstream.

In order to accommodate de-watering for sediment removal, two new features have been incorporated to the upstream embankment: A bypass pipe installed through the embankment to de-water the basin to minimal depth; and, a gated, 500 ft. long bypass ditch near the project's upstream boundary in order to prevent flows from entering the basin while it is being cleaned out.

Overall water surface area has changed. Instead of the originally-proposed 1.7 acres, the retained water bodies comprising the forebay (downstream) and the sediment collection basin (upstream) will be 0.6 acres and 0.6 acres, respectively.

Overall volume of the water bodies has changed from 9.5 acre-ft. to 7 acre-ft.

The proposed penstock length has now been increased due to the embankments' relocations. The upper-most section of pipe is now proposed at 700 ft. instead of the previously-identified 350 ft.; that is, overall penstock length has increased from 1,600 ft. to 1,950 ft.. It is also proposed to *bury the entire length* of pipe from the embankment to the powerhouse.

IMPACTS AND MITIGATION

Described below is a *summary* of anticipated impacts due to the revised project configuration. Details are reflected in the draft application.

Given the new configuration, location, and intended water management policy, we believe that project installation will result in a significantly *enhanced and stabilized* area along the shallow perimeter of the forebay, including the two springs in the project's upper reach.

In order to assure that such mitigation efforts are not incorporated to the project as an after-thought, Applicant will make efforts *during construction* to provide for the placement or removal of fill material in order to establish permanent wetlands and riparian zones along the forebay's periphery. If the FERC conditions the license with a requirement for wetlands creation in the forebay area, Applicant will, during the project's design phase, engage a wetlands specialist and provide detailed topography of the affected area in order to define the placement or removal of fill material which would optimize habitat.

NOV 29 1993

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Engineers Surveyors Planners

In order to maintain the proposed enhanced habitat, Applicant will take measures to prevent his cattle from grazing in the affected area. This will be accomplished by means of fencing the perimeter of the forebay. Applicant will continue, however, to provide for livestock watering from the springs, and will take measures to "gravity-pipe" spring water to a trough immediately adjacent to the springs but outside the fenced area. The trough would outfall to approximately the same location as currently inundated by the springs.

In order to further foster the permanent establishment of wetlands along the length of the ditch, Applicant will fence the ditch along its east bank_the west bank is bounded by cropland_from the toe of the forebay's embankment to the location where the ditch transitions to the ravine.

As a result of the embankments' relocations upstream, several natural seeps on either side of the ditch will now contribute to the ditch downstream of the embankment. Given the absence of a fishery, we believe the seeps in this reach, as well as the numerous seeps from the canyon wall providing moisture to the riparian zone in the ravine, will contribute to continuing vegetative growth along the entire bypass reach.

We understand that your agency has ninety days from the date of this letter to provide comments prior to submittal of the application to the FERC. On receipt of your comments we will prepare the application for submittal and address your further comments, as appropriate.

We would also re-iterate our request for your identification of any comprehensive state or regional plans which your agency administers.

If you have any questions, please let me know.

Sincerely,

D. W. "Bill" Block, P.E.
Authorized Agent

DWB/maa

cc: J. M. Miller Enterprises

enc. (4/93 draft application for FERC license)

1993

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000
Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

November 25, 1992

Mr. D. W. "Bill" Block
J-U-B Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, ID 83301

RE: Proposed Sahko Hydroelectric Project

Dear Bill:

The Department is in receipt of the information you sent concerning the proposed Sahko Hydroelectric Project. It has been reviewed, and we feel that the Department will have direct involvement in certain aspects of the project. Therefore the following comments are being made:

1. The difference in the elevation of the streambed and the normal water surface is 20 feet at the dam. The project will, therefore, be under the Department's safety authority.

2. The project is within the Middle Snake River study and planning area. The reach of the Snake River, to which Kastelu Drain is tributary, is currently under interim protection status by the Water Resource Board. The project site is not subject to the interim protection restrictions.

3. The Department of Water Resources has no information concerning vegetation or wildlife in the project area.

4. The alteration activities within the stream channel may be under the regulatory authority of the Department.

5. Water right application no. [illegible] has been filed for this project. Additional information has been requested from the applicant to fulfill the requirements of Water Appropriation Rule 4,5,3., but has not yet been received.

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Another concern that has been expressed by the public is the rapid change in water levels in the stream, caused by operating the plants by surging to optimize the power production. The effect of this practice should be examined if that method of operation is proposed.

Thank you for the opportunity to comment on the proposed project. Please notify us when you schedule any meetings concerning this project.

Sincerely,

Bob Fleenor

Bob Fleenor
Chief, Resource Protection Bureau

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MEMORANDUM

DATE: 05-Oct-1992

FROM: Loren Holmes

TO: Norm Young

SUBJECT: Sahko Hydro project

This project summary was addressed to this office. On review, it appears that the project deserves further review by the department before responding. My comments with respect to each of the items addressed by the consultant are below.

1) The difference in elevation between the stream invert and the normal water surface indicates a 20-foot water depth at the dam. The project will come under the department's dam safety regulation authority.

2) The project is within the Middle Snake River study area. This reach of the river is currently under interim protection pending adoption of a comprehensive state water plan. The project site itself is not subject to the interim protection.

3) This department does not hold any information concerning rare or endangered species or candidate species.

4) This department has regulatory authority over construction of dams and stream channel alteration activities which may be part of the construction of this project. The department may also be a participant in the FERC licensing process.

5) The project is under water right application 47-8271, filed 4/24/91, proposing to divert water for hydropower, fish propagation and stockwater. The application was protested by the Twin Falls Canal Co.. The protest has been resolved by agreement between the Canal Co. and the applicant. The applicant has been advised of the additional requirements of Rule 4,5,3 for the application but has not responded to date. The application is in the region pending receipt of the Rule 4,5,3 information.

Other concerns:

People in this area have expressed concerns about operation of other power plants in the vicinity operating in cycles to optimize use of the water. This type of operation results in surges in streamflow downstream from the plant which could interfere with other diversions or public uses of the stream.

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J·U·B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

47-8271

September 22, 1992

Mr. Loren Holmes, District Manager
Idaho Dept. of Water Resources
220 Shoshone St. East.
Twin Falls, ID 83301

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Department of Water Resources
Southern Region Office

RE: **Proposed Sahko Hydroelectric Project**
Kastelu Drain
Twin Falls County, Idaho
J.M. Miller Enterprises, Inc., Applicant
FIRST-STAGE CONSULTATION

Dear Mr. Holmes:

Per Title 18 CFR, Part 4.38 regulations of the Federal Energy Regulatory Commission (FERC), we enclose herewith on behalf of the above applicant the following materials for your use in connection with an intended application to the FERC for permission to construct and develop the referenced project:

Project Description (Tabular Summary) - The summary is intended to form the basis for an eventual Exhibit A of the application, identifying the project's general design and mode of operation;

Environmental Report - The narrative will form the basis for an eventual Exhibit E; it reflects the intended project configuration, our current knowledge of the area to be affected by the project, expected and/or potential impacts of development, and the applicant's proffer measures, to the extent they are known, to avoid or mitigate said impacts.

Project Location Map - The map identifies the location of the proposed project, existing and proposed features thereof, and a proposed project boundary enclosing lands to which the applicant has proprietary rights for project development. No public lands are involved. The map will form the basis for an eventual Exhibit G.

Please be advised that the applicant intends to seek benefits under Section 210 of PURPA by satisfying the requirements for qualifying hydroelectric small power production facilities ("QF's") pursuant to 18 CFR, Part 292.203.

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In that we have identified your agency as a "relevant" agency in this regulatory procedure before the FERC, we ask that you provide a response to this communication in any event. If you find that your agency will not intend to involve itself further, we would appreciate such indication. If you concur that your agency's involvement is relevant to this proceeding, we request your responses on the following items:

1. In that PURPA benefits are sought, applicant states its belief that the project proposes the construction a new dam or diversion as defined in Part 292.202(p); and, we are directed to request, and do here so request, your agency's view on that belief, if any.

2. We request any information you can provide concerning your role as the administering agency, or as a cooperating agency, of any state, regional, or national water resource development plan(s), and your finding, as appropriate, of whether the proposed project is in conflict with said plan(s).

3. We request any information you can provide, as approriate, concerning the probable existence of any rare, threatened and/or endangered species--or candidate species--of vegetation and wildlife in the general and/or project area.

4. We request you provide a description of your continued role, as appropriate, in any other regulatory proceeding related to the proposed project's construction and operation.

5. We request that you review the enclosed material, and offer your comments on the proposed project, identifying what you believe to be additional study efforts beyond those already undertaken; and further, that your requests for additional studies, if any, be *founded pursuant to the requirements identified in 18 CFR, Section 4.38 (b)(4)(i) - (vi).*

This transmittal constitutes the beginning of first-stage agency consultation, as required in the pre-application procedures. Please be advised that, in no less than thirty days nor greater than sixty days from the date of this letter, the applicant intends to hold a meeting at the site with affected agencies, and intends to hold a meeting with the public and affected agencies, at which time the project will be presented and discussed, and comments taken from agencies and the public.

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If you have any questions, please let me know.

Sincerely,

D.W. "Bill" Block, P.E.
Authorized Agent

cc: J.M. Miller Enterprises, Inc. (w/enc.)

enc.

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EXHIBIT A

DESCRIPTION OF PROJECT AND PROPOSED MODE OF OPERATION

(1) Project Data

(i)	Number of Generating Units	Two
	Auxiliary Units	None
	Capacity of Units	89 kW
		244 kW
	Total Installed Capacity	333 kW
	Provisions for Future Units	None
(ii)	Hydraulic Turbine Type	Centrifugal Pump Hydraulic Turbine
(iii)	Mode of Operation	Run-of-Ditch with capability of water surface variance
(iv)	Estimated average annual energy generation (kWh)	1,178,000 kWh
(v)	Estimated average head	328 ft.
(vi)	Reservoir Surface Area	1.7 acres
	Storage Capacity	9.5 acre-ft.
	Normal Maximum Surface Elevation	3390 ft. msl
	Normal Minimum Surface Elevation	3385 ft. msl

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(vii) Estimated hydraulic capacity of plant (cfs) 15 cfs

(viii) Sizes, Capacities, and Construction Materials

Embankment

Construction	Earth-fill
Elevation (stream invert)	3370 ft. msl
Elevation (crest)	3392 ft. msl
Length (crest)	240 ft.
Width (crest)	14 ft.
Slope (upstream)	3:1
Slope (downstream)	2:1

Intake Structure

Construction	Concrete, reinforced
Elevation (floor)	3382 ft. msl
Dimensions	8.0 ft. (w) x 6.5 ft. (l) x 10 ft (h)

Pipeline/Penstock

Material	Steel
Diameter	24 in.
Length	1,600 ft.

Powerhouse

Construction	Concrete/Masonry-block
Elevation (floor)	3054 ft. msl
Dimensions	15 ft. (w) x 18 ft. (l)

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Tailrace	
Construction	Concrete and rock riprap
Elevation	3051 ft. msl
Dimensions	6 ft.(w) x 3.0 ft.(d) x 30 ft.(l)
Switchyard	
Dimensions	12 ft. x 12 ft.
Primary Transmission	
Voltage	34.5 kV
Length	2,000 ft.

(ix) Estimated Project Cost $380,000 (1992)

(2) Purpose of Project:

Irrigation water supplement; develop renewable-resource energy for sale to the Idaho Power Company in order to help defray electrical costs of proposed powered irrigation system.

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EXHIBIT E

ENVIRONMENTAL REPORT

OVERVIEW

The proposed Sahko hydroelectric project will develop the energy potential of irrigation return flows at the so-called Kastelu drain, located approximately three miles northwest of Filer, in Twin Falls County, Idaho. The property within the project boundary is privately-owned, undeveloped and is currently used for cattle-grazing.

The project reach is generally characterized as a draw which directs precipitation and irrigation return flows to the Snake River canyon's south rim. Flows then fall through a steep ravine, which transitions to a relatively flat area prior to the drain's confluence with the Snake River, approximately 0.5 miles beyond the project boundary.

It is proposed to construct an earth-fill embankment at ditch invert elevation 3370 ft. mean sea level (msl). Crest height will be at 3392 ft. msl, and the embankment's length along the crest axis will be 240 ft. Upstream and downstream slopes are designed at 3:1 (run:rise) and 2:1, respectively.

The embankment will incorporate a concrete intake structure near its center. The intake structure's floor will be at elevation 3382 ft. msl, and ten ft. in height. The box-shaped structure will measure 8.0 ft. wide (along the dam's axis) x 6.5 ft. into the embankment, and will incorporate protective trash racks.

The embankment will also incorporate a concrete overflow-spillway channel which will direct flows to a riprapped surface at the embankment's downstream toe, and into the ditch channel.

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A steel, 24 in. diameter pipe will extend approximately 960 ft. along an existing road. The pipe will then turn at a bend in the road where pipe alignment will represent the shortest run down the slope. From this point, the pipe will extend an additional 640 ft. above-ground, set in saddle supports, to the proposed powerhouse location.

The powerplant will include a masonry-block structure, approximately 15 ft. x 18 ft. to house the turbine-generator sets, controls and appurtenances.

A concrete pad for the transformer will be constructed adjacent to the powerhouse.

A tailrace channel approximately 30 ft. long will be excavated from the powerhouse, then lined with concrete and riprap, and return spent power flows to the irrigation drain.

A new section of overhead three-phase distribution lines will be brought to the site by the Idaho Power Company and will extend approximately 2,000 ft. within the project boundary from the power plant to the interconnect point. Any other improvements to Idaho Power Company's existing lines are outside the project boundary.

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DESCRIPTION OF ENVIRONMENTAL SETTING

VEGETATIVE COVER

The proposed project is located in a semi-arid area which receives ten to twelve inches of precipitation annually. Vegetation types have been mapped, and are identified in the following Figure E-1. Natural vegetation in the upper reach is primarily sagebrush, cheatgrass, wheatgrass, and other semi-arid species. The flat area through which the ditch extends is heavily grazed and is largely void of vegetation other than short-cropped grasses. Although the general area is void of trees, the upper reach contains approximately one dozen russian olive trees and an apple tree.

No wetlands vegetation occurs in the upper reach.

The lower reach of the project (ie, from the first significant fall of water through the ravine) contains thick stands of shrubs and brush, including wild rose, currant, rabbitbrush, sagebrush and a variety of forbs. This area is characterized as the only significant riparian zone within the project boundary, and includes an approximate twenty foot width on either side of the ditch; however, beyond the zone, the vegetative cover abruptly transitions to desert sagebrush/cheatgrass.

The powerhouse site, once dominated by sagebrush, is largely void of vegetation, having been previously cleared by the owner to make way for a vehicle turn-around and picnic spot. The banks of the drain at this location contain various grasses and one apple tree.

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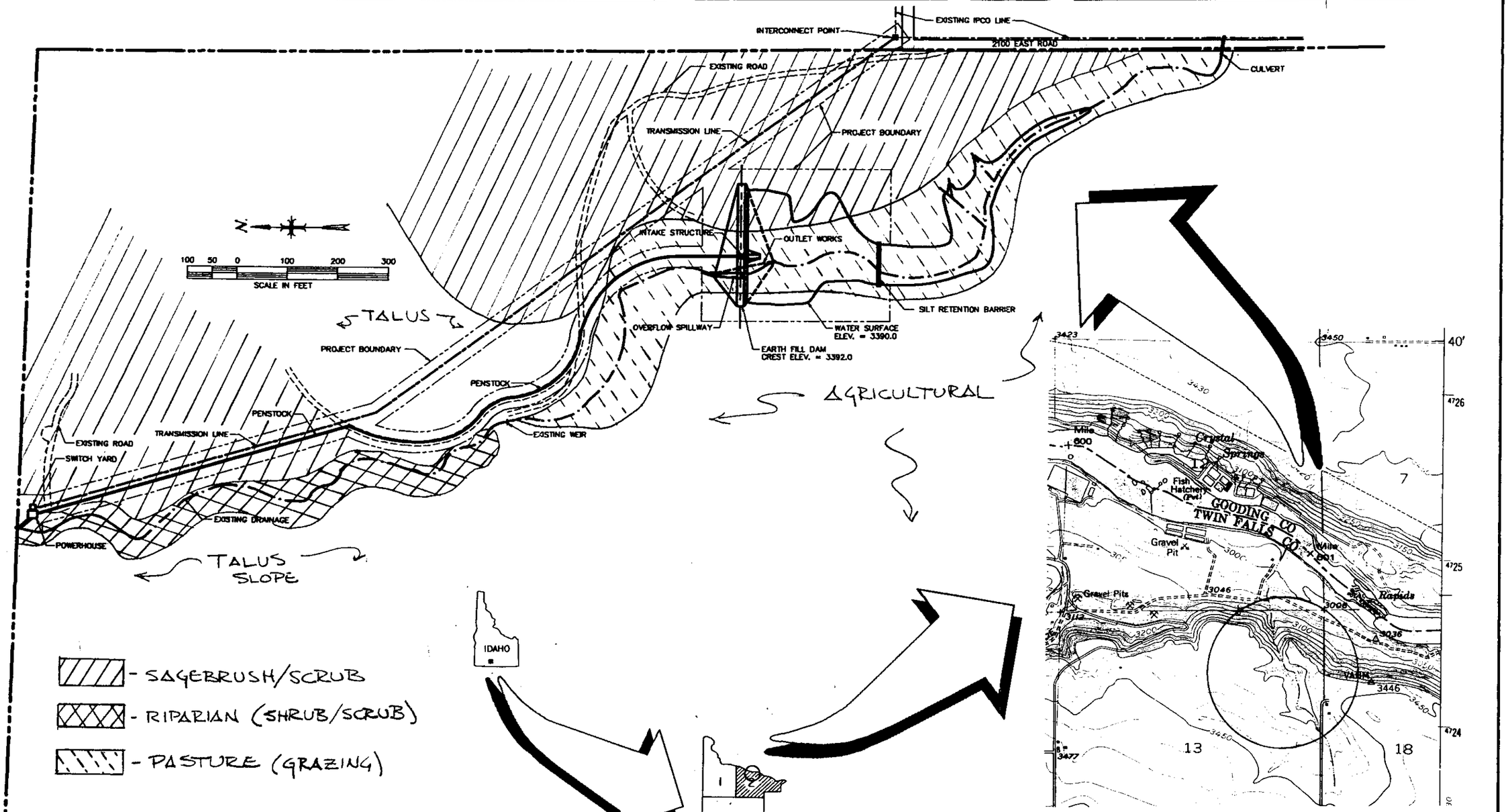


FIGURE E-1

VEGETATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J. M. MILLER ENTERPRISES, INC., APPLICANT

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Rare, Threatened and Endangered Species

Subject to further information provided by agencies, and based upon walk-throughs by the Applicant, there are no rare, threatened and/or endangered species, or candidate species, of vegetation within the project boundary.

FISHERY RESOURCES

This project is located past the last use of flows for agricultural irrigated cropland; thus, the ditch does not contain or support a fishery.

WILDLIFE RESOURCES

The Snake River in the general vicinity is a wintering area for ducks and geese. The project area, however, presently contains no standing bodies of water, and is not considered to be of use to waterfowl.

A variety of common non-game birds occupy the general area, and expected to also occur in the project area. These include the robin, magpie, several types of sparrow, killdeer, lark, crow, and starling.

Although ring-necked pheasant, mourning dove, Hungarian partridge, and quail are common to the general area, they probably do not range in the project's upper reach due to lack of vegetation or other cover; however, it is probable that the thick brush in the ravine affords some degree of cover to game-birds that may use the area.

Raptors are known to inhabit and use the general vicinity (a pair of golden eagles are known to inhabit the Crystal Springs Hydroelectric Project areaone mile away in Cedar

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Draw Creek canyon). In that a variety of raptors range along the Snake River canyon and adjacent areas, it is not un-expected that raptors may occasionally pass through the project area; however, numerous trips to the site do not indicate any permanent habitation by raptors.

Animals which may be found and are known to exist within the project area include the jackrabbit, cottontail, marmot (rockchuck), ground squirrel, and mice. Other species common to the general vicinity and probably occurring in the project area include the badger, skunk, coyote, and perhaps mule deer.

Rare, Threatened and Endangered Species

Subject to further information provided by agencies, and based upon walk-throughs by the Applicant, there are no rare, threatened and/or endangered species, or candidate species, of wildlife within the project boundary.

WATER QUALITY/QUANTITY

Precipitation run-off, two springs within the project boundary, and irrigation returns comprise the flows available to the project. In that almost the entire flow provided during the period April - October is irrigation return, water quality is generally regarded as poor, primarily due to heavy suspended sediment concentrations of agricultural topsoil and fertilizers. The project area's watershed comprises 1,740 acres.

Ditch flow volumes have been monitored and recorded since January, 1991. Records are presented herein as Table E-1. The monitoring site was established at the location below the proposed embankment's downstream toe. Flows were monitored and recorded on a weekly basis. Results of the effort indicate that, during the non-irrigation season, virtually the entire flow in the ditch--little more than one cfs--was

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TABLE E-1

1991 ACTUAL AVERAGE WEEKLY FLOW DATA
SAHKO HYDROELECTRIC PROJECT

Week of:		Flow - cfs
January	2	1.4
	8	1.4
	15	1.4
	22	1.4
	29	1.4
February	5	1.4
	12	1.4
	19	1.4
	26	1.4
March	5	1.1
	12	1.1
	19	1.1
	26	1.1
April	2	1.1
	9	1.1
	16	2.2
	23	8.0
	30	9.9
May	7	10.4
	14	8.9
	21	8.9
	28	11.9
June	4	13.0
	11	15.2
	18	16.4
	25	15.2
July	2	16.4
	9	17.5
	16	15.2
	23	15.2
	30	11.9
August	6	9.4
	13	8.9
	20	8.9
	27	8.9
September	3	8.9
	10	8.9
	17	8.9
	24	8.9
October	1	8.9
	8	8.9
	15	8.9
	22	7.1
	29	3.5
November	5	3.2
	12	3.2
	19	3.2
	26	3.2
December	3	2.5
	10	1.9
	17	1.4
	24	1.4
Annual Weekly Average		6.6 cfs

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contributed by two springs near the upstream project boundary, and a smaller spring seeping from the ravine's left wall below the proposed embankment's location.

Based on the monitoring effort, flows available from all sources ranged from a low of 1.1 cfs during the winter to a recorded high of 17.5 cfs during the height of the irrigation season. Design flow for the hydroelectric project is fifteen (15) cfs.

LAND USE

The general vicinity is rural, privately-owned, dominated by agriculture, and also provides for some amount of cattle-grazing. Some areas along the Snake River canyon rim remain undeveloped in a natural sagebrush-shrub environment.

The project area's upper reach is bounded on the west by agricultural farmland, and on the east by a sagebrush-shrub environment, used for cattle-grazing. The lower reach is a ravine, undeveloped, and largely un-utilized except for the existence of a gravel road accessing the bottom of the Snake river canyon.

RECREATIONAL USE

As mentioned, the general area is dominated by agriculture and may provide for seasonal game-bird hunting. Given its general character and private ownership, however, recreational pursuits are limited along south side of the Snake river canyon.

The project area similarly provides limited recreational opportunities. The land is privately owned, and contains no features affording recreational opportunities except for a current picnic spot at the powerhouse site.

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HISTORICAL, ARCHEOLOGICAL AND CULTURAL RESOURCES

The land surrounding the project area was first opened to agricultural use with the construction of water delivery canals and laterals in the early twentieth century. It is probable that homesteads were established throughout the general area, and it is possible that a sheep-herder type dwelling existed within the project area, probably near the two existing springs in the project's upper reach. Although surface examinations were made in the immediate area, no artifacts were found.

No other features of historic, archeological or cultural import are known to exist in the project area.

SCENIC AND AESTHETIC RESOURCES

This assessment is based on observations of topography, vegetative cover, and existing developments in the project area.

Criteria used to ascertain the current aesthetic value in the area of the proposed project included:

- Observer position (generally from public areas)

The only public areas includes a county road accessing the project area. Given the area's terrain and the nearest road's proximity, the project will be largely unavailable to view by the public. Given the breadth of the Snake river canyon, wide vistas of view are available from the canyon's north rim, and the ravine is visible.

- Frequency of views

The project area is considered to have "low visibility" characteristics in that it is available to view only when the viewer is within the project boundary, or from the

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Snake River canyon's north rim, approximately 1.5 miles distant. Only a portion of the project area--the ravine--is available to view from the canyon floor.

- View distance

Foreground views are unavailable to the viewer unless the viewer's position is within the project boundary. Middleground and background views of the project are only available from the Snake River canyon's north rim, approximately 1.5 miles distant.

- Screening (by way of vegetation or landform)

Absence of significant vegetation in the project's upper reach provides for limited screening of proposed structures, discussed below. Heavy vegetation in the ravine, however, preclude viewing irrigation flows cascading into the canyon, whether in positions affording foreground, middleground, or background viewing.

- Landscape character

As mentioned, the area's topography prohibits nearby views of the project area, including the proposed impoundment area, and the bypass reach of the ravine, except for their view from the north rim of the Snake River canyon, approximately 1.5 miles distant.

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IMPACTS OF DEVELOPMENT, AND APPLICANT'S PROPOSED MEASURES TO PROTECT OR ENHANCE RESOURCES, OR MITIGATE ADVERSE IMPACTS

This section presents environmental impacts of the hydroelectric project, and identifies those measures proposed to be implemented to mitigate each potentially adverse impact. Any residual impacts remaining after mitigation are also identified.

VEGETATION RESOURCES

Project construction would result in the loss of approximately 1.5 acres of grazing pasture and 0.5 acres of sagebrush/scrub in the reservoir area, and the removal of probably four russian olive trees and an apple tree.

less than 0.25 acres of vegetation would be removed to install pipeline segment extending through pasture (360 ft.); no vegetation would be removed for the pipeline segment extending along an existing road (600 ft.); and aproximately 0.3 acres would be displaced by pipline installation descending the slope to the proposed powerhouse site.

Approximately 0.25 acres of vegetation would be temporarily displaced at the powerhouse site. Of this amount, all but the powerhouse area, tailrace area, and switchyard area could be re-vegetated.

Pending confirmation with resource agencies, no rare, threatened or endangered species of plants would be affected by project construction.

As mitigation, Applicant will provide for planting a seed mix along the perimeter of the reservoir, which seed mix will be specified by the resource agency(ies), as appropriate.

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Applicant will also re-vegetate disturbed areas surrounding the pipeline alignment, and at the powerhouse location.

FISHERY RESOURCES

As no fishery exists in the irrigation drain, no adverse, un-avoidable impacts of project construction and operation are applicable to a fishery.

In that the project will provide a means of improving water quality in the reach, there will be some beneficial--however small--effect on water quality and, thus, the fishery in the Snake River.

WILDLIFE RESOURCES

A terrestrial habitat loss of approximately two acres would result from project construction and operation, largely due to inundation by the new impoundment and, to a lesser extent, displacement by the powerhouse and tailrace channel.

An approximate two-acre increase in aquatic habitat would occur with project completion. It is expected that, with proper re-seeding and the installation of erosion control measures, there will be a positive and beneficial impact to water-fowl species, which would probably avail themselves to the area in the future.

Dust and noise resulting from the use of heavy machinery and other human activity could temporarily disrupt wildlife in the area; however, it is unlikely that wildlife would permanently leave the general area because of the noise, and would probably become acclimated to temporary construction activity, albeit at a "safe" distance.

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Project operations are similarly not expected to permanently displace the area's wildlife, which will likely become acclimated to the structures' existence and the low levels of noise the turbines' operation. Given the scale of development and the numerous other commercial operations in the immediate project area (gravel mining operations, a larger nearby hydroelectric project, a relatively large commercial fish hatchery, all of which are within less than one mile), project operations would not be expected to make any significant contribution to existing noise levels.

Raptors will probably continue to range through the project area, and a valid concern exists about the potential for raptor electrocution due to the new section of power line extending from the powerhouse to the upper reach of the project. Subject to specifications provided by resource agencies, Applicant will "raptor-proof" new transmission facilities within the project boundary.

WATER QUALITY AND QUANTITY

An approximate 700-foot length of intermittent watercourse will be displaced by the proposed impoundment. Given the average width of the ditch--approximately three ft.--it is estimated that actual displacement will be less than one-tenth (0.1) acre.

The impoundment created by the embankment will have a water surface area of approximately 1.70 acres at normal headwater elevation 3390 msl. A constant water surface elevation will be maintained during periods when inflows are equal to turbine capacity(ies); however, inflows will vary throughout the year and, during the irrigation season, irrigation return flows will also vary from day-to-day, and even within a given 24-hour period. Although the project is intended to operate as "run-of-ditch", the impoundment will provide limited storage capability in order to optimize turbine performance. In order to optimize the project, then, it is expected that the pond elevation will vary between 3390 and 3385 msl during periods of irregular inflows

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and the impoundment will occasionally be drawn down--on a temporary basis--in order to provide for cycling the turbines .

Because of intended draw-downs, valid concerns exist about re-filling the impoundment in order for the survival of vegetation which will establish at the water body's perimeter. As identified in the following Table E-2, draw downs will range from the maximum water surface of 3390 msl down to a minimum water body at elevation 3385 msl, representing 1.7 acres and 0.7 acres, respectively. Three "fill-time" values are identified: one for the intended design flow of 15 cfs; another for 10 cfs; and a third for 2 cfs, the approximate minimal value of inflow. In the cases where inflows equal or exceed 10 cfs, re-filling the reservoir would take less than eight (8) hrs.; alternatively at an inflow rate of only 2 cfs--occurring mainly during the post-irrigation season and the winter--re-filling a completely drawn pond would require slightly more than 1.5 days.

Of important note is the proposed reservoir's new function as a settling pond for topsoil-laden, nutrient-rich irrigation return flows. A retaining wall will be constructed in the project's upper reach to trap the majority of sediment. Wall height will provide approximately 2 ft. of freeboard; thus, while most of the sediment will be captured at this point, the impoundment itself will also serve as a final settling pond for suspended sediments.

Applicant intends to periodically remove the sediment deposits which will accumulate behind the proposed retaining wall in the project's upper reach and, as necessary, periodically remove sediment accumulations in the reservoir proper. It is expected, then, that the reservoir will need to be occasionally drained for this purpose. In that such draw-downs will range below the top of the penstock, and could result in a virtually complete de-watering of the impoundment, Applicant would intend to consult with affected resource agencies as to the timing of draw-downs for removing sediment. Potentially unstable slope areas along the pipeline route would be identified

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TABLE E-2

INFLOW/FILL TIME
SAHKO HYDROELECTRIC PROJECT

WATER SURFACE ELEVATION		TOTAL WATER STORAGE VOLUME AT GIVEN ELEV.		WATER STORAGE VOLUME PER FOOT OF ELEV.		FILL TIME PER FOOT OF ELEVATION		
		Acre-Ft	CF	Acre-Ft	CF	@ 15 CFS HOURS	@ 10 CFS HOURS	@ 2 CFS HOURS
▲ Max.	3390	9.47	412,635	1.71	74,450	1.38	2.07	10.34
	3389	7.76	338,185	1.44	62,921	1.17	1.75	8.74
Operating	3388	6.32	275,264	1.18	51,471	0.95	1.43	7.15
Range	3387	5.14	223,793	0.96	41,701	0.77	1.16	5.79
	3386	4.18	182,092	0.83	36,209	0.67	1.01	5.03
▼ Min.	3385	3.35	145,883	0.71	30,797	0.57	0.86	4.28
Top of Penstock	3384	2.64	115,086	0.58	25,464	0.47	0.71	3.54
	3383	2.06	89,623	0.50	21,960	0.41	0.61	3.05
	3382	1.55	67,663	0.43	18,535	0.34	0.51	2.57
	3381	1.13	49,128	0.35	15,189	0.28	0.42	2.11
	3380	0.78	33,940	0.27	11,922	0.22	0.33	1.66
	3379	0.51	22,017	0.20	8,735	0.16	0.24	1.21
	3378	0.30	13,283	0.13	5,626	0.10	0.16	0.78
	3377	0.18	7,656	0.08	3,556	0.07	0.10	0.49
	3376	0.09	4,101	0.05	2,348	0.04	0.07	0.33
	3375	0.04	1,752	0.02	975	0.02	0.03	0.14
	3374	0.02	777	0.01	417	0.01	0.01	0.06
	3373	0.01	360	0.01	240	0.00	0.01	0.03
	3372	0.00	120	0.00	120	0.00	0.00	0.02
	3371	0.00	0	0.00	0	0.00	0.00	0.00
				9.47	412,635	7.64	11.46	57.31

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in pipeline design studies. Mitigation measures for areas identified as potentially unstable would include temporary buttressing during construction, and back-fill and complete re-vegetation following construction. Netting and terracing would be used to prevent slope failure where necessary.

The proposed powerhouse will be constructed away from the stream.

The proposed tailrace will be lined with concrete, and riprap will be placed at its junction with the stream.

As mitigation during and after construction, a substantial erosion control program shall be established, and shall include the use of:

- net covers, where necessary, to impede soil loss on steep slopes;
- straw bales to control runoff;
- use of timed-release fertilizer in areas where the fertility of disturbed soil may hinder re-establishment of vegetation; and
- terracing of disturbed slopes, if necessary, in order to prevent wash-out during severe storms.

After construction is complete, monitoring of erosion control measures shall be done by the contractor. Where greater-than-normal amounts of silt are reaching the shoreline, control measures shall be increased to a point where runoff is of normal quantity and quality.

During normal operations, draw downs shall not occur when re-filling to initial levels would take longer than four days.

Seeps from the spring downstream of the dam will not be affected by the project, and will continue through the reach, providing moisture to the vegetation in the ravine.

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LAND USE

Approximately 1.7 acres will be inundated by the project's water storage. Of this amount, approximately one-quarter is desert/sagebrush terrain, with the remainder being grazed pasture; as a result, this land will no longer be available to grazing.

The land-owner will either reduce the current number of grazing cattle, or re-locate them to other tracts of his land.

HISTORIC, ARCHEOLOGICAL AND CULTURAL RESOURCES

As no resources of cultural or historic import are known to exist in the project area, it is not anticipated that any direct or indirect adverse impacts will occur due to project construction or operation.

SCENIC AND AESTHETIC RESOURCES

As a result of project construction, a new water body will be created. In considering the surrounding area and the lack of standing water bodies, this is not viewed as an adverse impact due to project development.

The attendant embankment will be visible from across the Snake River canyon (ie, from its north rim) approximately 1.5 miles distant. While this might otherwise be viewed as an interruption in the continuity of the canyon wall's profile, it is noteworthy than this section of the Snake River canyon is marked in numerous places by draws and canyons associated with tributary streams. The most noticeable feature of the project, then, may be the earthen embankment as viewed from across the river; however, from the only practical viewpoint (i.e., on the north rim of the canyon), the

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structure would be in the background view, and located farther up the reach of the draw. Also given the numerous other commercial developments in the canyon--notably, several farms, two other hydroelectric projects, a fish hatchery and a gravel pit--it is not expected that this new construction will distinguishably alter the only available viewshed. Although the penstock may be seen from below (ie, down in the canyon) the land is privately owned, and is given over to the above-mentioned commercial operations. The embankment structure will not be visible from below.

In order to minimize the potential for an adverse alteration of the viewshed, however, Applicant will minimize any tree-cutting downstream of the embankment in order that existing tree-growth will serve as further screening the embankment from the viewshed.

In order to reduce the relatively stark alignment of the penstock, Applicant will also use best efforts to "camouflage" the pipeline by use of a weather-protectant paint conducive to the natural surroundings.

Due to the powerhouse's proximity to a large apple tree and other shrubs, it is expected the existing vegetative growth will serve to screen the structure.

RECREATIONAL RESOURCES

In that the land within the project boundary is privately owned, and given its historic use for cattle-grazing and agriculture, there currently exists virtually no opportunity for recreational use.

Because the pond will probably serve as a new haven to waterfowl, Applicant will allow restricted hunting access during the fall.

NOV 2 9 1993

4.61(d)(2)(iii)

CONSULTATION WITH AGENCIES

FIRST-STAGE CONSULTATION

(To be completed)

SECOND-STAGE CONSULTATION

(To be completed)

RECEIVED
NOV 29 1993

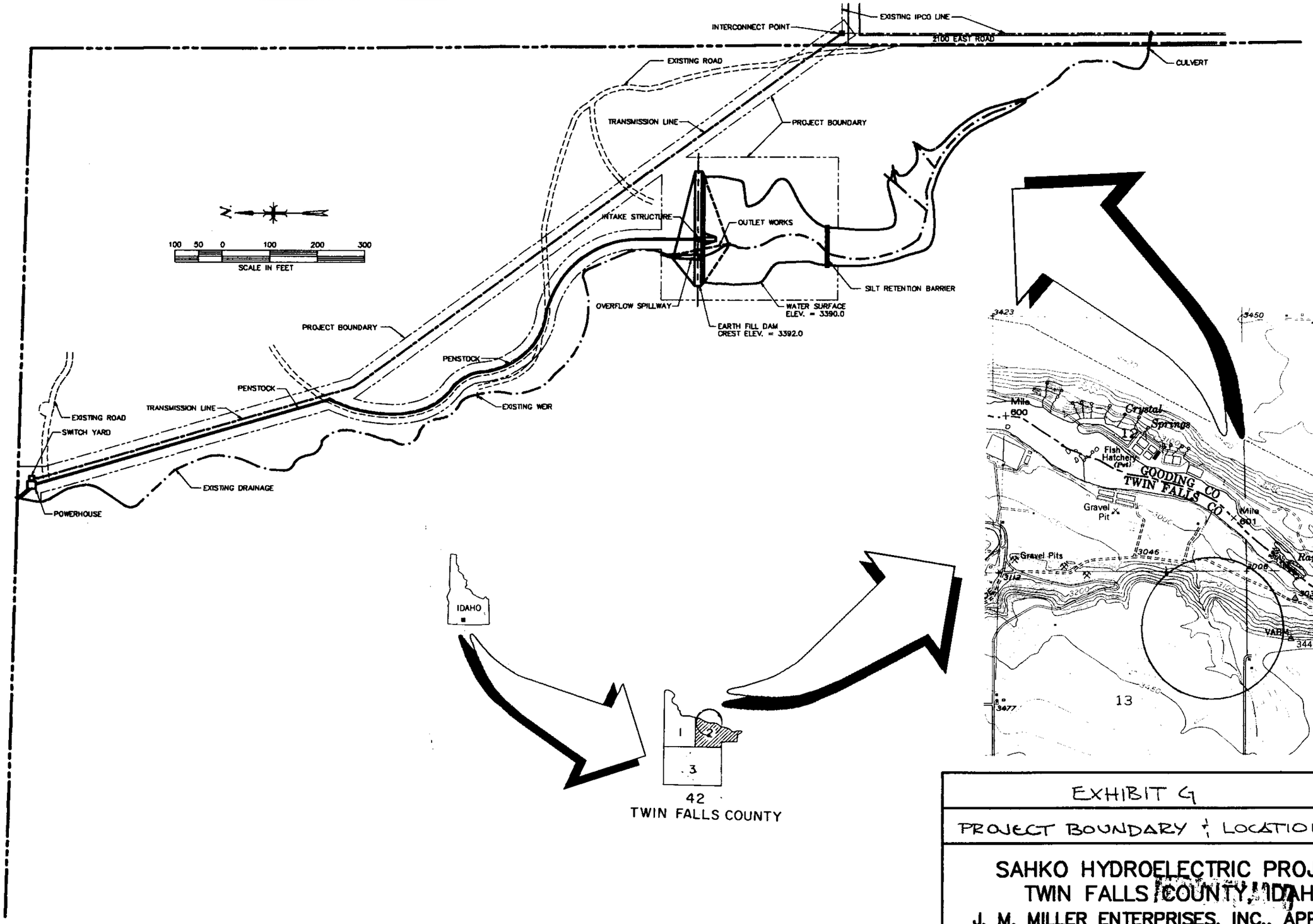


EXHIBIT G

PROJECT BOUNDARY & LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J. M. MILLER ENTERPRISES, INC., APPLICANT

NOV 29 1993

St e of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

10-Aug-1992

JAMES M MILLER PRESIDENT
J M MILLER ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 83301

RE: Protested Application for Permit No. 47-08271

Dear Mr. Miller:

We have received a withdrawal of the protest filed by the Twin Falls Canal Company against approval of the above referenced application.

Since they were the only protestant, the issue of the protest has been resolved.

However, please be advised that your application is subject to the current moratorium on processing new applications which has been imposed due to drought conditions and may be held in this office without further processing until the Moratorium is lifted. At this time we are unable to give a proposed date for further review.

If you have any questions or if this office can be of further assistance, please feel free to contact us.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:MB

RECEIVED

NOV 29 1993

St e of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

10-Aug-1992

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

JACK H EAKIN ACTING MGR
TWIN FALLS CANAL COMPANY
PO BOX 326
TWIN FALLS ID 83303-0326

RE: Application for Permit No. 47-08271 (J.M. MILLER ENTERPRISES, INC)

Dear Mr. Eakin:

This office acknowledges receipt of the withdrawal of your protest against the above referenced application.

Since you were the only protestant, the issue of the protest has been resolved and the Department is now prepared to proceed with the normal processing of the application which includes regional review prior to being forwarded to our State Office.

The Department will continue review of the application without further contact with you unless information is requested.

Please feel free to contact this office if you have any questions regarding this procedure.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:MB

cc: James C. Tucker Esquire

SCANNED

NOV 29 1993

TWIN FALLS CANAL COMPANY

POST OFFICE BOX 326
TWIN FALLS, IDAHO, 83303-0326

July 29, 1992

RECEIVED

JUL 31 1992

Department of Water Resources
Southern Region Office

State of Idaho
Department of Water Resources
220 Shoshone Street East
Twin Falls, Idaho 83301

Attn: Loren Holmes

Subject: Application for Permit No. 47-08271
J.M. Miller Enterprises, Inc.
File No: 6220.12

Dear Loren:

The Twin Falls Canal Company has entered into an agreement with J.M. Miller Enterprises, Inc. concerning the nonconsumptive use of water within the Canal Company's system. The Twin Falls Canal Company therefore withdraws any previous protest and will refrain from protesting the issuance of a permit under the subject application.

Very Truly Yours,

Jack H. Eakin
Acting General Manager

JHE:cs
cc: J.M. Miller
OOAN

RECEIVED

NOV 09 1993

J. M. Miller Enterprises, Inc.

P.O. Box 595 • Twin Falls, Idaho 83303
Phone (208) 622-7215

December 30, 1991

Mr. Loren O. Holmes, P.E.
Southern Region Manager
Department of Water Resources
Southern Region
222 Shoshone St. East
Twin Falls, Idaho 83301

RECEIVED
JAN 03 1992
Department of Water Resources
Southern Region Office

RE: Application for Permit No. 47-08271

Dear Mr. Holmes,

The following information is provided to you relative to the above application:

RE: Response to Protest by TFCC

To address the protest from the TFCC, I have prepared the attached letter and enclosures for Messrs. Rosholt and Tucker.

I would ask that the information provided them also be made a part of my file and be considered at the such time of a hearing, if such hearing is necessary.

As indicated, I am reponding to your suggestion and will try to meet with the protesting parties after they have received the information provided.

After reviewing the basis for their protest, I would, as a lay person, conclude that my situation would not come under the jurisdiction of the TFCC nor be under the stipulations of the Case No. 69005 which they cite as their justification for protest. Please see my Points #1-3 in the enclosed letter as foundations for this opinion.

RE: Response to Your Requests for Addidtional Information

I am reviewing your requests and will be preparing a further response.

Cordially,

James M. Miller

RECEIVED
NOV 9 1993

J. M. Miller Enterprises, Inc.
P.O. Box 595 • Twin Falls, Idaho 83303
Phone (208) 622-7215

December 30, 1991

Mr. James A. Rosholt
Mr. James C. Tucker
Rosholt, Robertson & Tucker
P.O. Box 1906
Twin Falls, ID 83303-1906

RE: Twin Falls Canal Company
Notice of Protest in the matter of
Applicant: James M. Miller
Permit No: 47-08271

Gentlemen:

I was quite surprised that you on behalf of the Canal Company filed the above protest to my water rights application. Although, having read the attachment to your protest, I can see that you would not have had enough information on the application to decide whether such protest was justified. Therefore, such protest may be in protection of the Canal Company pending further information on the project.

You may or may not recall that I was the one who visited Richard Haumann numerous times last spring and summer to try and pursue this matter of my water application with the Canal Company. I had specifically asked Dick about the procedure to get your written permission. Being a new manager, he didn't know the procedures and would have to rely on your guidance. As a shareholder myself, I was wanting you or him and the ditch rider to visit the proposed site of the project to verify that none of the conveyances or water being proposed for nonconsumptive purposes could possibly have any effect on Canal company operations. If we could have scheduled that type of visit to my farm, I think we could have eliminated the possibility of the formal protest as your answer to my offer to have you review the project. I'm sure such a visit will still be necessary to confirm this point, and I will be anxious to schedule such a visit.

In the mean time, let me provide you with this additional information so that you can be more fully informed of the project.

Point #1. As can be seen by the copies from your ditch rider's book of 4/3/91 (attached), my 205 TFCC water shares I take out of Source L-39 comes from the last gate #22 on that source. There is no other user taking TFCC shares below me, and that part of the L-39 water which I would be diverting is from run-off ditches well below your last gate and coming off my fields, just about to go over the south canyon rim into the Snake River.

NOV 29 1993

J. M. Miller Enterprises, Inc.

Phone (208) 622-7215

Point #2. Also, as can be seen by the copies from your ditch rider's book of 4/3/91 (attached), the 53.2 TFCC water shares I take out of Source L-39A comes from the last gate #9 on that source. Again, there is no other user taking TFCC shares below me, and that part of the L-39 water which I would be diverting is from run-off ditches well below your last gate , coming off my fields and, again, just about to go over the south canyon rim into the Snake River.

Point #3. The map of the TFCC distribution system relevant to the area in question (attached) indicates the area of the proposed diversion as being well away from the last indicated conveyances of either the L-39 or L-39A. It should also be noted that there are three other in-operation private power facilities within a mile of my proposed location and all positioned in a similar location along the south rim of the Snake River Canyon. Likewise, there are no TFCC water shares distributed below these facilities, to my knowledge.

Point #4. I find from my reading of Twin Falls Canal Co. vs. State of Idaho Case No. 69005 which you attached to your protest notice (and cited as a foundation for your protest) that:

> "It is further agreed that the natural channel and drain shall not be considered a part to the conveyance system below the last point of diversion from which the canal company delivers water."

As a lay person, I would conclude from the above that this project lies outside the formal jurisdiction of both the TFCC and the Stipulations for Dismissal provisions in Case No. 69005, given the information in Points #1 & #2 above.

Proposal for a Meeting: On the other hand, as a significant shareholder with my approximate current 260 shares and another 125 shares being acquired, it is in all of our interests to meet and review this matter and try and resolve it efficiently.

I would, therefore, request that you be available to discuss this matter with me either by telephone or in person. I will be calling you to arrange such a conference soon after your receipt of this letter.

Cordially,

James M. Miller

cc: Richard Haumann - TFCC
✓ Loren O. Holmes - Dept. of Water Resources

APR 29 1993

Rdr	Knd	Div	Source	Gate	Shares	X .750	Bill Name
	STD	2LL	L 39	21	40.000	30.000	SWEENEY, MICHAEL L.
	STD	2LL	L 39	22	205.000	153.750	MILLER, JAMES M.
14	STD	2LL	L 39A	01	80.000	60.000	HOLMES, MARJORIE
14	STD	2LL	L 39A	02	145.700	109.275	ZINK, WILLIAM B.
14	STD	2LL	L 39A	03	64.550	48.413	BLASS, ROBERT D.
14	STD	2LL	L 39A	04	144.980	108.735	ZINK, WILLIAM B.
14	STD	2LL	L 39A	05	80.000	60.000	BLASS, BILL
14	TG	2LL	L 39A	06	.000	.000	BLASS, CARL
14	STD	2LL	L 39A	07	50.000	37.500	BLASS, ROBERT D.
14	STD	2LL	L 39A	08	123.800	92.850	BLASS, CARL
14	STD	2LL	L 39A	08	1.790	1.343	MYERS, LEWIS & MARGIE
14	STD	2LL	L 39A	09	1.710	1.283	COASSOLO, DANIEL & GRACE
14	STD	2LL	L 39A	09	2.000	1.500	GRACE, BOYD & MARJORIE

---------- Continued on Next Page ----------

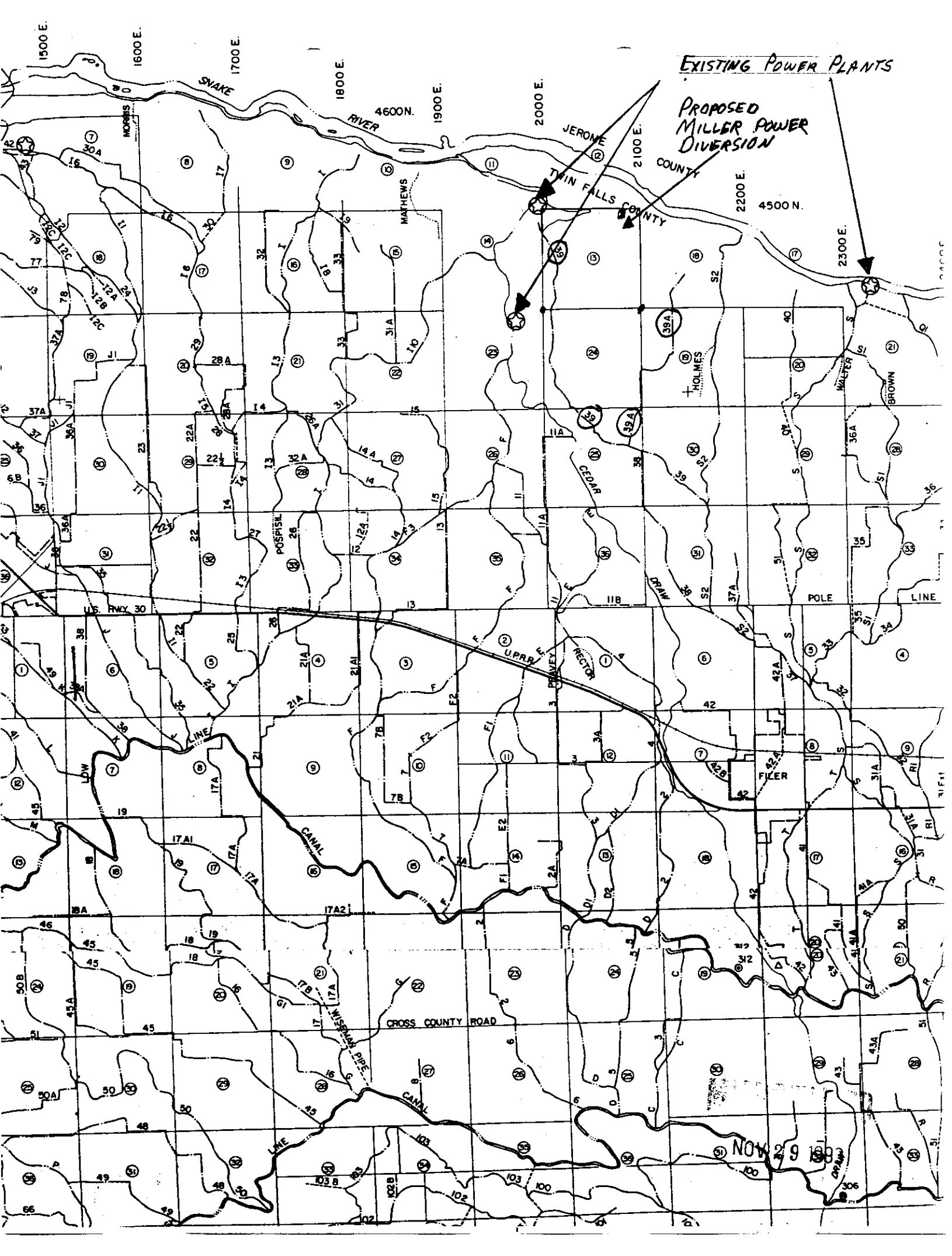
Rdr	Knd	Div	Source	Gate	Shares	X .750	Bill Name
14	STD	2LL	L 39A	09	5.000	3.750	HEIDEL, DENNIS R.
14	STD	2LL	L 39A	09	50.200	37.650	MILLER, JAMES M
14	STD	2LL	L 39A	09	3.000	2.250	MILLER, JAMES M.
14	TG	2LL	L 40	01	.000	.000	VINCENT, ROGER D.
	STD	2LL	L 40	02	23.330	17.498	IHLER, ERNEST
14	STD	2LL	L 40	02	7.530	5.648	MERRILL, PATRICK & JANE
14	STD	2LL	L 40	02	48.140	36.105	RAMSEYER, H. DUANE
14	STD	2LL	L 40	04	240.000	180.000	RAMSEYER, H. DUANE
14	STD	2LL	L 40	05	80.000	60.000	FREEPONS, EILEEN
14	STD	2LL	L 40	05	80.000	60.000	KOHNTOPP, RAYMOND H.
14	STD	2LL	L 40	06	80.000	60.000	IHLER, ERNEST
14	STD	2LL	L 40	07	80.000	60.000	FREEPONS, EILEEN
14	STD	2LL	L 40	08	80.000	60.000	SMITH, H.F.

---------- Continued on Next Page ----------

Rdr	Knd	Div	Source	Gate	Shares	X .750	Bill Name
14	STD	2LL	L 40	09	12.000	9.000	FAY, M. CECELIA
14	STD	2LL	L 40	09	17.000	12.750	RAND, JOSEPH & ELLEN
14	STD	2LL	L 40	10	80.000	60.000	MCCAULEY, MARJORIE
14	TG	2LL	L 40	11	.000	.000	RAMSEYER, H. DUANE
14	STD	2LL	L 40	12	42.400	31.800	BLASS, CARL
14	STD	2LL	L 40	12.5	7.000	5.250	THIEME, NORRIS/KATHERIN
14	STD	2LL	L 40	13	2.770	2.078	DELLAMATER, HARRY
	STD	2LL	L 40	13	6.000	4.500	KALANGE, THOMAS &MARILYN
	STD	2LL	L 40	13	6.500	4.875	KAUFMAN, CHARLES R.
14	STD	2LL	L 40	13	5.000	3.750	LAGRONE, REX & KATHLEEN
14	STD	2LL	L 40	13	2.230	1.673	SHOTWELL, RICHARD & JOANN
14	STD	2LL	L 42	01	2.620	1.965	ATKINSON, RAY & ELIZABETH
14	STD	2LL	L 42	01	5.200	3.900	DOOLEY, BILLY & BETTY

---------- Continued on Next Page ----------

NOV 29 1993


EXISTING POWER PLANTS
PROPOSED MILLER POWER DIVERSION
1500 E.
1600 E.
1700 E.
1800 E.
1900 E.
2000 E.
2100 E.
2200 E.
2300 E.
4600N.
4500 N.
SNAKE RIVER
JEROME COUNTY
TWIN FALLS COUNTY
MORRIS
MATHEWS
HOLMES
WALKER
BROWN
CEDAR DRAW
POSPISIL
U.S. HWY 30
U.P.R.R.
PRAVEY
RECTOR
POLE LINE
FILER
LOW LINE
CANAL
CROSS COUNTY ROAD
WISEMAN PIPE LINE
NOV 29 1983

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

21-Oct-1991

ATTN JAMES M MILLER PRESIDENT
J M MILLER ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 83301

RE: APPLICATION FOR PERMIT NO. 47-08271

Dear Mr. Miller:

Enclosed is a copy of a protest filed against the issuance of a permit pursuant to your above referenced application.

The Department suggests you contact the protestant(s) directly to determine the exact nature of the protest(s) and, if possible, to resolve the matter without action by the Department.

The attachment to this letter describes the issues which the Department must consider in taking action on an application for permit. It also gives a brief description of the conference and hearing procedure followed by the Department in resolving protested applications.

If you have any questions or if this office can be of further assistance, please feel free to contact us.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:MB
Enclosure(s)

MICROFILMED
NOV 29 1993

Attachment to letter dated 21-Oct-1991

To all parties in the matter of
Application for permit No. 47-08271
In the name of J.M. Miller Enterprises

PROTESTED APPLICATION FOR PERMIT:
ISSUES CONSIDERED, CONFERENCE PROCEDURE

In processing all applications for permit, the department must consider the following issues, which are specified in Section 42-203A of the IDAHO CODE:

1) Will the proposed use reduce the quantity of water under existing rights?

2) Is the proposed water supply insufficient for the purposes intended?

3) Is the application made in good faith or for delay or speculative purposes?

4) Has the applicant sufficient financial resources with which to complete the proposed project?

5) Will the proposed use conflict with the local public interest?

6) Is the proposed use contrary to conservation of water resources within the state of Idaho?

When an application is protested, the statute requires the department to conduct a hearing to create a record of the evidence considered in approving or denying the application.

Normally, an informal pre-hearing conference is held prior to the actual hearing. The objectives of the informal conference are as follows:

1) To familiarize all parties with the application and the issues being raised.

2) To provide a forum for discussion and possible resolution of the matter among the parties.

3) To provide information to the parties about the department's hearing procedure in deciding protested applications.

4) To discuss scheduling of the matter for hearing.

Notices setting the time and place for the conference will be sent by certified mail to all parties at least 10 days prior to the conference. This is the same procedure specified by law for serving notice of hearings.

Conferences are conducted under Rules for Practice and Procedure adopted under the Idaho Administrative Procedures Act.

NOV 29 1993

tate of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

21-Oct-1991

JAMES C TUCKER ESQUIRE
PO BOX 1906
TWIN FALLS ID 83303-1906

RE: APPLICATION FOR PERMIT NO. 47-08271 (J. M. Miller Enterprises)

Dear Mr. Tucker:

Your protest against the approval of the above referenced application on behalf of the Twin Falls Canal Company, has been received and a copy has been sent to the applicant with the suggestion that he contact you directly to determine the exact nature of the protest and, if possible, to resolve the matter without action by the Department.

The attachment to this letter describes the issues which the Department must consider in taking action on an application for permit. It also gives a brief description of the conference and hearing procedure followed by the Department in resolving protested applications.

If you have any questions or if this office can be of further assistance, please feel free to contact us.

Very truly yours,

Loren O. Holmes, P.E.
Southern Region Manager

LH:MB
Enclosure(s)

1993

Proof of Publication

The Post-Register

State of Idaho,
County of Bonneville } ss

I, S. BOB BRIGHT or TED DELEZENE, first being duly sworn, depose and say: That I am the Production Supervisor or Asst. Prod. Supervisor of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post-Register, a newspaper of general circulation, published daily, except Saturday, at Idaho Falls, Idaho; said Post-Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880 and the Idaho Falls Post, established in 1903, such consolidation being made on the 1st day of November, 1931, and each of said newspapers have been published continuously and uninterruptedly, prior to consolidation, for more than seventy-eight (78) weeks and said Post-Register having been published continuously and uninterruptedly from the date of such consolidation, up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post-Register for ... Two ..... consecutive weeks, first publication having been made on the ..3rd..... day of ..October..10....., 19.91.., last publication having been made on the .10th..... day of ..October....., 1991.., and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

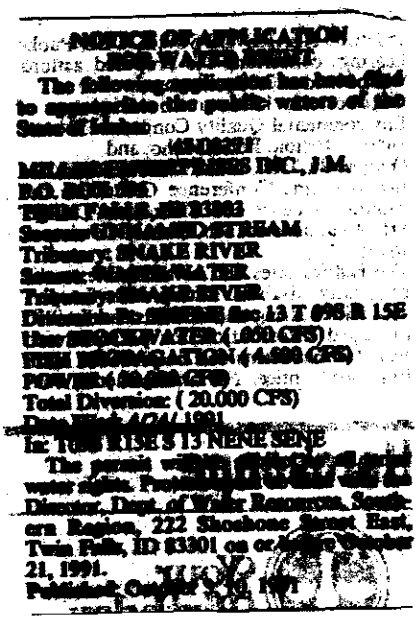
S. Bob Bright

Subscribed and sworn to before me, this ..16th. day of October....., 19.91..

Susan Magnuson
Notary Public

My commission expires . July. 1st ....., 19.97..

B10



NOTICE OF APPLICATION
FOR WATER RIGHT

The following applicant has made filing to appropriate the public waters of the State of Idaho as follows:

[redacted]

Tributary: SNAKE RIVER

Source: GROUNDWATER

Tributary: SNAKE RIVER

Diversion: Sec 13 T 6S R 15E

Use: GROUNDWATER (1.000 CFS)

IRRIGATION (4.000 CFS)

POWER (15.000 CFS)

Total Diversion: (20.000 CFS)

Date Filed: AGAI 1991

In: T 6S R 15E S 13 NENE SENE

The permit will be issued subject to existing water rights. Protests may be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 21, 1991.

Published: October 10, 1991

OK MB

RECEIVED

OCT 21 1991

Department of Water Resources
Southern Region Office

NOV 29 1993

Proof of Publication

The Post-Register

RECEIVED
SEP 13 1991
Department of Water Resources
Southern Region Office

State of Idaho,
County of Bonneville } ss

I, S. BOB BRIGHT or TED DELEZENE, Production Supervisor or Asst. Prod. Supervisor of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post-Register, a newspaper of general circulation, published daily, except Saturday, at Idaho Falls, Idaho; said Post-Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880 and the Idaho Falls Post, established in 1903, such consolidation being made on the 1st day of November, 1931, and each of said newspapers have been published continuously and uninterruptedly, prior to consolidation, for more than seventy-eight (78) weeks and said Post-Register having been published continuously and uninterruptedly from the date of such consolidation, up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post-Register for Two consecutive weeks, first publication having been made on the 1st day of August, 19 91, last publication having been made on the SM ~~8th~~ 22nd day of August, 19 91, and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

Subscribed and sworn to before me, this SM 10th ~~14th~~ day of SM ~~August~~ September, 19 91

S. Bob Bright

Susan Thayne
Notary Public

My commission expires July 1st, 19 91

B10

OK except no publish 8/15/91

NB 9-18-91

OK

NOTICE OF APPLICATION
FOR TRUST WATER RIGHT

[redacted]

SM

NOV

NOTICE OF APPLICATION
FOR TRUST WATER RIGHT

[redacted]
MILLER ENTERPRISES INC., J.M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WATER WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 19E
Use: STOCKWATER (.050 CFS)
FIRE PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.000 CFS)
Date Filed: 4/24/1991
Loc T09S R19E S13 NESWE SESWE
The [redacted] with be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 227 Shoshone Street East, Twin Falls, Idaho 83301 on or before SEPTEMBER 2, 1991.
R. KEITH HIGGINSON, Director
Published: August 22, 1991

SM

The Post-Register

EAST IDAHO'S HOME PAPER

333 NORTHGATE MILE IDAHO FALLS, IDAHO 83401 DIAL 522-1800

RECEIVED
SEP 13 1991
Department of Water Resources
Southern Region Office

6570
Idaho Dept State of
Department of Water Resource
Southern Region
222 Shoshone Street East
Twin Falls, Idaho 83301

Federal ID #82-0220642

TEAR OFF THIS SLIP AND ENCLOSE WITH CHECK TO ASSURE PROPER CREDIT BEING GIVEN.
YOUR CANCELLED CHECK WHEN RETURNED BY YOUR BANK IS A VALID RECEIPT.

$_____

DATE	INCHES - LINES	WORDS	DAYS	CHARGES	✓	CREDITS	BALANCE
				BALANCE FORWARD			
August 1, 1991							
				Legal Notice: Notice of Application for trust water right 47-08271			
				Published August 1 & 22, 1991			
				$ 29.48			$ 29.48

I hereby certify that the foregoing account is correct and just, that the services were actually rendered as charged, and I/we have not received payment thereof.

THE POST REGISTER

Susan Magnan

Susan Magnan
Accounting Clerk

mb
9-18-91
Please pay

NOV 29 1993

EXPLANATION OF SYMBOLS:
DS DISPLAY ADV. CL CLASSIFIED ADV. LG LEGAL ADV. SP SPECIAL ADV.
EC ENGRAVED CUTS CS CASH AJ ADJUSTMENT RE RE-ORDER (CLASSIFIED ADV.)

NOTICE OF APPLICATION FOR WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:

47-08271

MILLER ENTERPRISES INC., J. M.
P.O. BOX 595
TWIN FALLS, ID 83303

Source: UNNAMED STREAM — Tributary: SNAKE RIVER
Source: WASTE WATER — Tributary: SNAKE RIVER

Diversion Pt: SESENE Sec 13 T 09S R 15E

Use:		
	STOCKWATER	(.050 CFS)
	FISH PROPAGATION	(4.500 CFS)
	POWER	(20.000 CFS)
	Total Diversion:	(20.000 CFS)

Date Filed: 4/24/ 1991

In: T09S R15E S13 NENE SENE

The permit will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 21, 1991.

Published 10/3 & 10/10/91

NOV 29 1993

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

17-Sep-1991

ATTN LEGAL ADS
POST REGISTER
PO BOX 1800
IDAHO FALLS ID 83402

Re: Re-publications of legal ads

Gentlemen:

Enclosed please find a legal that we need to re-publish on the dates as submitted. I understand this publication will be at no cost to the Department. Enclosed for your reference are copies of the original legal ad and subsequent correspondence that will perhaps help clarify this confusing situation.

Legal ads submitted by the Regional Office in Twin Falls are to be run as submitted unless changes are authorized by the Department. The publication dates, set up by Idaho Code, usually fall on the first and third publishing date of the month unless holidays intervene.

Also, please alert your billing staff that the Departmental address within the legal determines which office should receive the galley proof, affidavit of publication and the billing statement.

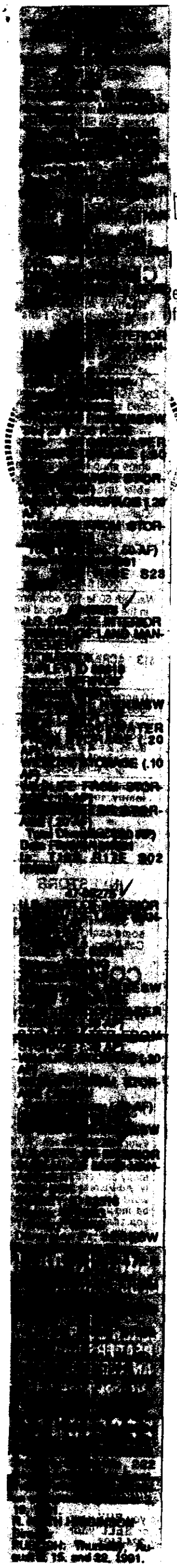
If you have any questions, please feel free to contact me.

Very truly yours,

Mary Baldwin
Secretary/Office Coordinator

Enclosures

NOV 8 9 1991



Affidavit of Publication

STATE OF IDAHO }
COUNTY OF TWIN FALLS } ss.

№ 22693

I, Linda Capps McGuire being first duly sworn upon oath, depose and say that I am Legal Clerk of the TIMES-NEWS, published daily, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for Four consecutive Weeks, commencing with the issue dated August 1, 1991, and ending with the issue dated August 22, 1991.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 31, 1978, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO
COUNTY OF TWIN FALLS

On this 29 day of August in the year of 1991, before me, a Notary Public, personally appeared Linda Capps McGuire, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Martha Caldwell
Notary Public for Idaho
Residing at Twin Falls
My commission expires: 8-8-96

NOV 29 1993

9/18/91

John A. Rosholt
James C. Tucker
ROSHOLT, ROBERTSON & TUCKER
P. O. Box 1906
Twin Falls, Idaho 83303-1906
Telephone: (208) 734-0700
4809p/dj/08-30-91

RECEIVED
AUG 30 1991
Department of Water Resources
Southern Region Office

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF PERMIT NO. 47-08271 Applicant: James M. Miller and/or J.M. Miller Enterprises, Inc.	NOTICE OF PROTEST

Twin Falls Canal Company (hereinafter the Company), by and through its attorneys, Rosholt, Robertson & Tucker, files its Notice of Protest to the continuance or approval of the Application for Permit Number 47-08271 filed in the name of James M. Miller and/or J.M. Miller Enterprises, Inc. The basis for the Company's protest is as follows:

1. The application filed by the applicant seeks to divert developed waters that are subject to the prior right of the Company and which are transmitted and delivered by constructed conveyances owned and operated by the Company, and the proposed use by the Applicant will interfere with, and adversely impact, the Company's use of said waters and the operation and maintenance of its conveyancing system.

2. The proposed diversion and use of the waters described in the aforesaid application are subject to those

NOV 29 1993

prohibitions and conditions contained in that certain stipulation filed in Civil Case No. 69005, a copy of which is attached hereto and by said reference made a part hereof.

3. For such other and further reasons as may be set forth at the hearing on this matter including, but not limited to, those criteria set forth in I.C. § 42-203A(5).

DATED this 30th day of August, 1991.

ROSHOLT, ROBERTSON & TUCKER

By: Justin Seamons, for
JAMES C. TUCKER

CERTIFICATE OF MAILING

I hereby certify that on this 30th day of August, 1991, I served a copy of the foregoing NOTICE OF PROTEST, by depositing same in the United States mail, postage prepaid, in an envelope, addressed to the following:

James M. Miller, President
J.M. Miller Enterprises, Inc.
P. O. Box 595
Twin Falls, Idaho 83303-0595

Justin Seamons, for
JAMES C. TUCKER

RECEIVED
NOV 29 1993

IN THE DISTRICT COURT OF THE FOURTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF ADA

* * * * * * * * * *

TWIN FALLS CANAL COMPANY, Plaintiff, vs. THE STATE OF IDAHO, by and through the DEPARTMENT OF WATER RESOURCES, Defendant.	Case No. 69005 STIPULATION FOR DISMISSAL WITHOUT PREJUDICE

* * * * * * * * * *

COMES NOW the Plaintiff, Twin Falls Canal Company, and the Defendant, the Department of Water Resources, and hereby stipulate and agree that the above-referenced action may be dismissed without prejudice subject to the following conditions and agreements:

The Department of Water Resources hereby agrees that the following conditions and guidelines will be applied to all appropriations of water within the service area of the Twin Falls Canal Company and that all permits issued within such area shall be subject to such conditions:

1. Constructed Conveyances. When an additional use is to be made of water from a manmade canal, ditch or other constructed conveyance, whether for consumptive or nonconsumptive use, the appropriator must obtain the permission of

NOV 29 1993

the Twin Falls Canal Company before he can divert any water. It is agreed that the source of water is the natural stream or river from which the conveyance heads. Therefore, the department will not issue a permit without evidence of a right-of-way to use the point of diversion and conveyance system and/or the written permission of the Twin Falls Canal Company, the owner of the conveyance works.

2. Natural Channel Conveyances or Constructed Drains. It is recognized by the parties hereto that within the Twin Falls Canal Company system, constructed drains and natural channels are used as integral parts of the delivery system. Runoff and seepage water collected in the drains and channels is used to supply water to shareholders lower in the project.

Therefore, when an appropriation from a natural channel is proposed for consumptive or nonconsumptive use within which a substantial proportion of the flow is water injected into the channel and diverted from the channel by the canal company, the potential exists for interference with the operation of the Twin Falls Canal Company. To insure that the Company's interest is protected, any such permit issued by the Department of Water Resources within the Twin Falls Canal Company system will be conditioned as follows:

> "Water shall not be diverted under this permit until a written agreement with the irrigation district or canal company serving the area containing the point of diversion is filed with the Department of Water Resources providing for coordination of the permitted use with the irrigation district or canal company operation."

If the canal company either owns the land through which a constructed drain flows or has an easement for the drain, a permit issued to appropriate water from a constructed drain so situated will carry the following condition:

> "Water shall not be diverted under this permit until an easement or right of way with the owner of the

RECEIVED
NOV 29 1993

drain providing for access to the drain is filed with the department."

It is further agreed that the natural channel and drain shall not be considered a part of the conveyance system below the last point of diversion from which the canal company delivers water.

In the event that the Department of Water Resources fails to follow and impose the above-referenced guidelines and conditions, the parties further stipulate and agree that Twin Falls Canal Company may initiate a new action and that this Stipulation for Dismissal without Prejudice entered into herein by the parties shall not operate as a bar or be considered to be res judicata as to the issues raised in any such new action.

DATED this 22 day of October 1981.

NELSON, ROSHOLT, ROBERTSON, TOLMAN & TUCKER

By: _____
James C. Tucker

TWIN FALLS CANAL COMPANY

By: _____
Bryan Harris, Jr., President

ATTEST:

_____
Maurice Klaas, Secretary

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

By: _____
A. Kenneth Dunn, Director

By: _____
Deputy Attorney General

NOV 29 1993

S. Region
5/89

Application No. 47-08271

ADDITIONAL INFORMATION REQUIREMENTS
FOR FISH PROPAGATION APPLICATIONS
FIVE (5) CFS AND LESS

The following additional information is required to be made part of the application file pursuant to IDAHO CODE section 42-203A and the Rules and Regulations for Water Appropriation:

1) Copies of deeds, leases, easments, or other information documenting that you have a possessory interest in the place of use. (Rule 4,5,3,3,1)

2) Copies of plans and specifications for the project works. The plans must be definite enough to allow for determination of project impacts and implications. For fish propagation facilities the plans must show the number of ponds proposed and give the length, width and depth dimensions of all ponds. (Rule 4,5,3,4,2)

3) You must seek comment on the effects of the construction and operation of the proposed project from the city and/or county within which the project is to be located, the Idaho Department of Fish and Game, the Idaho Department of Health and Welfare, Division of Environment, and any irrigation district or canal company within which the project is to be located. (Rule 4,5,3,5,1) A copy of your application is enclosed for your use in seeking comments.

NOV 2 9 1993

10-24-91

S. Region
5/89

Application No. 47-08271

ADDITIONAL INFORMATION REQUIREMENTS FOR POWER APPLICATIONS MORE THAN 5 CFS AND MORE THAN 500 HP

The following additional information is required to be made part of the application file pursuant to Idaho Code provisions and the department's Rules and Regulations for Water Appropriation:

1) An affidavit to establish residence and indicate the ownership of any existing man-made works to be used in the project must be completed and filed with your application. (Sections 42-205 through 208, Idaho Code) A form is enclosed for your completion and return.

2) All information required by rule 4,5,3 of the Rules and Regulations for Water Appropriation. This requirement may be met in one of two ways:

   A) Submit all information required by rule 4,5,3 to the department for review. The department may then act on your application independently of actions of the Federal Energy Regulatory Commission (FERC) and/or the Idaho Public Utilities Commission (PUC).

   B) Submit all required approvals of FERC and/or PUC.

Attach: Copy of Rule 4,5,3

NOV 29 1993

Sent 10-24-91

NOV 29 1993

4,5,3. Information to be submitted

The following information shall be submitted for applications to appropriate unappropriated water or trust water and for permits being reprocessed for trust water. The additional information submittal requirements of this rule are waived for filings which seek to appropriate five (5) cfs or less or storage of five hundred acre-feet (500 A-F) or less and for filings seeking reallocation of trust water which the director determines will reduce the flow of the Snake River measured at Murphy Gauge by not more than two (2) acre-feet per day. For filings proposing irrigation as a purpose of use, the additional information is required if more than 200 acres will be irrigated. However, the director may specifically request submittal of any of the following information for any filing, as he determines necessary.

4,5,3,1. Information relative to the effect on existing water rights, Section 42-203A(5)(a), Idaho Code, shall be submitted as follows:

4,5,3,1,1. For applications appropriating springs or surface streams with 5 or fewer existing users, either the identification number, or the name and address of the user, and the location of the point of diversion and nature of use for each existing water right shall be submitted.

4,5,3,1,2. For applications appropriating groundwater, a plat shall be submitted locating the proposed well relative to all existing wells and springs and permitted wells within a one-half mile radius of the proposed well.

4,5,3,1,3. Information shall be submitted concerning any design, construction, or operation techniques which will be employed to eliminate or reduce the impact on other water rights.

4,5,3,2. Information relative to sufficiency of water supply, Section 42-203A(5)(b), Idaho Code, shall be submitted as follows:

4,5,3,2,1. Information shall be submitted on the water requirements of the proposed project, including, but not limited to, the required diversion rate during the peak use period and the average use period, the volume to be diverted per year, the period of year that water is required, and the volume of water that will be consumptively used per year.

4,5,3,2,2. Information shall be submitted on the quantity of water available from the source applied for, including, but not limited to, information concerning flow rates for surface water sources available during periods of peak and average project water demand, information concerning the properties of the aquifers that water is to be taken from for groundwater sources, and information on other sources of supply that may be used to supplement the applied for water source.

4,5,3,3. Information relative to good faith, delay, or speculative purposes of the applicant, Section 42-203A(5)(c), Idaho Code, shall be submitted as follows:

4,5,3,3,1. The applicant shall submit copies of deeds, leases, easements or applications for rights-of-way from

federal or state agencies documenting a possessory interest in the lands necessary for all project facilities and the place of use or if such interest can be obtained by eminent domain proceedings the applicant must show that appropriate actions are being taken to obtain the interest. Applicants for hydropower uses shall also submit information required to demonstrate compliance with Sections 42-205 and 42-206, Idaho Code.

4,5,3,3,2. The applicant shall submit copies of applications for other needed permits, licenses and approvals, and must keep the department apprised of the status of the applications and any subsequent approvals or denials.

4,5,3,4. Information Relative to Financial Resources, Section 42-203A(5) (d), Idaho Code, shall be submitted as follows:

4,5,3,4,1. The applicant shall submit a current financial statement certified to show the accuracy of the information contained therein, or a financial commitment letter along with the financial statement of the lender or other evidence to show that it is reasonably probable that financing will be available to appropriate the water and apply it to the beneficial use proposed.

4,5,3,4,2. The applicant shall submit plans and specifications along with estimated construction costs for the project works. The plans shall be definite enough to allow for determination of project impacts and implications.

4,5,3,5. Information Relative to Conflict with the Local Public Interest, Section 42-203A(5) (e), Idaho Code, shall be submitted as follows:

4,5,3,5,1. The applicant shall seek comment and shall submit all letters of comment on the effects of the construction and operation of the proposed project from the governing body of the city and/or county and tribal reservation within which the point of diversion and place of use are located, the Idaho Department of Fish and Game, the Idaho Department of Health and Welfare, Division of Environment, and any irrigation district or canal company within which the proposed project is located and from other entities as determined by the director.

4,5,3,6. The following information Relative to the Public Interest Criteria of Section 42-203C(2), Idaho Code, shall be submitted by an applicant seeking reallocation of trust water for a project which the director determines will reduce the flow of the Snake River by more than two (2) acre-feet per day. For filings proposing irrigation as a purpose of use, the additional information is required if more than 200 acres will be irrigated. The director may request any or all of the following information for any filing seeking the reallocation of trust water.

4,5,3,6,1. A project design and estimate of cost of development shall be submitted. For applications appropriating more than 25 cfs, or 10,000 AF of storage, or generating more than 5 megawatts, the information shall be prepared and submitted by a qualified engineer licensed under the provisions of Chapter 12, Title 54, Idaho Code, unless waived by the director. The design shall be definite enough to reflect the project's impacts and implications as required in subsequent rules.

NOV 2 8 1993

4,5,3,6,2. If the project proposes development for irrigation purposes, information shall be submitted on crop rotation, including acreages, for lands when newly developed.

4,5,3,6,3. Information shall be submitted concerning the number and kinds of jobs that will be created or eliminated as a direct result of project development including both the construction and operating phases of the project. If jobs are seasonal, the estimated number of months per year of employment shall be submitted.

4,5,3,6,4. For applications or permits being reprocessed for more than 25 cfs, or more than 10,000 AF of storage, or more than 5 megawatts, information shall be submitted concerning the changes to community services that will be required during the construction and operation phases of the project including, but not limited to, changes to schools, roads, housing, public utilities and public health and safety facilities, if any.

4,5,3,6,5. Information shall be submitted concerning the source of energy for diverting and using water for the project, the estimated instantaneous demand and total amount of energy that will be used, the efficiency of use, and energy conservation methods.

4,5,3,6,6. Information shall be submitted concerning the location,amount, and quality of return flow water, and any water conservation features of the proposed project.

4,5,3,6,7. If the project proposes irrigation as a use, information shall be submitted concerning the kinship, if any, of the operator of the land to be irrigated by the project to the applicant, the location and acreage of other irrigated lands owned, leased, or rented by the applicant, the names, addresses and number of shares held by each shareholder if the applicant is a corporation, evidence of tax-exempt status if a corporation is so claiming, a soil survey prepared in accordance with the U.S. Soil Conservation Service irrigable land classification system, and a schedule for bringing into production the project lands.

NOV 2 9 1993

TRIBUNE PUBLISHING COMPANY, INC.
The Lewiston Morning Tribune
505 C St., P.O. Box 957
Lewiston, Idaho 83501
(208) 743-9411

LEGAL ADVERTISING
INVOICE

Date _____ INVOICE No. _____

Account No. _____

Description _____

Times _____ Lines _____

Tab Lines _____

SOLD TO:

$ _____

RECEIVED
AUG 30 1991
Department of Water Resources
Southern Region Office

NOTICE: This is an invoice of Purchase made by the Statement will be rendered the first of the month.
Please Retain This Invoice as Your Statement Will Refer To Invoice by No. Only.

AFFIDAVIT OF PUBLICATION

04575
NOTICE OF APPLICATION FOR TRUST WATER RIGHT
47-08271
MILLER ENTERPRISES INC., J.M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
T[illegible] SNAKE RIVER
Diversion
[illegible]43 T 09S R 18E
Use: STOCKWATER (.050 CFS)
FISH PROPAGATION
(4.500 CFS
POWER (20.000 CFS)
Total Diversion:
(20.000 CFS)
Filed: [illegible]91
NENE
SENE
[illegible] will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before September 2, 1991.
R. KEITH HIGGINSON,
Dir

OK MB 9/17/91

RECEIVED
AUG 30 1991
Department of Water Resources
Southern Region Office

NOV 29 1993

STATE OF IDAHO, ss.
County of Nez Perce

Sue Baumeister, being duly sworn, deposes and says, I am the Legal Clerk of the Tribune Publishing Company, a corporation organized and existing under and by virtue of the laws of the State of Idaho, publishers of the LEWISTON MORNING TRIBUNE, a newspaper of general circulation published at Lewiston, Nez Perce County, Idaho; That the said Lewiston Morning Tribune is an established paper and has been published regularly and issued regularly at least once a day for more than 21 consecutive years next immediately preceding the first publication of this notice, and has been so published uninterrupted for said period; that the

NOTICE OF APPLICATION FOR

attached hereto and which is made a part of this affidavit was published in the said Lewiston Morning Tribune, [illegible] time(s). Publication being on 08/29/91, or once a WEEK for 2 consecutive WEEKS, the first publication thereof being on the 08/29/91, and the last publication thereof being on the 09/05/91, and said NOTICE OF APPLICATION FOR was so published in the regular and entire issue of said newspaper and not in a supplement thereof and was so published in every issue and number of the said paper, during the period and times of publication as set forth above.

Sue Baumeister

SUBSCRIBED AND SWORN BEFORE ME THIS THE 28 day of August 1991.

Sheral M Lantz

Notary Public in and for the State of Idaho, residing at Lewiston, therein.

The Idaho Statesman

P.O. BOX 40, BOISE, IDAHO 83707

LEGAL ADVERTISING INVOICE

Amount Due
32.32

Account Number	Identification		
100632	App/Trust Water Right		
Ordered By	**P.O. Number**	**Rate**	**Run Dates**
Mary Baldwin		NT	August 15 and 22, 1991

State of Idaho
Department of Water Resources
Southern Region
222 Shoshone Street East
Twin Falls, Idaho 83301

Estimated Inches	Real Inches
# Affidavits	**Legal Number**
1	9138

NOTICE OF APPLICATION FOR TRUST WATER RIGHT
47-9871
MILLER ENTERPRISES INC.,
J. M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use:
STOCKWATER (.089 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.089 CFS)
Date Filed: 4/24/1991
In: T09S R15E S13 NENE SENE
The permit(s) will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before SEPTEMBER 2, 1991.
R. KEITH HIGGINSON, Director
Pub. Aug. 15, 22, 1991 9138

OK mb 9/17/91

Jill Roberts, being duly sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto; that said notice was published in The Idaho Statesman in conformity with Section 60-108, Idaho Code as amended, for two

☒ consecutive weekly ☐ consecutive daily ☐ single ☐ odd skip

insertion(s) beginning with the issue of August 15, 1991

and ending with the issue of August 22, 1991

Jill Roberts

STATE OF IDAHO)
ss.
COUNTY OF ADA)

On this 22nd day of August in the year of 1991 before me, a Notary Public, personally appeared Jill Roberts, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that she executed the same.

Notary Public for Idaho
Residing at Boise, ID
My commission expires: 1/93

RECEIVED
AUG 23 1991
Department of Water Resources
Southern Region Office

NOV 29 1993

The Idaho Statesman

P.O. BOX 40, BOISE, IDAHO 83707

LEGAL ADVERTISING INVOICE

Amount Due
18.66

Account Number	Identification
100632	App/Trust Water Right

Ordered By	P.O. Number	Rate	Run Dates
Mary Baldwin		NT	1991 August 1 & ~~8, 1991~~ cancelled

State of Idaho
Department of Water Resources
Southern Region
222 Shoshone Street East
Twin Falls, Idaho 83301

Estimated Inches	Real Inches
# Affidavits	Legal Number
1	9051

NOTICE OF APPLICATION FOR TRUST WATER RIGHT
47-08271
MILLER ENTERPRISES INC., J. M.
P.O. BOX 595
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use:
STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.000 CFS)
Date Filed: 4/24/1991
In: T09S R15E S13 NENE SENE
The permit(s) will be subject to all prior water rights. Protests must be filed with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before AUGUST 19, 1991.
R. KEITH HIGGINSON, Director
Pub. Aug. 1, 8, 1991 9051

OK NMB 9/17/91

Jill Roberts, being duly sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto; that said notice was published in The Idaho Statesman in conformity with Section 60-108, Idaho Code as amended, for one

☒ consecutive weekly ☐ consecutive daily ☐ single ☐ odd skip

insertion(s) beginning with the issue of August 1, 1991

and ending with the issue of August 1, 1991

Jill Roberts

RECEIVED
AUG 12 1991
Department of Water Resources
Southern Region Office

STATE OF IDAHO)
ss.
COUNTY OF ADA)

On this 7th day of August in the year of 1991, before me, a Notary Public, personally appeared jill Roberts, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that she executed the same.

Janie Madee
Notary Public for Idaho
Residing at Boise, ID
My commission expires: 5/97

NOV 29 1993

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

08-Aug-1991

ATTN JAMES M MILLER PRESIDENT
J M MILLER ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 83301

Re: Application for Permit No. 47-08271

Dear Mr. Miller:

I wanted to keep you updated on the progress regarding the above referenced application for permit.

My correspondence to you dated 7/18/91 indicated that advertising would occur in the Idaho Statesman, Post Register, Lewiston Morning Tribune, and Times News on 8/1 & 8/8/91; **however**, the Lewiston Morning Tribune encountered a publishing deadline problem and could not publish as we requested.

Therefore, I anticipate that the advertising will occur in all four newspapers on 8/15 & 8/22/91 with the last date for the submitting of timely protests on September 2, 1991.

If you have any questions please feel free to contact me.

Very truly yours,

Mary Baldwin
Secretary/Office Coordinator

NOV 29 1993

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

06-Aug-1991

ATTN SHELLEY
POST REGISTER
PO BOX 1800
IDAHO FALLS ID 83402

Re: Re-schedule of publication of legal ad, 47-08271 (J.M. Miller Enterprises, Inc.)

Dear Shelley:

Enclosed please find a paper copy containing the modifications to the legal ad that we discussed by telephone on this date concerning the above referenced water right number.

It is my understanding that the publication scheduled for 8/8/91 was cancelled and re-scheduled for re-publication on 8/15 & 8/22/91.

If you have any questions, please feel free to contact me.

Very truly yours,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

NOV 29 [illegible]

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

06-Aug-1991

ATTN MARLA MILLER
TIMES NEWS
PO BOX 548
TWIN FALLS ID 83301

Re: Re-schedule of publication of legal ad, 47-08271 (J.M. Miller Enterprises, Inc.)

Dear Marla:

Enclosed please find a paper copy containing the modifications to the legal ad that we discussed by telephone on this date concerning the above referenced water right number.

It is my understanding that the publication scheduled for 8/8/91 was cancelled and re-scheduled for re-publication on 8/15 & 8/22/91.

If you have any questions, please feel free to contact me.

Very truly yours,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

JUL 29 1993

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

06-Aug-1991

ATTN SUE BAUMAISTER
CLASSIFIED ADS
LEWISTON MORNING TRIBUNE
505 C STREET
LEWISTON ID 83501

Re: Re-schedule of publication of legal ad, 47-08271 (J.M. Miller Enterprises, Inc.)

Dear Sue:

Enclosed please find a paper copy containing the modifications to the legal ad that we discussed by telephone on this date concerning the above referenced water right number.

It is my understanding that the publication scheduled for 8/8/91 was cancelled and re-scheduled for re-publication on 8/15 & 8/22/91.

If you have any questions, please feel free to contact me.

Very truly yours,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

NOV 29 199

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

06-Aug-1991

ATTN DONNA CALHOON
IDAHO STATESMAN
PO BOX 40
BOISE ID 83707

Re: Re-schedule of publication of legal ad, 47-08271 (J.M. Miller Enterprises, Inc.)

Dear Donna:

Enclosed please find a paper copy containing the modifications to the legal ad that we discussed by telephone on this date concerning the above referenced water right number.

It is my understanding that the publication scheduled for 8/8/91 was cancelled and re-scheduled for re-publication on 8/15 & 8/22/91.

If you have any questions, please feel free to contact me.

Very truly yours,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

NOV 29 1993

MEMORANDUM

TO: File 47-08271

FROM: Mary Baldwin, Sec/Office Coordinator
Southern Region

DATE: 06-Aug-1991

SUBJECT: State wide advertising

I received a telephone call on this date from the Lewiston Morning Tribune who had received the legal advertising scheduled for 8/1 & 8/8/91.

Subsequent telephone calls were made to the Idaho Statesman, Times News and Post Register to cancel second publication on 8/8/91. All three verified that they had received their correspondence on or before July 29, 1991 so appears that an unique problem occurred at the Lewiston Morning Tribune.

Publication was re-scheduled for 8/15 & 8/22 in the Idaho Statesman, Post Register, Lewiston Morning Tribune, and Times News with the final date for submitting timely protests on September 2, 1991.

Copies of the modified legal ad was faxed to each of the newspapers on this date with follow-up paper copies mailed on this date also.

NOV 25 1992

MESSAGE CONFIRMATION
TRANSMISSION

RECEIVED
NOV 29 1993

AUG-06-'91 TUE 11:06

TERM ID: IDWP SOUTHERN
TEL NO.: 1-208-733-8093

P-9999

NO.	DATE	ST. TIME	TOTAL TIME	ABBR/SBD	ID	DEPT CODE	#PGS	
329	08-06	11:05	00°01'29		208 377 6309		OK- 2	NG- 0

S.D. Stevens
Donna Calhoun

MICROFILMED

NOV 2 9 1993

MESSAGE CONFIRMATION
TRANSMISSION

AUG-06-'91 TUE 11:03

TERM ID: IDWR SOUTHERN P-9999
TEL NO.: 1-208-733-8093

NO.	DATE	ST. TIME	TOTAL TIME	ABBR/SBD	ID	DEPT CODE	#PGS	
328	08-06	11:01	00°01'28		2085293142		OK- 2	NG- 0

Post Register
Shelley

MESSAGE CONFIRMATION
TRANSMISSION

MICROFILMED

NOV 29 1993 AUG-06-'91 TUE 10:56

TERM ID: IDWR SOUTHERN P-9999
TEL NO.: 1-208-733-8093

NO.	DATE	ST. TIME	TOTAL TIME	ABBR/SBD	ID	DEPT CODE	#PGS	
327	08-06	10:54	00°01'27		208 746 7341		OK- 2	NG- 0

ADJUSTED TRIBUNE
SUB BOUNDARY

MESSAGE CONFIRMATION
TRANSMISSION

[illegible] TUE 10:33

TERM ID: IDWR SOUTHERN P-9999
TEL NO.: 1-208-733-8095

MICROFILMED
NOV 29 1993

NO.	DATE	ST. TIME	TOTAL TIME	ABBR/SBD	ID	DEPT CODE	#PGS	
325	08-06	10:31	00°01'29		208 734 5538		OK- 2	NG- 0

Tmos [illegible]
[illegible]

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) ~~736-3075~~ 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

TRANSMITTAL COVER SHEET

OMNIFAX G66
Phone No.: (208) 736-3037

TO: _____ FROM: Mary Baldwin
Sec / Office Coordinator

DOCUMENT DESCRIPTION: Changes on legal per our T/C on 8/6/93 Fax's!

TOTAL PAGES SENT: 2

CONTACT: _____
(NAME OF SENDER)

Please consider this document as a billing statement. The charge for your FAX copies is $ -0-. Please remit to the above address.

Charges: One (1) free copy per request, cover sheet not counted. Two (2) or more copies per request will cost $.25 per page. ($.50 minimum)

NOV 29 1993

S. te of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

18-Jul-1991

ATTN JAMES M MILLER PRESIDENT
J M MILLER ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 83301

Re: Application for Permit No. 47-08271

Dear Mr. Miller:

We regret to inform you that due to a clerical error, the above referenced application was not published statewide as required by Rule 4,2,1,2. of the Department's Rules and Regulations for Water Appropriation for applications in excess of 10 cfs.

Therefore, notice of the application will appear in the Idaho Statesman, Post Register, Lewiston Morning Tribune, and Times News on 8/1 & 8/8/91. A period of ten days following the second publication will be allowed for the submittal of protests.

If the application is protested you will be notified and sent a copy of all protests filed.

We apologize for any inconvenience this delay may have caused you. If you have any questions or if this office can be of further assistance, please feel free to contact us.

Very truly yours,

Mary Baldwin
Secretary/Office Coordinator

RECEIVED
NOV 29 1993

NOTICE OF APPLICATION FOR TRUST WATER RIGHT

47-08271

MILLER ENTERPRISES INC., J. M.
P.O. BOX 595
TWIN FALLS, ID 83303

Source: UNNAMED STREAM Tributary: SNAKE RIVER
Source: WASTE WATER Tributary: SNAKE RIVER

Diversion Pt: SESENE Sec 13 T 09S R 15E

Use: STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion: (20.000 CFS)

Date Filed: 4/24/ 1991

In: T09S R15E S13 NENE SENE

The permit(s) will be subject to all prior water rights. Protests must be filled with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before ~~AUGUST 19~~ Sept 2, 1991.

R. KEITH HIGGINSON, Director

Published 8/ ~~1~~ 15/1991 & 8/ ~~8~~ 22/1991

RELEASED
NOV 29 1993

S T A T E O F I D A H O
DEPARTMENT OF WATER RESOURCES
Southern Region
222 Shoshone Street East
Twin Falls, ID 83301
(208)734-3578

JULY 17, 1991

TIMES NEWS
P.O. BOX 548
TWIN FALLS, ID 83303-548

Gentlemen:

Enclosed you will find a legal notice which we wish to have published on the dates indicated (once a week for two consecutive weekly issues) in your newspaper. If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Your cooperation is appreciated.

Please send the affidavit of publication and publication billing to this office before AUGUST 19, 1991.

Yours truly,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

NOV 29 1993

S T A T E O F I D A H O
DEPARTMENT OF WATER RESOURCES
Southern Region
222 Shoshone Street East
Twin Falls, ID 83301
(208)734-3578

JULY 17, 1991

IDAHO STATESMAN, LEGAL ADS
BOX 40
BOISE, ID 83707

Gentlemen:

Enclosed you will find a legal notice which we wish to have published on the dates indicated (once a week for two consecutive weekly issues) in your newspaper. If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Your cooperation is appreciated.

Please send the affidavit of publication and publication billing to this office before AUGUST 19, 1991.

Yours truly,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

NOV 29 1991

S T A T E O F I D A H O
DEPARTMENT OF WATER RESOURCES
Southern Region
222 Shoshone Street East
Twin Falls, ID 83301
(208)734-3578

JULY 17, 1991

LEWISTON MORNING TRIBUNE
505 C STREET
LEWISTON, ID 83501

Gentlemen:

Enclosed you will find a legal notice which we wish to have published on the dates indicated (once a week for two consecutive weekly issues) in your newspaper. If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Your cooperation is appreciated.

Please send the affidavit of publication and publication billing to this office before AUGUST 19, 1991.

Yours truly,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

NOV 19 1993

S T A T E O F I D A H O
DEPARTMENT OF WATER RESOURCES
Southern Region
222 Shoshone Street East
Twin Falls, ID 83301
(208)734-3578

JULY 17, 1991

POST REGISTER
P.O. BOX 1800
IDAHO FALLS, ID 83402

Gentlemen:

Enclosed you will find a legal notice which we wish to have published on the dates indicated (once a week for two consecutive weekly issues) in your newspaper. If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Your cooperation is appreciated.

Please send the affidavit of publication and publication billing to this office before AUGUST 19, 1991.

Yours truly,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

NOV 29 1993

NOTICE OF APPLICATION FOR WATER RIGHT

The Following application(s) have been filed to appropriate the public waters of the State of Idaho:

47-08271
MILLER ENTERPRISES INC., J.M.
P.O. BOX 806
TWIN FALLS, ID 83303
Source: UNNAMED STREAM
Tributary: SNAKE RIVER
Source: WASTE WATER
Tributary: SNAKE RIVER
Diversion Pt: SESENE Sec 13 T 09S R 15E
Use: STOCKWATER (.050 CFS)
FISH PROPAGATION (4.500 CFS)
POWER (20.000 CFS)
Total Diversion (20.000 CFS)

[redacted]

[redacted] with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before JULY 9, 1991.

R. KEITH HIGGINSON
Director

PUBLISH: Thursday, June 20 and 27, 1991.

Affidavit of Publication

№ 22522

RECEIVED
JUL 01 1991
Department of Water Resources
Southern Region

STATE OF IDAHO }
COUNTY OF TWIN FALLS } ss.

I, Linda Coggs McGuire being first duly sworn upon oath, depose and say that I am Legal Clerk of the TIMES-NEWS, published daily, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for Two consecutive Weeks, commencing with the issue dated June 20, 1991, and ending with the issue dated June 27, 1991.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 31, 1978, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO
COUNTY OF TWIN FALLS

On this 27 day of June in the year of 1991, before me, a Notary Public, personally appeared Linda Coggs McGuire, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Notary Public for Idaho
Residing at Twin Falls, Id
My commission expires: 8-8-96

OK MB 7-3-91

NOV 29 1993

CLASSIFIED ADVERTISING INVOICE

TWIN FALLS TIMES NEWS
132 3RD ST N.
P. O. BOX 548
TWIN FALLS ID 83303

Forwarding & address correction requested

INVOICE NO.	CLASS	BILLING DATE
22522	343	07/01/91

INDEXING TERM
47-13271

START DATE	TELEPHONE NO.
6/20/91	734-5575

LINES/WORDS	TIMES	RATE	NET AMOUNT	GROSS AMOUNT
44	2		31.68	31.68
AFFIDAVI			2.00	2.00
PAY THIS AMOUNT ▶			33.68	33.68

GROSS AMT DUE AFTER 07/13

RECEIVED
JUL 01 1991
Department of Water Resources
Eastern Region Office

RETURN THIS PORTION WITH YOUR REMITTANCE

22522 343

THIS SPACE FOR ADDRESS ONLY

IDAHO WATER RESOURCES
222 SHOSHONE ST E
TWIN FALLS ID
83301

OK MB 7-3-91

MICROFILMED
NOV 29 1993

ate of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 734-3578

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

13-Jun-1991

JAMES M MILLER
J M MILLER ENTERPRISES INC
PO BOX 595
TWIN FALLS ID 83301

Re: Application for Permit No. 47-08271

Dear Applicant (s):

The Department of Water Resources acknowledges receipt of your water right application for permit. The application has been assigned the above referenced identification number. Please refer to this number in all further correspondence.

This office will be advertising the application in the Times News on 6/20 & 6/27/91. A period of ten days following the second publication will be allowed for the submittal of protests.

If the application is protested you will be sent a copy of the protest. The protest must be resolved before the application is approved or denied. If the protest is not resolved voluntarily, this Department will conduct a conference and/or hearing on the matter.

If the application is not protested, it will be forwarded to our State Office in about five weeks. State office personnel will conduct a complete review prior to final processing of the application and will notify you of the outcome of this review. When a permit is issued, you will be sent a copy. A typical processing time for an unprotested application is about eight weeks.

Please feel free to contact this office if you have any questions regarding this procedure.

Very truly yours,

Gary Funderburg
Sr. Water Resource Agent

GF:MB

RECEIVED
NOV 29 1993

NOTICE OF APPLICATION FOR WATER RIGHT

The Following application(s) have been filed to appropriate the public waters of the State of Idaho:

47-08271

MILLER ENTERPRISES INC., J. M.
P.O. BOX 595
TWIN FALLS, ID 83303

Source: UNNAMED STREAM — Tributary: SNAKE RIVER
Source: WASTE WATER — Tributary: SNAKE RIVER

Diversion Pt: SESENE Sec 13 T 09S R 15E

Use:		
	STOCKWATER	(.050 CFS)
	FISH PROPAGATION	(4.500 CFS)
	POWER	(20.000 CFS)
	Total Diversion:	(20.000 CFS)

Date Filed: 4/24/ 1991

In: T09S R15E S13 NENE SENE

The permit(s) will be subject to all prior water rights. Protests must be filled with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, Idaho 83301 on or before JULY 9, 1991.

R. KEITH HIGGINSON, Director

Published 6/20/1991 & 6/27/1991

RECEIVED
NOV 2 9 1993

S T A T E O F I D A H O
DEPARTMENT OF WATER RESOURCES
Southern Region
222 Shoshone Street East
Twin Falls, ID 83301
(208)734-3578

JUNE 12, 1991

TIMES NEWS
P.O. BOX 548
TWIN FALLS, ID 83303-548

Gentlemen:

Enclosed you will find a legal notice which we wish to have published on the dates indicated (once a week for two consecutive weekly issues) in your newspaper. If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Your cooperation is appreciated.

Please send the affidavit of publication and publication billing to this office before JULY 9, 1991.

Yours truly,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

J. M. Miller Enterprises, Inc.

P.O. Box 595 • Twin Falls, Idaho 83303
Phone (208) 622-7215

April 15, 1991

Mr. James E. Stanton
Senior Water Resources Agent
Southern Regional Office
State of Idaho
Dept of Water Resources
222 Shoshone Street East
Twin Falls, ID 83301

RECEIVED

APR 24 1991

Department of Water Resources
Southern Region Office

RE: Corporate Officer and Address

Dear Mr. Stanton:

This is to certify that I am the President and the only officer and stockholder of J.M. Miller Enterprises, Inc., a company incorporated in and authorized to do business in the State of Idaho.

My mailing address as the only officer and stockholder is the same as that appearing in the above letterhead: Box 595, Twin Falls ID 83303.

Cordially,

James M. Miller

James M. Miller, President

47-08271

J. M. Miller Enterprises, Inc.

P.O. Box 595 • Twin Falls, Idaho 83303
Phone (208) 622-7215

April 15, 1991

Mr. James E. Stanton
Senior Water Resources Agent
Southern Regional Office
State of Idaho
Dept of Water Resources
222 Shoshone Street East
Twin Falls, ID 83301

RECEIVED

APR 24 1991

Department of Water Resources
Southern Region Office

RE: Submission of Application for Permit

Dear Mr. Stanton,

Enclosed please find:

1. An Application for Permit.
2. Address of Corporate Officer Letter.
3. Application Fee in the amount of Four Hundred Twenty-five dollars ($425.00).

Not included is the "Affidavit for Water Rights to be Used for Power Purposes" which is being processed through Twin Falls Canal Company. This will be provided to you by me within a few weeks.

Thank you for the assistance you provided me in your office as I was trying to gather the necessary information for this application.

Questions may be directly to me by mail or at the phone number listed above. I could also come into your office if you have further questions.

Cordially,

James M. Miller

James M. Miller, President

NOV 29 1993

47-08271

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

APPLICATION FOR LICENSE FOR MINOR PROJECT

(PURSUANT TO PRELIMINARY PERMIT #11060-000-IDAHO)

DRAFT 4/93

SAHKO HYDROELECTRIC PROJECT

TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

^, 1993

NOV 29 1993

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

APPLICATION FOR LICENSE FOR MINOR PROJECT

(PURSUANT TO PRELIMINARY PERMIT #11060-000-IDAHO)

DRAFT 4/93

SAHKO HYDROELECTRIC PROJECT

TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

^, 1993

RECEIVED
APR 26 1993
Department of Water Resources
Southern Region Office

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- Wildlife Resources
- Water Quality and Quantity
- Land Use
- Recreational Uses
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1 - Request for Water Quality Certification
2 - Records of Consultation with Agencies

DRAFT 4/93

4.61 (b)

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

APPLICATION FOR LICENSE FOR A MINOR WATER POWER PROJECT

(1) J. M. Miller Enterprises, Inc. (hereinafter, "Applicant") applies to the Federal Energy Regulatory Commission for a license for the Sahko water power project as described hereinafter.

This application for license is being filed pursuant to Preliminary Permit (Project No. 11060-000-Idaho) issued June 18, 1991.

(2) The location of the project is:

State: Idaho
County: Twin Falls
Nearby Town: Filer
Stream: Kastelu Drain, an irrigation flow return

(3) The exact name, address and telephone number of the Applicant are:

J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83303

Tel.: (208) 622-7215

(4) The exact name, address and telephone number of each person authorized to act as agent for the Applicant in this application are:

D. W. "Bill" Block, P.E.
J-U-B Engineers, Inc.
800 Falls Ave.
Twin Falls, ID 83301

Tel.: (208) 733-2414

DRAFT 4/98

(5)The Applicant is a corporation organized under the laws of the State of Idaho and is not claiming preference under section 7(a) of the Federal Power Act.

(6)(i) The statutory or regulatory requirements of the state in which the project would be located that affect the project as proposed with respect to the bed and banks and the appropriation, diversion and use of water for power purposes, and with respect to the right to engage in the business of developing, transmitting and distributing power and in any other business necessary to accomplish the purposes of the license under the Federal Power Act are:

A. Title 42, Chapters 1 and 2, Idaho Code, addresses the appropriation of water for beneficial use within the State of Idaho. The right to use such water is gained through application to the Idaho Department of Water Resources (IDWR) for a water appropriation permit. On issuance of permit and subsequent demonstrated beneficial use of the water, a vested water right (license) for power generation is issued.

B. Title 36, Chapter 9, Idaho Code, deals with the protection of fish in Idaho waters and Section 36-906 provides for a requirement of suitable fish screening devices and fish-ways to be constructed at all power sites to specifications of the Idaho Department of Fish and Game (IDFG). Given the project's location and character as an irrigation drain, discussions with IDFG will identify whether screens will be required.

C. Title 50, Chapter 11, Idaho Code, grants to Idaho counties the right to establish Planning and Zoning Commissions and grants regulatory authority to counties to govern building standards. A conditional use permit must be obtained from Twin Falls County prior to construction.

(ii) Steps which the Applicant has taken or plans to take to comply with the statutory or regulatory requirements cited above are:

A. Applicant filed with the Idaho Dept. of Water Resources an application to appropriate water for power production and other uses (#47-08271, priority 4/24/91). The application is pending, no objections are on file, and approval is expected.

B. Discussions with IDFG staff (pers. comm. W. Reid, 4/28/92) indicate that because of the stream's character--as an irrigation waste-water drain--and the project's location at the Snake River canyon's rim, fish screens will not be required.

C. At the appropriate time during the project's design, Applicant will apply to Twin Falls County Planning and Zoning Commission for necessary construction permits.

D. Applicant has requested a Water Quality Certification from the Idaho Department of Health and Welfare, Division of Environment; a copy of the request is included as an Appendix.

DRAFT 4/93

7) **BRIEF PROJECT DESCRIPTION**

Location of Proposed Facilities

Embankment: SE 1/4 of NE 1/4, Section 13, T. 9S, R. 15E, B.M.
Powerhouse: NE 1/4 of NE 1/4, Section 13, T. 9S, R. 15E, B.M.

The proposed project will develop energy potential at the Kastelu drain, an irrigation water return approximately three miles northwest of Filer, Idaho.

The proposed project will entail the construction of:

a) an earth-fill embankment containing:

- *i)* an overflow spillway; and
- *ii)* a bypass pipe;

b) an earth-fill embankment, downstream of embankment *a)* above, containing:

i) a concrete intake structure protected by trash racks;
ii) an emergency overflow spillway; and
iii) a bypass pipe;

c) a gated earthen ditch, bypassing the embankment *a)* above;

d) a buried steel penstock;

e) a masonry-block powerhouse containing:

i) a single turbine/generator set;
ii valves, controls and appurtenances;

f) an outdoor transformer on a concrete pad;

g) an underground length of three-phase, primary transmission lines extending from the powerhouse to the transformer;

h) a switchyard enclosing a dead-end structure;

i) a new section of overhead, three-phase transmission lines connecting to Idaho Power Company-owned facilities.

Materials, dimensions, and capacities are identified in Exhibit A attached hereto.

(7)(i) Proposed installed generating capacity: 500 kilowatts (kW)

(ii) Check appropriate box:

/ / Existing dam

/ x / Unconstructed dam

/ / Existing dam, major modified project

(Note: Given the proposed embankments' dimensions, the structures are not considered dams in the context of the rules and regulations of the Idaho Dept. of Water Resources)

DRAFT 4/93

(8) Lands of the United States affected (shown on Exhibit G):

		Name	Acres
(i)	National Forest		0
(ii)	Indian Reservation		0
(iii)	Public Lands under Jurisdiction of:	NA	0
(iv)	Other	NA	0
(v)	Total U.S. Lands		0

(vi) Check appropriate box:

/ x / Surveyed land

/ / Unsurveyed land

DRAFT 4/93

(9) Construction of the project is planned to start within 12 months of license issuance, subject to compliance with pre-construction articles of license, and is planned to be completed within 24 months from license issuance or within 24 months of compliance with pre-construction articles of license.

4.32(a)(1)

STATEMENT OF PROPRIETARY INTEREST

All real property within the project boundary is owned by:

J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83303

All proprietary interests necessary for said development, construction and operation shall be held and maintained by the Applicant.

DRAFT 4/93

4.32(a)(2)(i)

IDENTIFICATION OF COUNTIES IN WHICH THE PROJECT WOULD BE LOCATED

Twin Falls County
P.O. Box 126
425 Shoshone N.
Twin Falls, Idaho 83303

Attn.: County Clerk

Tel.: (208) 736-4000

4.32(a)(2)(ii)

POLITICAL SUBDIVISIONS IN WHICH THE PROJECT WOULD BE LOCATED

The project is located in the outlying township of:

City of Filer
300 Main St.
Filer, ID 83328

4.32(a)(2)(iii)

IDENTIFICATION OF IRRIGATION OR DRAINAGE DISTRICTS, OR SIMILAR SPECIAL PURPOSE POLITICAL SUBDIVISIONS IN WHICH THE PROJECT WOULD BE LOCATED, OR WHICH OWN, OPERATE AND MAINTAIN FACILITIES THAT WOULD BE USED BY THE PROJECT

None

DRAFT 4/93

4.32(a)(2)(iv)

OTHER POLITICAL SUBDIVISIONS IN THE PROJECT'S GENERAL AREA MOST LIKELY TO BE INTERESTED IN, OR AFFECTED BY, THE PROJECT

None

4.32(a)(2)(v)

INDIAN TRIBES AFFECTED BY THE PROJECT

None

4.32(a)(3)(i)

STATEMENT OF NOTIFICATION

Applicant or its agents (including, but not limited to, its agent in this Application proceeding) has made, either at the time of or before the filing of this Application, a good faith effort to give notification by certified mail of the filing of this Application for License to:

(A) Every property owner of record having interest in the property within the bounds of the project; and

(B) All local political subdivisions having a population of at least 5,000 people and which are located within 15 miles of the project; and

(C) all Federal, state and local agencies that Applicant believes would likely be interested in or affected by this Application.

Included are:

City Clerk
City of Twin Falls
321 Second Ave. East
P.O. Box 1907
Twin Falls, ID 83301 Tel.: (208) 736-2271

and

(See Service List)

DRAFT 4/03

4.32(a)(3)(ii)

SAMPLE LETTER OF NOTIFICATION

(Date)

(Addressee)

Re: Notice of Filing

Dear (Addressee):

Pursuant to the Code of Federal Regulations (CFR), Title 18, Section 4.32(a)(3)(i), and on behalf of J. M. Miller Enterprises, Inc., this is to advise you that an Application for License for the proposed Sahko Hydroelectric Project is being filed with the Federal Energy Regulatory Commission.

The exact name, address and telephone number of the Applicant are:

J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83303

Tel.: (208) 622-7215

Enclosed is a copy of the Exhibit "G" (map of the project) which is part of the Application for License being filed.

Sincerely,

(Signatory)

DRAFT 4/93

4.32(a)(4)(i),(ii)

VERIFICATION

This Application for License for the Sahko Hydroelectric Project, a minor water power project, is executed in the

State of Idaho)
County of Twin Falls)

by: J. M. Miller Enterprises, Inc., Applicant

by: D. W. Block, Applicant's Agent

J-U-B Engineers, Inc.
800 Falls Ave.
Twin Falls, ID 83301

being first duly sworn, deposes and says that he is agent for the above-named Applicant; that the contents of this Application for License for the Sahko Hydroelectric Project, a minor water power project, are true to the best of his knowledge or belief.

by: _____
D. W. Block

Subscribed and sworn to before me, a Notary Public of the State of Idaho this _____ day of _____,1992.

by: _____ /SEAL/
Notary Public

(My commission expires _____)

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4.32(b)(1)

CERTIFICATE OF SERVICE

Copies of the forgoing Application for License have been served upon the following parties:

Secretary
Federal Energy Regulatory
Commission
825 N. Capitol St. NE
Washington, DC 204226

Mr. G. Dean Hilliard
Regulatory Branch
Army Corps of Engineers
Walla Walla District
Walla Walla, WA 99362-9265

Director
Office of Hydropower Licensing
Federal Energy Regulatory
Commission
801 First St. NE, Rm. 1129
Washington, DC 20426

Mr. Warren Mc Fall
Idaho Operations Office
Environmental Protection Office
420 W. Washington St.
Boise, ID 83702

Regional Engineer
Portland Regional Office
Federal Energy Regulatory
Commission
1120 SW Fifth Ave., Ste. 1340
Portland, OR 97204

Chief
Interagency Archaeological Services
National Park Service
600 Harrison Street
Suite 600
San Francisco, CA 94107

Mr. Einar Wold, Division Chief
National Marine Fisheries Service
Env. & Tech. Services Division
1002 NE Holladay St.
Room 620
Portland, OR 97232

Mr. Charles Lobdell
Field Supervisor
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road, Rm. 576
Boise, ID 83705

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Mr. Will Reid
Fisheries Program Coordinator
Idaho Dept. of Fish & Game
600 S. Walnut
Box 25
Boise, ID 83707

Mr. Tim Litke
Regional Administrator
Idaho Dept. of Health and Welfare
Division of Environmental Quality
P.O. Box 1626
Twin Falls, ID 83303-1626

Mr. Carl Nellis, Supervisor
Region 4
Idaho Dept. of Fish & Game
868 E. Main St.
Jerome, ID 83338

Ms. Yvonne Ferrell, Director
Idaho Dept. of Parks and Recreation
Statehouse Mail
Boise, ID 83720

Mr. Tom Green, Dpty. SHPO
Idaho State Historical Society
210 Main St.
Boise, ID 83702

Mr. Lee Taylor
Planning and Zoning Administrator
County of Twin Falls
246 3rd Ave. East
Twin Falls, Idaho 83301

Mr. Loren Holmes, District Manager
Idaho Dept. of Water Resources
220 Shoshone St. East
Twin Falls, ID 83301

Librarian
Filer City Library
219 S. Main St.
Filer, Idaho 83328

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4.32(b)(3)(i)

AVAILABILITY OF INFORMATION

A copy of this application shall be kept available to the public at the following location:

Filer City Library
219 Main St.
Filer, ID 83328

4.32(b)(3)(ii)

INFORMATION AVAILABILITY RE: NATIONAL HISTORIC REGISTER ELIGIBILITY

Disclosures and references to archaeological and/or Native American cultural sites, if any, have and/or shall be deleted in copies of the application which Applicant makes available to the public.

4.32(b)(4)(i)-(iv), (5)

AVAILABILITY OF INFORMATION TO THE PUBLIC

In addition to the location previously mentioned, copies of the application may also be available at the addresses of the governmental agencies identified on the Service List herein; and, a copy of the application may be obtained through the Applicant after reimbursement of reasonable costs of reproduction.

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4.32(b)(6)-(9)

PUBLICATION OF NOTICE OF FILING

Within 14 days after filing this application for license with the Federal Energy Regulatory Commission, Applicant will cause to be published a notice in the local newspaper of the Twin Falls area, which notice shall inform the public of this application filing, to-wit:

NOTICE

Pursuant to CFR 18, 4.32 (b)(6), take notice that an application for license for the proposed Sahko Hydroelectric Project, a minor water power project, was filed with the Federal Energy Regulatory Commission (FERC) on (*date inserted*). The application was filed by J. M. Miller Enterprises, whose address is P.O. Box 595, Twin Falls, Idaho 83303. The project is located on the Kastelu drain, an irrigation water return, and will include the new construction of 1) Two earth-fill embankments, each with an overflow spillway and a bypass pipe; 2) a concrete intake structure; 3) a steel penstock; 4) a masonry-block powerhouse enclosing a turbine-generator and appurtenances; 5) a tailrace channel; 6) a step-up transformer on a concrete pad; 7) an enclosed switchyard; and 8) three-phase primary transmission lines to connect with Idaho Power Company-owned lines.

Proposed installed generating capacity is 500 kilowatts (kW). It is intended to sell the energy generated by the project to the Idaho Power Company.

A copy of the application is available for public inspection at the Filer City Library. A copy of the application can also be obtained from the Applicant's Agent after reimbursement for reasonable costs for reproduction. Any additional scientific studies requested by any party must be so requested by (insert 45 days from date of filing), and such request must be filed with the FERC in accordance with its regulations; and, a copy must be sent to the Applicant. The FERC will publish further notice soliciting public participation if the application is found acceptable for filing.

(Publication Date: _____)

EXHIBIT A

DESCRIPTION OF THE PROJECT

AND

PROPOSED MODE OF OPERATION

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4.61(c)

EXHIBIT A

DESCRIPTION OF PROJECT AND PROPOSED MODE OF OPERATION

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(1) Project Data

(i)	Number of Generating Units	One
	Auxiliary Units	None
	Capacity of Unit	500 kW
	Total Installed Capacity	500 kW
	Provisions for Future Units	None
(ii)	Hydraulic Turbine Type	Pelton (4 nozzle)
(iii)	Mode of Operation	Run-of-ditch
(iv)	Estimated average annual energy generation	1,178,000 kWh
(v)	Estimated average head	328 ft.
(vi)	Intake Forebay	
	Surface Area	0.6 acres
	Volume	3 acre-ft.
	Normal Surface Elevation	3390 ft. msl
(vii)	Sedimentation Collection Basin	
	Surface Area	0.6 acres
	Volume	4 acre-ft.
	Normal Surface Elevation	3393.5 msl
(viii)	Estimated hydraulic capacity of plant (cfs)	20 cfs

Exhibit A
(cont'd.)

(ix) Sizes, Capacities, and Construction Materials

Embankments	Forebay	Sediment Collection
Construction	Earth-fill	Earth-fill
Elevation (stream invert)	3381 ft. msl	3387.5 ft. msl
Elevation (crest)	3394.5 ft. msl	3397 ft. msl
Length (crest)	110 ft.	80 ft.
Width (crest)	12 ft.	12 ft.
Slope (upstream)	3:1	3:1
Slope (downstream)	2:1	2:1
Intake Structure		
Construction		Concrete
Elevation (floor)		3384 ft. msl
Dimensions (w x l x h)		8 ft. x 10 ft. x 10.5ft.
Pipeline/Penstock		
Material		Steel
Diameter		24 in.
Length		1,950 ft.
Powerhouse		
Construction		Masonry-block
Elevation (floor)		3054 ft. msl
Dimensions (w x l)		25 ft. x 50 ft.
Tailrace		
Construction		Rock Rip rap
Elevation (Tailwater)		3051 ft. msl
Dimensions (w x l x h)		6 ft. x 3 ft. x 30 ft.(l)

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Exhibit A
(cont'd.)

	Switchyard	
	Dimensions	12 ft. x 12 ft.
	Primary Transmission	
	Voltage	34.5 kV
	Length	2,000 ft.
(x)	Estimated Project Cost	$390,000 (1992)

(2) Purpose of Project:

Irrigation water supplement, develop renewable-resource energy for sale to the Idaho Power Company in order to help defray electrical costs of proposed powered irrigation system.

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EXHIBIT E

ENVIRONMENTAL REPORT

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4/93

4.61(d)

EXHIBIT E

ENVIRONMENTAL REPORT

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OVERVIEW

The proposed Sahko hydroelectric project will develop the energy potential of irrigation return flows at the so-called Kastelu drain, located approximately three miles northwest of Filer, in Twin Falls County, Idaho. The property within the project boundary is privately-owned, undeveloped and is currently used for cattle-grazing.

The project reach is generally characterized as a draw which directs precipitation and irrigation return flows to the Snake River canyon's south rim. Flows then fall through a steep ravine, which transitions to a relatively flat area prior to the drain's confluence with the Snake River, approximately 0.5 miles beyond the project boundary.

It is proposed to construct an earth-fill embankment at ditch invert elevation 3381 ft. mean sea level (msl). Crest height will be at 3394.5 ft. msl, and the embankment's length along the crest axis will be 110 ft. Upstream and downstream slopes are designed at 3:1 (run:rise) and 2:1, respectively.

The embankment will incorporate a concrete penstock intake structure near its center. The intake structure's floor will be at elevation 3384 ft. msl; and, the box-shaped structure will measure 8.0 ft. wide (along the embankment's axis), 10.0 ft. into the embankment,10.5 ft. deep, and will incorporate protective trash racks.

The embankment will also incorporate a concrete overflow-spillway channel which will direct flows to a riprapped surface at the embankment's downstream toe, and into the ditch channel.

A second earth-fill embankment will be constructed upstream of the above-referenced embankment. This structure, however, will be installed for the purpose of collecting water-borne sediment from agricultural land upstream of the project. The embankment will be constructed from ditch invert elevation 3387.5 msl, and have a crest height to elevation 3397 msl. Crest width will be 12 ft. and embankment length along its axis will be 80 ft. Upstream and downstream slopes are designed at 3:1 (run:rise) and 2:1, respectively. Upstream and downstream slopes subject to water action will be protected with rip rap over a fabric liner.

The upstream embankment will incorporate a four-foot high, 14-foot wide concrete-capped spillway allowing passage of power flows to the downstream forebay. A check-weir will be installed in the spillway for flow measurement. The spillway's downstream face will be riprapped.

A bypass pipe will be buried through the embankment in order to allow maximum de-watering behind the structure for sediment removal.

In order to prevent irrigation flows or natural run-off from entering the upstream basin during the sediment removal process (see Exhibit E), a ditch approximately two ft. wide, 1.5 ft. deep and 500 ft. in length will parallel the basin to carry flows to the downstream forebay. The bypass ditch, with an entrance invert at 3393 ft. msl, will be gated to divert flows into the basin during normal operations. During sediment removal, the gate will be opened and, by virtue of its lower elevation, will convey flows past the basin to the downstream forebay.

From the downstream embankment impounding the forebay, a single, steel, 24 in. diameter pipe will be buried approximately 700 ft. to its intersection with an existing road accessing the canyon bottom. The penstock will under-cross the road and be buried along the descending road's right side for a distance of approximately 610 ft.. At a bend in the road, the pipe will then under-cross the road again and exit at a point where pipe alignment will represent the shortest run down the slope. From this point, the pipe will be buried an additional 640 ft. to the proposed powerhouse location.

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The power plant will include a masonry-block structure, approximately 25 ft. x 50 ft., to house the turbine-generator, controls and appurtenances, and provide room for maintenance and repairs.

A concrete pad for the transformer will be constructed adjacent to the powerhouse.

A tailrace channel approximately 6 ft. wide, 3 ft. deep and 30 ft. in length will be excavated from the powerhouse in order to return spent power flows to the irrigation drain. The entire length of the tailrace will be lined with rip rap to its juncture with the existing ditch.

A new section of overhead three-phase distribution lines will be brought to the site by the Idaho Power Company and will extend approximately 2,000 ft. within the project boundary from the power plant to the interconnect point. Any other improvements to Idaho Power Company's existing lines are outside the project boundary.

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4.61(d)(2)(i)

DESCRIPTION OF ENVIRONMENTAL SETTING

VEGETATIVE COVER

The proposed project is located in a semi-arid area which receives ten to twelve inches of precipitation annually. Vegetation types have been mapped, and are identified in the following Figure E-1. Natural vegetation in the upper reach is primarily sagebrush, cheatgrass, wheat grass, and other semi-arid species. The flat area through which the ditch extends is heavily grazed and is largely void of vegetation other than short-cropped grasses. Although the general area is void of trees, the upper reach contains approximately one dozen Russian olive trees and an apple tree.

No permanently established wetlands vegetation occurs in the upper reach, as the area is heavily grazed by livestock.

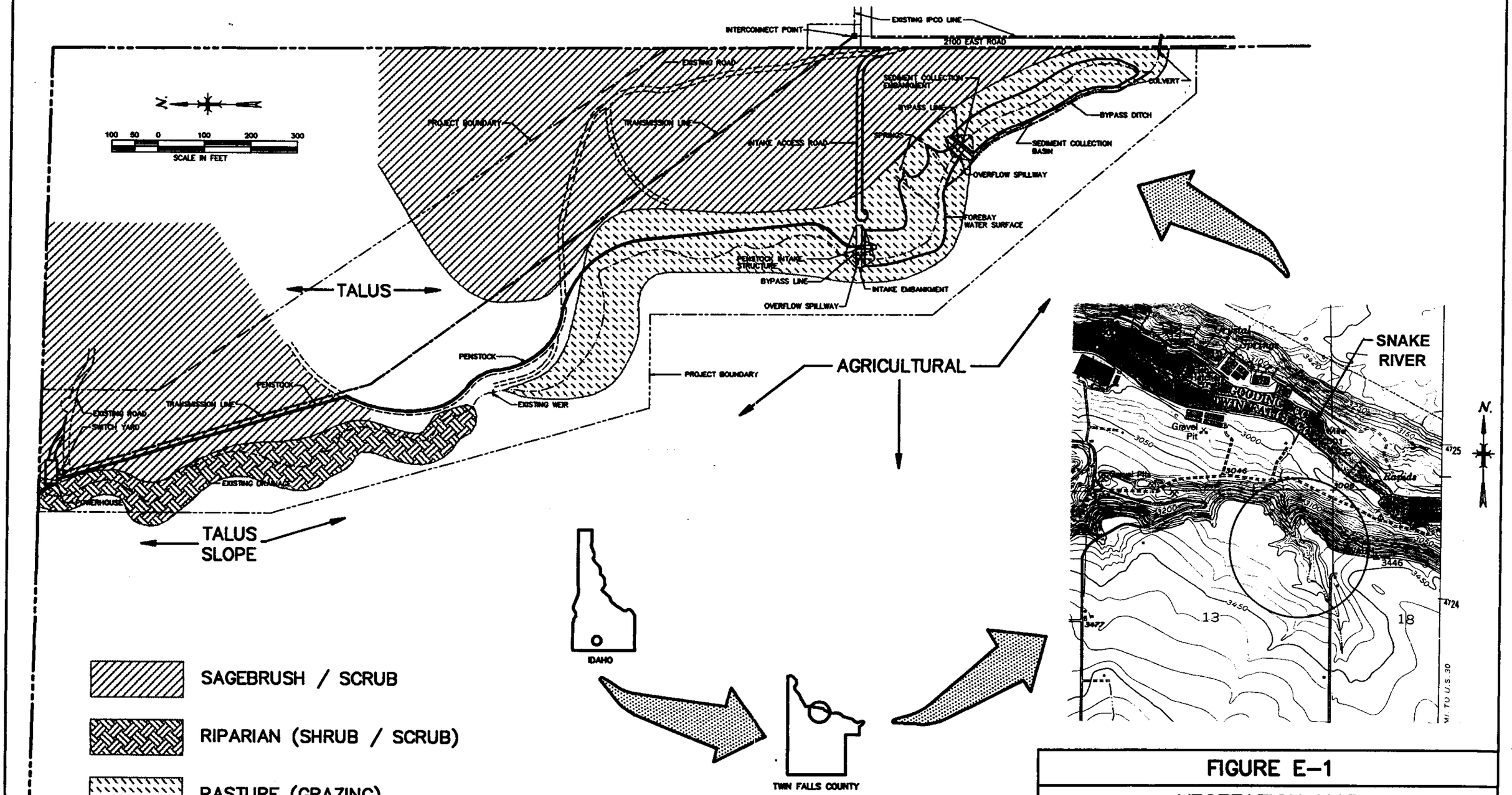


FIGURE E–1

VEGETATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

The lower reach of the project (ie, from the first significant fall of water through the ravine) contains thick stands of shrubs and brush, including wild rose, currant, rabbit brush, sagebrush and a variety of forbs. This area is characterized as the only significant existing riparian zone within the project boundary, and includes an approximate twenty foot width on either side of the ditch; however, beyond the zone, the vegetative cover abruptly transitions to desert sagebrush/cheatgrass.

The powerhouse site, once dominated by sagebrush, is largely void of vegetation, having been previously cleared by the owner to make way for a vehicle turn-around and picnic spot. The banks of the drain at this location contain various grasses and one apple tree.

Rare, Threatened and Endangered Species

Based upon walk-throughs and to the best of Applicant's knowledge, there are no rare, threatened and/or endangered species, or candidate species, of vegetation within the project boundary. Correspondence of the US Fish and Wildlife Service (FWS) similarly does not indicate the existence of any listed or proposed endangered and/or threatened species, or candidate species of vegetation.

FISHERY RESOURCES

This project is located past the last use of flows for agricultural irrigated cropland and the ditch does not contain or support a fishery.

WILDLIFE RESOURCES

The Snake River in the general vicinity is a wintering area for ducks and geese. The project area, however, presently contains no standing bodies of water, and is not considered to be of use to waterfowl.

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A variety of common non-game birds occupy the general area, and expected to also occur in the project area. These include the robin, magpie, several types of sparrow, killdeer, lark, crow, and starling.

Although ring-necked pheasant, mourning dove, Hungarian partridge, and quail are common to the general area, they probably do not range in the project's upper reach due to lack of vegetation or other cover; however, it is probable that the thick brush in the ravine affords some degree of cover to game-birds that may use the area.

Raptors are known to inhabit and use the general vicinity (a pair of golden eagles are known to inhabit the Crystal Springs Hydroelectric Project area one mile away in Cedar Draw Creek canyon). In that a variety of raptors range along the Snake River canyon and adjacent areas, it is not un-expected that raptors may occasionally pass through the project area; however, numerous trips to the site do not indicate any permanent habitation by raptors.

Animals which may be found and are known to exist within the project area include the jackrabbit, cottontail, marmot (rockchuck), ground squirrel, and mice. Other species common to the general vicinity and probably occurring in the project area include the badger, skunk, coyote, and perhaps mule deer.

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Rare, Threatened and Endangered Species

From on-site visits and observations, Applicant has encountered no rare, threatened and/or endangered species, or candidate species, of wildlife within the project boundary. Correspondence of the FWS disclosed the possibility of several species occurring in the general area of the Snake River canyon. The bald eagle probably ranges in the area during winter. With regard to several species of mollusks proposed for listing, the FWS acknowledges that due to the project's distance from the Snake River, no impacts are anticipated from project development.

WATER QUALITY/QUANTITY

Precipitation run-off, two springs within the project boundary, and irrigation returns comprise the flows available to the project. In that almost the entire flow provided during the period April - October is irrigation return, water quality is generally regarded as poor, primarily due to heavy suspended sediment concentrations of agricultural topsoil and fertilizers. The project area's watershed comprises 1,740 acres.

Numerous seeps also exist downstream of the proposed embankment. Several are located in the pasture area, and the left slope of the ravine contains several seeps which provide constant moisture to the riparian zone, and probably account for the more dense vegetation on the left side of the drain in the ravine portion of the project.

Ditch flow volumes have been monitored and recorded since January, 1991. Records are presented herein as Table E-1. The monitoring site was established at the location below the proposed embankment's downstream toe. Flows were monitored and recorded on a weekly basis. Results of the effort indicate that, during the non-irrigation season, virtually the entire flow in the ditch–little more than one cfs–was contributed by two springs near the upstream project boundary, and a smaller spring seeping from the ravine's left wall below the proposed embankment's location.

Based on the monitoring effort, flows available from all sources ranged from a low of 1.1 cfs during the winter to a recorded high of 17.5 cfs during the height of the irrigation season. Design flow for the hydroelectric project is twenty (20) cfs.

Two springs and several seeps in the project's upper reach mainly comprised the low flows during the winter. Individual contributions of the several seeps throughout the project reach were immeasurable; taken together, however, it is estimated the seeps unavailable to hydropower operations comprise between 0.1 and 0.25 cfs.

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TABLE E-1

1991 ACTUAL AVERAGE WEEKLY FLOW DATA
SAHKO HYDROELECTRIC PROJECT

Week of:		Flow - cfs
January	2	1.4
	8	1.4
	15	1.4
	22	1.4
	29	1.4
February	5	1.4
	12	1.4
	19	1.4
	26	1.4
March	5	1.1
	12	1.1
	19	1.1
	26	1.1
April	2	1.1
	9	1.1
	16	2.2
	23	8.0
	30	9.9
May	7	10.4
	14	8.9
	21	8.9
	28	11.9
June	4	13.0
	11	15.2
	18	16.4
	25	15.2
July	2	16.4
	9	17.5
	16	15.2
	23	15.2
	30	11.9
August	6	9.4
	13	8.9
	20	8.9
	27	8.9
September	3	8.9
	10	8.9
	17	8.9
	24	8.9
October	1	8.9
	8	8.9
	15	8.9
	22	7.1
	29	3.5
November	5	3.2
	12	3.2
	19	3.2
	26	3.2
December	3	2.5
	10	1.9
	17	1.4
	24	1.4
Annual Weekly Average		6.6 cfs

LAND USE

The general vicinity is rural, privately-owned, dominated by agriculture, and also provides for some amount of cattle-grazing. Some areas along the Snake River canyon rim remain undeveloped in a natural sagebrush-shrub environment.

The project area's upper reach is bounded on the west by agricultural farmland, and on the east by a sagebrush-shrub environment, used for cattle-grazing. The lower reach is a ravine, undeveloped, and largely un-utilized except for the existence of a gravel road accessing the bottom of the Snake river canyon.

RECREATIONAL USE

As mentioned, the general area is dominated by agriculture and may provide for seasonal game-bird hunting. Given its general character and private ownership, however, recreational pursuits are limited along south side of the Snake River canyon.

The project area similarly provides limited recreational opportunities. The land is privately owned, and contains no features affording recreational opportunities except for a current picnic spot at the powerhouse site.

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HISTORICAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES

The land surrounding the project area was first opened to agricultural use with the construction of water delivery canals and laterals in the early twentieth century. It is probable that homesteads were established throughout the general area, and it is possible that a sheep-herder type dwelling existed within the project area, probably near the two existing springs in the project's upper reach. Although surface examinations were made in the immediate area, no artifacts were found.

No other features of historic, archaeological or cultural import are known to exist in the project area.

SCENIC AND AESTHETIC RESOURCES

This assessment is based on observations of topography, vegetative cover, and existing developments in the project area.

Criteria used to ascertain the current aesthetic value in the area of the proposed project included:

- Observer position (generally from public areas)

The only public areas includes a county road accessing the project area. Given the area's terrain and the nearest road's proximity, the project will be largely unavailable to view by the public. Given the breadth of the Snake river canyon, wide vistas of view are available from the canyon's north rim, and the ravine is visible.

- Frequency of views

The project area is considered to have "low visibility" characteristics in that it is available to view only when the viewer is within the project boundary, or from the Snake River canyon's north rim, approximately 1.5 miles distant. Only a portion of the project area--the ravine--is available to view from the canyon floor.

- View distance

Foreground views are unavailable to the viewer unless the viewer's position is within the project boundary. Middleground and background views of the project are only available from the Snake River canyon's north rim, approximately 1.5 miles distant.

- Screening (by way of vegetation or land form)

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Absence of significant vegetation in the project's upper reach provides for limited screening of proposed structures, discussed below. Heavy vegetation in the ravine, however, preclude viewing irrigation flows cascading into the canyon, whether in positions affording foreground, Middleground, or background viewing.

- Landscape character

As mentioned, the area's topography prohibits nearby views of the project area, including the proposed impoundment area, and the bypass reach of the ravine, except for their view from the north rim of the Snake River canyon, approximately 1.5 miles distant.

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4.61(d)(2)(ii)

IMPACTS OF DEVELOPMENT, AND APPLICANT'S PROPOSED MEASURES TO PROTECT OR ENHANCE RESOURCES, OR MITIGATE ADVERSE IMPACTS

This section presents environmental impacts of the hydroelectric project, and identifies those measures proposed to be implemented to mitigate each potentially adverse impact. Any residual impacts remaining after mitigation are also identified.

VEGETATION RESOURCES

Project construction would result in the unavoidable loss of approximately one acre of grazing pasture and 0.5 acres of sagebrush/scrub in the areas of the proposed forebay and sedimentation collection basin.

With the following described measures proposed by Applicant, however, project installation should result in a significantly enhanced and stabilized area along the relatively shallow perimeter of the forebay, including the two springs in the project's upper reach.

Less than 0.25 acres of vegetation would be temporarily displaced by the installation of the pipeline segment extending through pasture (700 ft.); no vegetation would be removed for the pipeline segment extending along an existing road benched in the canyon wall (600 ft.); and approximately 0.3 acres would be temporarily displaced by installation of the penstock descending the slope to the proposed powerhouse site.

Approximately 0.25 acres of vegetation would be temporarily displaced at the powerhouse site. Of this amount, all but the powerhouse area, the tailrace channel, and switchyard area could be re-vegetated.

As mitigation, Applicant will provide for planting a seed mix along the perimeter of the forebay, which seed mix specification shall be solicited from the resource

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agency(ies), as appropriate. Applicant will also re-vegetate disturbed areas surrounding the pipeline alignment, and at the powerhouse location. Pipeline alignment will avoid the existing tree growth in the project's upper reach and the apple tree at the powerhouse site will be retained.

With its letters of response, the USFWS attached a list of identified sensitive species. The list does not indicate the occurrence of any listed, proposed or candidate species of rare, endangered or threatened vegetation in the project area. It is not expected that any species of concern will be affected by project construction.

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FISHERY RESOURCES

As no fishery exists in the irrigation drain, no adverse, un-avoidable impacts of project construction and operation are applicable to a fishery. With appropriate erosion and sedimentation controls during project construction, there should similarly be no detrimental impacts to any fishery past the project in the Snake River approximately .3 miles distant.

In that the sediment collection features of the project will provide a means of improving water quality in the reach, there will be some beneficial effect on water quality–and, thus, the fishery–in the Snake River past the project.

WILDLIFE RESOURCES

A terrestrial habitat loss of approximately 1.5 acres would result from project construction and operation, largely due to displacement by the two proposed embankments, inundation by the new forebay and sediment collection basin; and, to a lesser extent, displacement by the powerhouse and tailrace channel.

An approximate 1.2-acre increase in aquatic/wetlands habitat would occur with project completion due to the proposed water bodies. It is expected that, with proper re-seeding and the installation of erosion control measures, there will be

a positive and beneficial impact to water-fowl species, which would probably avail themselves to the area in the future.

If the Commission conditions the license with a requirement for wetlands creation in the forebay area, Applicant will, during the project's design phase, engage a wetlands specialist and provide detailed topography of the affected area in order to define the placement or removal of fill material which would optimize habitat. Actual placement or removal of material would take place during construction of the embankments.

In order to maintain the proposed enhanced habitat, Applicant will take measures to prevent his cattle from grazing in the affected area. This will be accomplished by means of fencing the perimeter of the forebay. Applicant will continue, however, to provide for livestock watering from the springs, and will take measures to "gravity-pipe" spring water to a trough immediately adjacent to the springs but outside the fenced area. The trough would outfall to approximately the same location as currently inundated by the springs.

In order to foster the permanent establishment of wetlands along the length of the ditch, Applicant will fence the ditch along its east bank–the west bank is bounded by cropland–from the toe of the forebay's embankment to the location where the ditch transitions to the ravine.

Several natural seeps on either side of the ditch will contribute to the ditch downstream of the embankment. Given the absence of a fishery, it is expected the seeps in the upper reach, as well as the numerous seeps from the canyon wall providing moisture to the riparian zone in the ravine, will contribute to continuing vegetative growth along the entire bypass reach.

Dust and noise resulting from the use of heavy machinery and other human activity could temporarily disrupt wildlife in the area; however, it is unlikely that wildlife would permanently leave the general area because of the noise, and would probably become acclimated to temporary construction activity, albeit at a "safe" distance.

Project operations are similarly not expected to permanently displace the area's wildlife, which will likely become acclimated to the structures' existence and the low levels of noise from the turbine's operation. Given the scale of development and the numerous other commercial operations in the immediate project area (gravel mining operations, a larger nearby hydroelectric project, a relatively large commercial fish hatchery, all of which are within less than one mile), project operations would not be expected to make any significant contribution to existing noise levels.

Raptors will probably continue to range through the project area, and a valid concern exists about the potential for raptor electrocution due to the new section of power line extending from the powerhouse to the upper reach of the project. Subject to specifications provided by resource agencies, Applicant will "raptor-proof" new transmission facilities within the project boundary.

WATER QUALITY AND QUANTITY

An approximate 400-foot length of intermittent watercourse will be displaced by the proposed forebay. An approximate 500 ft. length will also be displaced by the proposed sediment collection basin. Given the average width of the ditch–approximately three ft.–it is estimated that actual displacement will be less than one-tenth (0.1) acre.

The impoundment created by the embankment will have a water surface area of approximately 0.6 acres at normal headwater elevation 3390 msl. Because of the turbine type (i.e., a Pelton wheel is capable of efficiently operating over a wide range of flow), and Applicant's desire to maintain a maximum head condition, a constant water surface elevation will be maintained at all times.

Of important note is the proposed sedimentation collection basin's function as a settling pond for topsoil-laden, nutrient-rich irrigation return flows. The basin's volume will approximate that of the forebay, and the embankment height has been calculated to consider both flow detention, plus the amount of sediment

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projected for collection annually. The embankment will have two feet of freeboard in order to restrict passage of sediment downstream into the forebay.

Information for estimating sediment accumulation and pond dimensions were obtained from data compiled in the Middle Snake River Water Quality Study - Phase 1 Final Report (February 1992, prepared by Charles E. Brockway, P.E. and Clarence W. Robison, P.E.) The report discloses that the Kastelu drain was selected as a water quality sampling station and was classified as an irrigation return flow. Monitoring of the drainage was conducted from June, 1990 through July, 1991. The sampling location was at the canyon floor approximately 100 yards prior to the drain's confluence with the Snake River. During the monitoring period a sediment concentration as high as 3,110 milligrams per liter (mg/l) was recorded. The proposed sediment collection basin is sized to provide an approximate two-hour detention based on an estimate of sediment accumulation over a one-year period.

With a two-hour detention time, research shows that approximately seventy percent of the sediment loading will be removed (i.e., "settled out"). A similar amount of removal of phosphates attached to the sediment is expected to occur.

The following Tables E-2 and E-3 depict the estimated annual removal (tonnage) of sediment and phosphates, respectively.

Applicant will periodically remove the sediment deposits accumulating behind the upstream embankment. It is expected, then, that the upstream collection basin will need to be occasionally drained for this purpose. In that such draw-downs will range below the top of the penstock, and could result in a virtually complete de-watering of the impoundment, Applicant would intend to consult with affected resource agencies as to the timing of draw-downs for removing sediment. It is planned, however, that sediment removal will occur annually, during the winter and a low inflow period. In any event, inflows will bypass the basin via the referenced proposed bypass ditch.

It is also expected that some sediment will also accumulate in the forebay. It is therefore planned to remove sediment in the forebay every five years. During

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TABLE E-2

ESTIMATED ANNUAL SEDIMENT REMOVAL
SAHKO HYDROELECTRIC PROJECT

Date	Days	Flow cfs	Sediment Conc.* mg/l	Sediment Load lbs	Sediment Acc. tons	
1/2/91	9	1.4	16	1,056	0.5	
1/8/91	6	1.4	24	1,056	1.1	
1/15/91	7	1.4	16	822	1.5	
1/22/91	7	1.4	8	411	1.7	
1/29/91	7	1.4	9	462	1.9	
2/5/91	7	1.4	10	513	2.2	
2/12/91	7	1.4	6	308	2.3	
2/19/91	7	1.4	2	103	2.4	
2/26/91	7	1.4	2	103	2.4	
3/5/91	7	1.1	2	84	2.5	
3/12/91	7	1.1	7	293	2.6	
3/19/91	7	1.1	12	503	2.9	
3/26/91	7	1.1	20	817	3.3	
4/2/91	7	1.1	27	1,132	3.8	
4/9/91	7	1.1	14	587	4.1	
4/16/91	7	2.2	1	83	4.2	
4/23/91	7	8.0	247	74,173	41.3	
4/30/91	7	9.9	492	183,337	132.9	
5/7/91	7	10.4	580	227,078	246.5	
5/14/91	7	8.9	514	172,712	332.8	
5/21/91	7	8.9	452	151,879	408.8	
5/28/91	7	11.9	608	273,391	545.5	
6/4/91	7	13.0	679	332,746	711.8	
6/11/91	7	15.2	750	430,401	927.0	
6/18/91	7	16.4	1,220	752,935	1,303.5	
6/25/91	7	15.2	1,690	969,551	1,788.3	
7/2/91	7	16.4	1,300	802,318	2,189.4	
7/9/91	7	17.5	910	602,615	2,490.7	
7/16/91	7	15.2	1,170	671,426	2,826.4	
7/23/91	7	15.2	1,430	820,632	3,236.8	
7/30/91	7	11.9	1,147	515,756	3,494.6	
8/6/91	7	9.4	864	305,975	3,647.6	
8/13/91	7	8.9	625	210,009	3,752.6	
8/20/91	7	8.9	386	129,702	3,817.5	
8/27/91	7	8.9	285	95,596	3,865.3	
9/3/91	7	8.9	183	61,491	3,896.0	
9/10/91	7	8.9	164	54,938	3,923.5	
9/17/91	7	8.9	144	48,386	3,947.7	
9/24/91	7	8.9	137	46,034	3,970.7	
10/1/91	7	8.9	130	43,682	3,992.5	
10/8/91	7	8.9	98	32,929	4,009.0	
10/15/91	7	8.9	66	22,177	4,020.1	
10/22/91	7	7.1	38	10,129	4,025.2	
10/29/91	7	3.5	10	1,318	4,025.8	
11/5/91	7	3.2	10	1,189	4,026.4	
11/12/91	7	3.2	10	1,189	4,027.0	
11/19/91	7	3.2	9	1,070	4,027.5	
11/26/91	7	3.2	8	951	4,028.0	
12/3/91	7	2.5	8	755	4,028.4	
12/10/91	7	1.9	8	574	4,028.7	
12/17/91	7	1.4	8	411	4,028.9	
12/24/91	7	1.4	8	411	4,029.1	
	365.0	6.6	318	8,058,198	4,029.1	Total Tons
					70%	Removal
					2,820.4	Tons Removed

*Interpolated from data in Middle Snake River Water Quality Study Phase I, February 1992

TABLE E-3

ESTIMATED ANNUAL PHOSPHATE REMOVAL
SAHKO HYDROELECTRIC PROJECT

Date	Days	Flow cfs	Phosphate Conc.* mg/l	Phosphate Load lbs	Phosphate Acc. tons	
1/2/91	9	1.4	0.00	0.0	0.00	
1/8/91	6	1.4	0.00	0.0	0.00	
1/15/91	7	1.4	0.00	0.0	0.00	
1/22/91	7	1.4	0.00	0.0	0.00	
1/29/91	7	1.4	0.00	0.0	0.00	
2/5/91	7	1.4	0.00	0.0	0.00	
2/12/91	7	1.4	0.00	0.0	0.00	
2/19/91	7	1.4	0.00	0.0	0.00	
2/26/91	7	1.4	0.00	0.0	0.00	
3/5/91	7	1.1	0.00	0.0	0.00	
3/12/91	7	1.1	0.02	0.8	0.00	
3/19/91	7	1.1	0.04	1.6	0.00	
3/26/91	7	1.1	0.04	1.8	0.00	
4/2/91	7	1.1	0.05	2.0	0.00	
4/9/91	7	1.1	0.03	1.3	0.00	
4/16/91	7	2.2	0.01	1.0	0.00	
4/23/91	7	8.0	0.23	70.3	0.04	
4/30/91	7	9.9	0.46	169.5	0.12	
5/7/91	7	10.4	0.67	260.7	0.25	
5/14/91	7	8.9	0.61	204.0	0.36	
5/21/91	7	8.9	0.35	116.6	0.41	
5/28/91	7	11.9	0.48	215.4	0.52	
6/4/91	7	13.0	0.63	308.5	0.68	
6/11/91	7	15.2	0.78	447.6	0.90	
6/18/91	7	16.4	1.11	683.8	1.24	
6/25/91	7	15.2	1.44	823.8	1.65	
7/2/91	7	16.4	1.00	615.9	1.96	
7/9/91	7	17.5	0.56	370.8	2.15	
7/16/91	7	15.2	0.96	552.1	2.42	
7/23/91	7	15.2	1.36	782.8	2.82	
7/30/91	7	11.9	1.05	471.2	3.05	
8/6/91	7	9.4	0.73	259.2	3.18	
8/13/91	7	8.9	0.56	188.7	3.27	
8/20/91	7	8.9	0.39	131.4	3.34	
8/27/91	7	8.9	0.30	99.1	3.39	
9/3/91	7	8.9	0.20	66.9	3.42	
9/10/91	7	8.9	0.19	64.5	3.46	
9/17/91	7	8.9	0.19	62.2	3.49	
9/24/91	7	8.9	0.16	52.8	3.51	
10/1/91	7	8.9	0.13	43.3	3.53	
10/8/91	7	8.9	0.08	26.5	3.55	
10/15/91	7	8.9	0.03	9.7	3.55	
10/22/91	7	7.1	0.01	3.9	3.55	
10/29/91	7	3.5	0.00	0.0	3.55	
11/5/91	7	3.2	0.00	0.0	3.55	
11/12/91	7	3.2	0.00	0.0	3.55	
11/19/91	7	3.2	0.00	0.0	3.55	
11/26/91	7	3.2	0.00	0.0	3.55	
12/3/91	7	2.5	0.00	0.0	3.55	
12/10/91	7	1.9	0.00	0.0	3.55	
12/17/91	7	1.4	0.00	0.0	3.55	
12/24/91	7	1.4	0.00	0.0	3.55	
	365.0	6.6	0.29	7,109.6	3.55	Total Tons
					70%	Removal
					2.49	Tons Removed

*Derived from data in Middle Snake River Water Quality Study Phase I, February 1992
(Total Phosphate minus Ortho Phosphate)

the clean-out effort in the forebay, the power plant will be shut down, and the bypass pipe in the embankment will be opened to drain the impoundment. It is planned to excavate the accumulated sediment at the lowest elevations, then begin filling the basin concurrent with further excavation. It is anticipated the time necessary for the sediment removal effort will coincide with the re-fill rate, approximately 24 hrs. During this time, most disturbed sediment should settle out. As necessary, the power plant will postpone start-up until sediment has settled in the forebay.

Potentially unstable slope areas along the pipeline route would be identified in pipeline design studies. Mitigation measures for areas identified as potentially unstable would include temporary buttressing during construction, and back-fill and complete re-vegetation following construction. Netting and terracing would be used to prevent slope failure where necessary.

The proposed powerhouse will be constructed away from the stream.

The proposed tailrace will be lined with rip rap to its junction with the existing ditch.

As mitigation during and after construction, a substantial erosion control program shall be established, and shall include the use of:

- net covers, where necessary, to impede soil loss on steep slopes;
- straw bales to control runoff;
- use of timed-release fertilizer in areas where the fertility of disturbed soil may hinder establishment of vegetation; and
- terracing of disturbed slopes, if necessary, in order to prevent wash-out during severe storms.

After construction is complete, monitoring of erosion control measures shall be done by the contractor. Where greater-than-normal amounts of silt are reaching the shoreline, control measures shall be increased to a point where runoff is of normal quantity and quality.

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Seeps from springs downstream of the lower embankment will not be affected by the project, and will continue through the reach, providing moisture to the vegetation in the ravine.

LAND USE

Approximately 1.2 acres will be inundated by the project's forebay and sediment collection basin. Of this amount, approximately one-quarter is desert/sagebrush terrain, with the remainder being grazed pasture. As a result, this land will no longer be available to grazing.

In order to promote the permanent establishment of wetlands in the project area, Applicant will restrict livestock grazing by fencing, as described above.

HISTORIC, ARCHAEOLOGICAL AND CULTURAL RESOURCES

As no resources of cultural or historic import are known to exist in the project area, it is not anticipated that any direct or indirect adverse impacts will occur due to project construction or operation.

If required by the Commission as an article of license, Applicant will arrange for an inspection by a professional archaeologist. In any event, however, during construction Applicant will notify the SHPO if any artifacts of interest be uncovered and will cease work in the immediate area until a professional archaeologist is brought in to survey the area, as appropriate, and in consultation with the Idaho SHPO.

SCENIC AND AESTHETIC RESOURCES

As a result of project construction, a new water body will be created. In considering the surrounding area and the lack of standing water bodies, this is not viewed as an adverse impact due to project development.

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Although relatively small, and in a set-back position relative to the canyon wall, the embankment may be visible from across the Snake River canyon (ie, from its north rim) approximately 1.5 miles distant. While this might otherwise be viewed as an interruption in the continuity of the canyon wall's profile, it is noteworthy than this section of the Snake River canyon is marked in numerous places by draws and canyons associated with tributary streams. The most noticeable feature of the project, then, may be the earthen embankment as viewed from across the river; however, from the only practical viewpoint (i.e., on the north rim of the canyon), the structure would be in the background view, and located farther up the reach of the draw. Also given the numerous other commercial developments in the canyon–notably, several farms, two other hydroelectric projects, a fish hatchery and a gravel pit it is not expected this new construction will distinguishably alter the only available view-shed. The embankment structure will not be visible from below.

In order to minimize the potential for an adverse alteration of the view-shed, however, Applicant will minimize any tree-cutting downstream of the embankment in order that existing tree-growth will serve as further screening the embankment from the view-shed.

The penstock will be buried along its entire length, and disturbed areas will be re-vegetated.

Due to the powerhouse's proximity to a large apple tree and other shrubs, it is expected the existing vegetative growth will serve to screen the structure.

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RECREATIONAL RESOURCES

In that the land within the project boundary is privately owned, and given its historic use for cattle-grazing and agriculture, there currently exists virtually no opportunity for recreational use.

Because the pond will probably serve as a new haven to waterfowl, Applicant may allow restricted hunting access during the fall.

4.61(d)(2)(iii)

CONSULTATION WITH AGENCIES

FIRST-STAGE CONSULTATION

Described below is a summary record of communications between the Applicant and various state and federal agencies during stage one-consultation. Documentation is included as Appendix 2 herein. Applicant's responses immediately follow each letter's summary and are identified in italics enclosed by parentheses. Communications by Applicant or Applicant's authorized agent are collectively referred to as those of the Applicant.

By letter of September 22, 1992, Applicant transmitted an "information package" to each agency identified in the foregoing Service List. The package included information about the project as proposed at that time (serving as the basis for Exhibit A); a description of the affected environment, anticipated impacts and proposed measures for mitigation or enhancement of resources (collectively serving as the basis for Exhibit E); and, a project location/boundary map (serving as the basis for Exhibit G).

An October 1, 1992 letter of the National Marine Fisheries Service (NMFS) responded to the first-stage information package with "no comment".

(The project is located away from any marine, estuarine, or anadromous fishery resources to which the agency has responsibility for protection).

By letter of October 15, 1992 Applicant advised each government agency of its intent to hold an on-site meeting; and, Agent also advised of a meeting with the agencies and the public to seek additional comments, said on-site meeting and meeting with the public planned for November 2, 1992.

On October 16, 1992, a Legal Notice was published in the area's local newspaper, the Twin Falls, Idaho *Times-News* noting the purpose and schedule of the intended meeting.

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By letter of October 16, 1992, Applicant advised Commission staff (OHL Director) of the planned meetings, and enclosed an Affidavit of Publication of the Legal Notice.

An October 21, 1992 letter of the US Fish and Wildlife Service (FWS) advised of the proposed project's potential impact to riparian wetlands in the project area; and, the FWS also enclosed an identification of listed and proposed endangered and threatened species, and candidate species, that occur in the *general* area.

An October 30, 1992 letter of the Idaho Dept. of Fish and Game (IDFG) indicated the project "would have minimal impacts on fish and wildlife provided the project will utilize only existing water diversions..."

(Applicant intends to use only existing flows and springs in the irrigation system [i.e., no new sources of water are contemplated for hydropower use]. Further, Applicant has applied to the Idaho Dept. of Water Resources for a maximum flow of 20 cfs for hydropower and other purposes.)

IDFG also indicated concerns about the "potential loss of existing vegetation in the canyon area...", and requested a vegetative sampling to document species and quantity of existing vegetation.

(Vegetation types are identified in the foregoing Figure E-1. Since the transmittal of the first-stage information package, however, Applicant has revised the plan for penstock construction, which is now intended to be completely buried. As indicated in the forgoing "Impacts..." section, Applicant will re-seed areas of disturbance.

Vegetation at the powerhouse and tailrace locations will be unavoidably and permanently displaced. Total permanent displacement will be less than 0.25 acres. Any other areas disturbed incidental to powerhouse and tailrace construction will be re-seeded. With the installation of the embankment and attendant forebay, Applicant will create approximately the same amount of permanently established wetlands vegetation.)

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IDFG also requested that the project proposal *not* contain provisions for improved recreation access.

(Because installation of some project features [i.e., forebay and sediment collection basin] will provide for increased wildlife sanctuary, Applicant does not intend to make any recreational access improvements, and the entire area will continue to be fenced; further, Applicant will restrict hunting opportunities on the property.)

On November 2, 1992 an on-site meeting with interested agencies was convened. In addition to the Applicant and the Applicant's consultants, the attendees included:

Ted Koch (USFWS)
Robert Flowers (US Army, Corps of Engineers)
Loren Holmes (Idaho Dept. of Water Resources)
Douglas Jones (Idaho Dept. of Water Resources)
Tim Litke (Idaho DHW, Division of Environmental Quality)

A copy of the Attendance Register is included as an appendix.

In accordance with published legal notice, a meeting with the public was convened at the Filer, Idaho Public High School on the evening of November 2, 1992. In addition to the Applicant and the Applicant's consultants, attendees included:

Dave Parrish (Idaho Dept. of Fish and Game)

No members of the public attended. A copy of the Attendance Register is included as an appendix.

A November 2, 1992 letter of the National Park Service/USDOI disclosed that the NPS would be unable to review the project due to scheduling and budget

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constraints; and, the NPS suggested requesting comments from the Idaho State Historic Preservation Office (SHPO).

(In September, 1992, Applicant also transmitted an information package to, and solicited comments from, the Idaho SHPO)

On November 5, 1992, Mr. Karl Simonson of the US Bureau of Land Management (BLM) contacted the Applicant's engineer by telephone and, after reviewing his maps, acknowledged that the project is located entirely on privately-owned land.

A November 18, 1992 letter of the Idaho State Historic Preservation Office (SHPO) recommended an on-site inspection by a professional archaeologist "...prior to ground-disturbing activities."

(The project area in its upper reach comprises a bowl-shaped pasture which has historically be heavily grazed by livestock. The project's lower reach is a steeply incised ravine representing the majority of the project's 328 ft. head. Applicant has never encountered any artifacts of interest in the project area, and questions value of expense for conducting an on-site inspection; however, if so required by the Commission as an article of license, Applicant will arrange for an inspection. In any event, during construction Applicant will notify the SHPO if any artifacts of interest be uncovered and will cease work in the immediate area until a professional archaeologist is brought in to survey the area, as appropriate.)

A November 25, 1992 letter of the Idaho Dept. of Water Resources (IDWR), State Office (Boise) indicates that the department "...will have direct involvement in certain aspects of the project." Reasoning included the fact that the embankment, proposed to have a 20 ft. height, would come under the department's safety authority.

(Applicant would note that the IDWR's on-site observations and its comments contained in the letter relied on an originally-envisioned project including a 20 ft. high dam impounding a 9.5 acre-ft. storage reservoir; however, because of changes in the turbine type, the relocation of the proposed embankment, and a revised water management philosophy [i.e., the project would no longer provide for water surface fluctuations] the project has been revised to now include nine ft. high embankment impounding a forebay with a volume of three acre- ft.; as a

result, Applicant believes a re-evaluation by IDWR would be appropriate, notwithstanding the issue of its involvement under safety authority responsibilities if that were its continued finding.)

IDWR also acknowledged that the project is not subject to the interim protection restrictions embodied in the Middle Snake River Plan adopted by the Idaho Water Resources Board, and presently before the Idaho Legislature.

(Applicant agrees that the project lies outside the area regarded in the Middle Snake River Plan; further, it was the Idaho Water Resource Board's (IWRB) conclusion in the Plan that investigation of feasibility of projects as proposed herein [i.e., projects located on irrigation returns] should be encouraged.)

Another concern raised by the IDWR referenced the potential for "...rapid change in water levels in the stream, caused by operating the plants by surging to optimize the power production..."

(Applicant does not intend to create any rapid water level changes; rather, it is planned to maintain a constant water level behind the embankment, and operate the project in a strict run-of-stream mode.)

A December 8, 1992 follow-up letter of the Dept. of Water Resources (IDWR), Southern Region Office (Twin Falls) indicated that department staff made a determination that the originally-proposed project would pose a "significant hazard" in the event of a failure. It was also noted that the "...determination may be modified..."

(In light of several fundamental changes to the project's magnitude and configuration, Applicant believes it appropriate for the IDWR to reconsider its evaluation and resulting hazard determination. Several factors warrant such re-consideration:

- *Absence of commercial or habitable structures below the project in the canyon area which could be potentially affected by a structural breach;*
- *Decrease in the overall height of the embankment (from 22 ft. to 13.5 ft.)*

- *Decrease in the water body's depth (from 20 ft. to nine ft.)*
- *Decrease in the impoundment's volume from 9.5 acre-ft. to 3 acre-ft.*
- *Relocation of the embankment approximately 350 ft. further upstream which, combined with it decreased magnitude, would result in a significant reduction of potential impacts associated with the water body's attenuation in the event of breach or failure.*

Applicant will make final comments regarding IDWR's dam safety authority, hazard evaluations and hazard determinations after receiving IDWR's further comments in light of project changes identified in the draft application)

A December 10, 1992 letter of the US Fish and Wildlife Service (FWS) identified several concerns about the project, which concerns were largely precipitated by the project's originally-proposed magnitude, configuration, and water management philosophy; that is, a fluctuating water surface elevation would not necessarily cause permanently established wetlands, or promote a constancy of conditions for wildlife which would begin using the new land forms/water bodies; according, the FWS requested a wetlands delineation of the project area

(Discussions between the Applicant's consultant and FWS staff indicated the referenced wetlands study request was largely precipitated by a proposed plan to fluctuate the initially-proposed storage impoundment's water surface. As a result of the discussions, Applicant transmitted a letter on March 18, 1992 (see appendix) to the FWS, wherein the extent of project revisions were identified. Applicant believes that, with the FWS understanding of the revised project's configuration, magnitude and mode of operation, it would be more appropriate to address FWS concerns when they are most current, and responsive to the draft application.)

An April 13, 1993 letter of the FWS responding to Applicant's communication referenced above concurred that project changes appeared to satisfy most of its concerns.

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SECOND-STAGE CONSULTATION

By letter of April 23, 1993 a draft application for license was sent to the agencies identified in the Service List.

(To be completed)

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EXHIBIT F

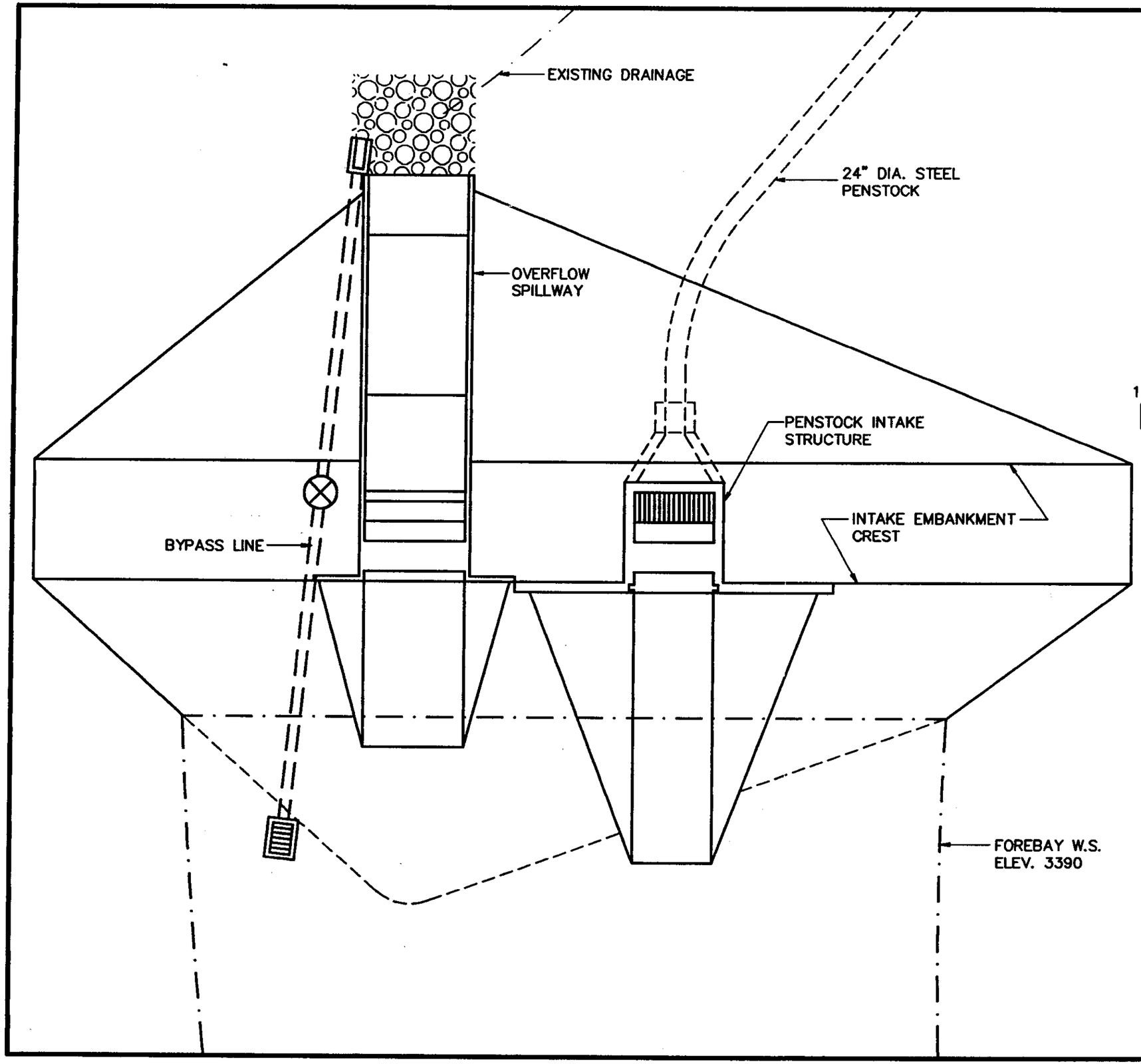
GENERAL DRAWINGS

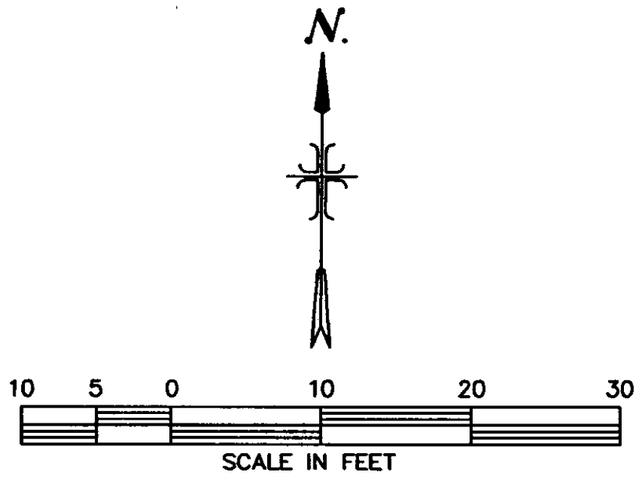
OF

PRINCIPAL PROJECT WORKS

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Figure	Description
F-1	Intake Embankment - Plan
F-2	Sediment Collection Embankment - Plan
F-3	Intake Embankment - Sections
F-4	Overflow Spillway at Intake Embankment - Section
F-5	Overflow Spillway at Sediment Collection Embankment - Section
F-6	Penstock Intake Structure - Plan
F-7	Penstock Intake Structure - Section
F-8	Powerhouse - Plan
F-9	Powerhouse - Section





THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE ____ DAY OF _____, 1993.

D.W. BLOCK, AUTHORIZED AGENT

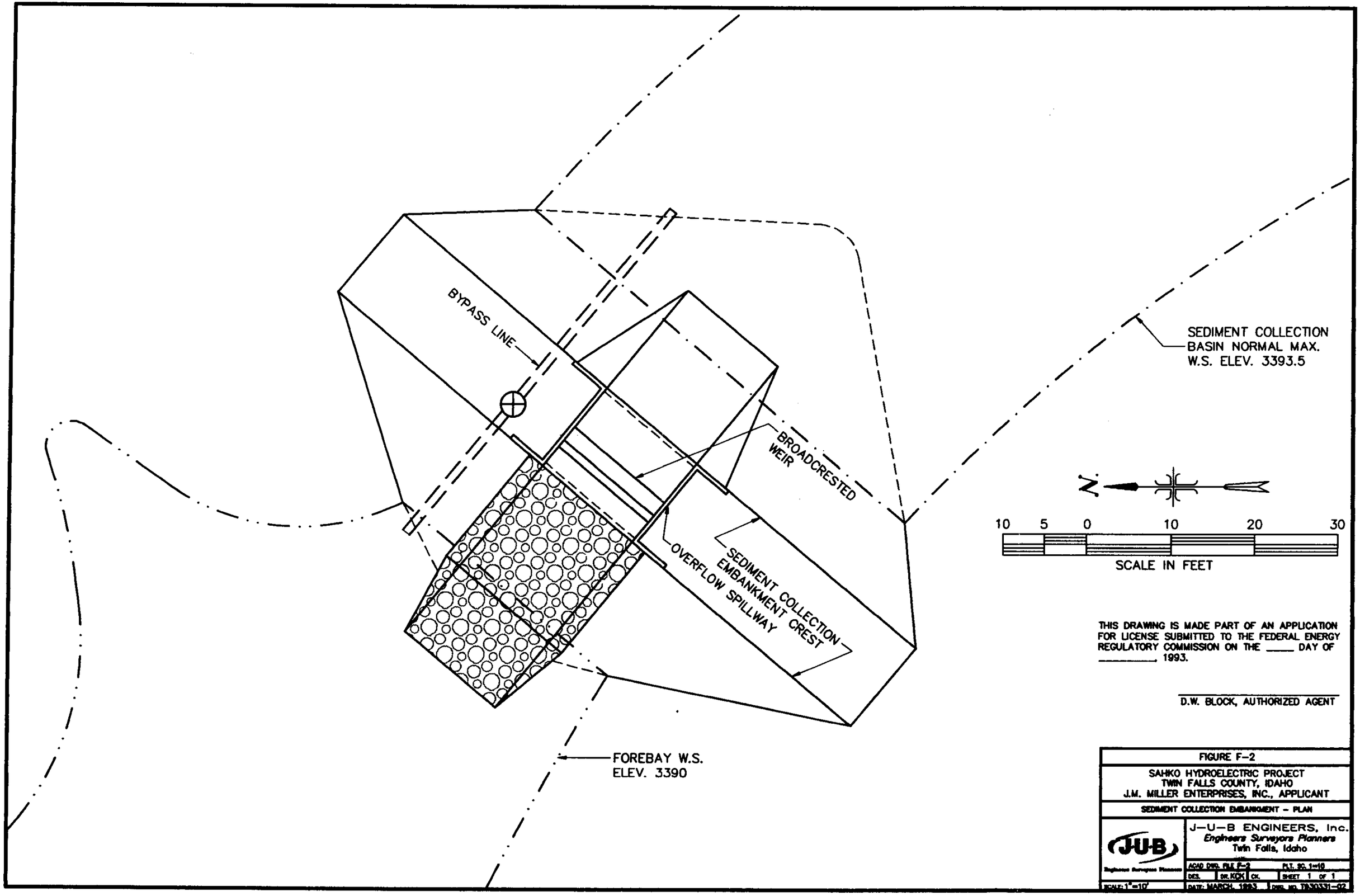
FIGURE F-1

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

INTAKE EMBANKMENT - PLAN

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE#-1			PLT. SC. 1=10
DES.	DR. KDK	CK.	SHEET 1 OF 1
SCALE: 1"=10'	DATE: MARCH, 1993		DWG. NO. 7930331-01



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE _____ DAY OF _____, 1993.

D.W. BLOCK, AUTHORIZED AGENT

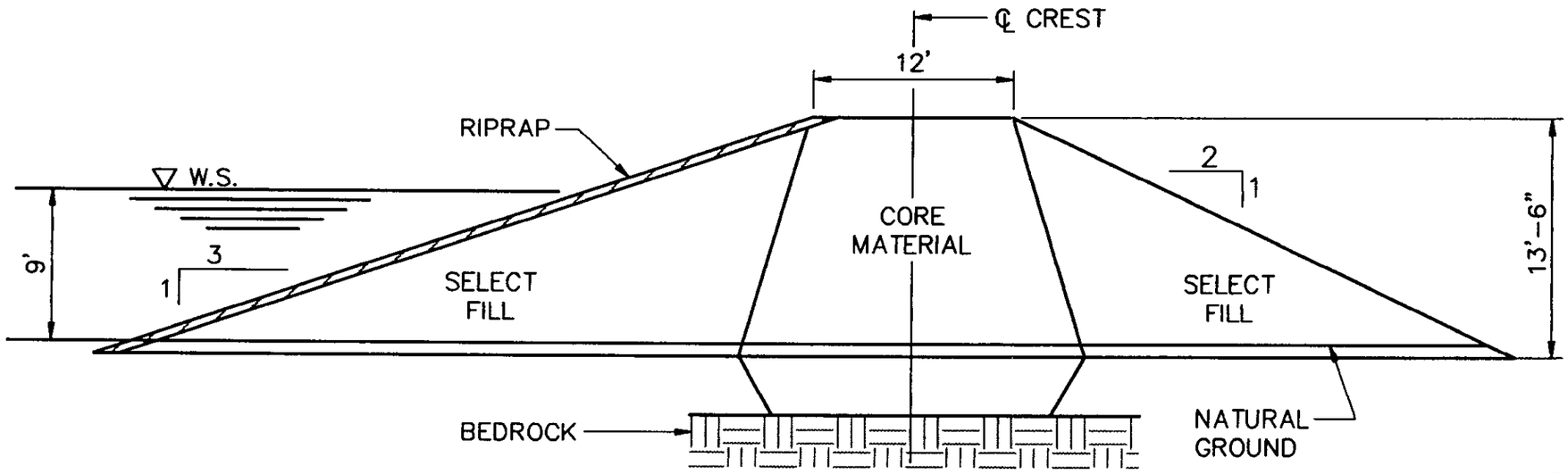
FIGURE F-2

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

SEDIMENT COLLECTION EMBANKMENT - PLAN

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

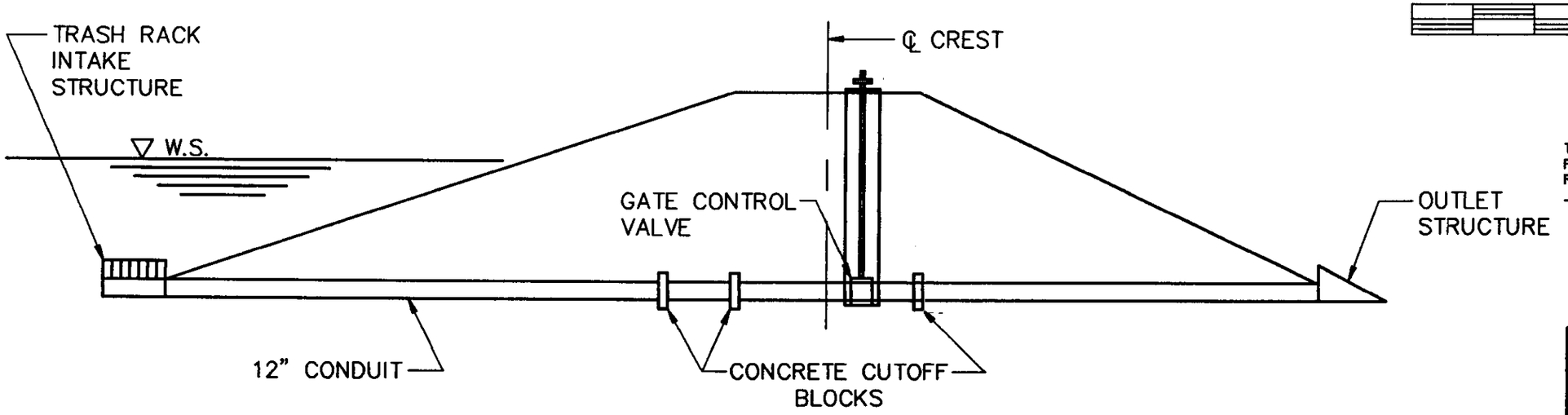
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DES. | DR. KCK | CK. | SHEET 1 OF 1
SCALE: 1"=10' | DATE: MARCH, 1993 | DWG. NO. TR30331-02



ACTUAL COMPOSITION AND DIMENSIONS OF EMBANKMENT TO BE DETERMINED FROM GEOTECHNICAL INVESTIGATION OF ONSITE MATERIALS.

NOTE :
THE SECTION AND PROFILE FOR THE SEDIMENT COLLECTION EMBANKMENT ARE SIMILAR IN LAYOUT.

TYPICAL SECTION





THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE ____ DAY OF _____ 1993.

D.W. BLOCK, AUTHORIZED AGENT

BYPASS LINE PROFILE

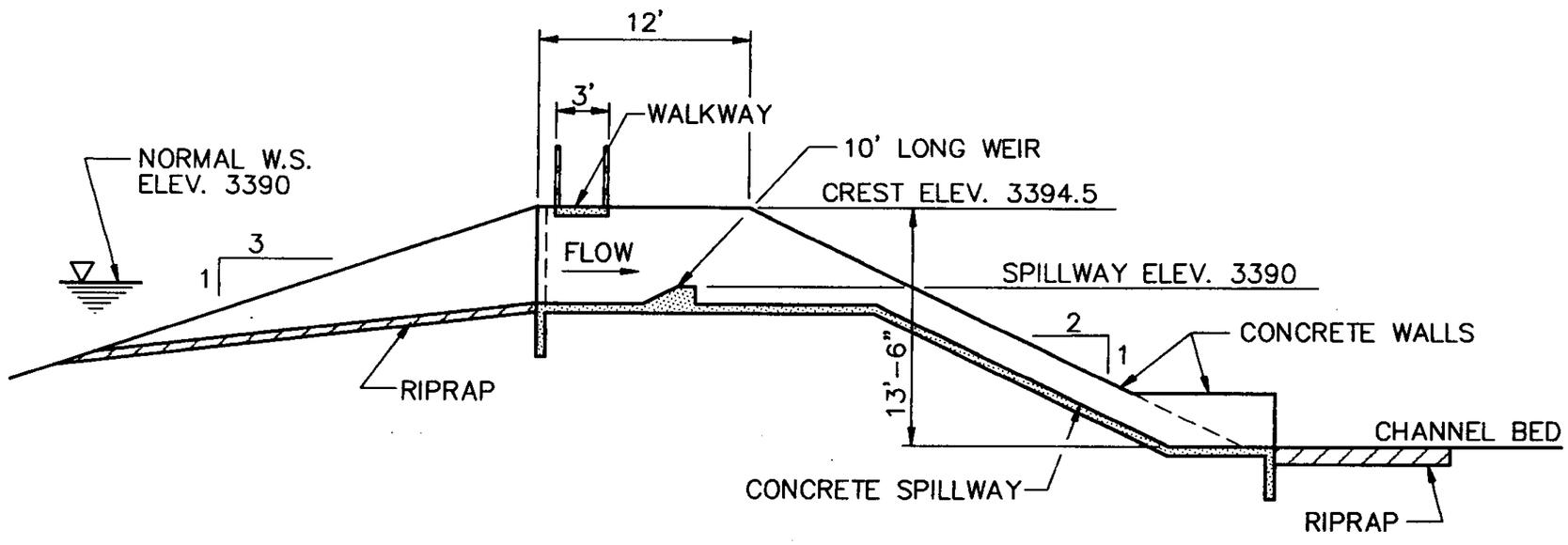
EXHIBIT F-3

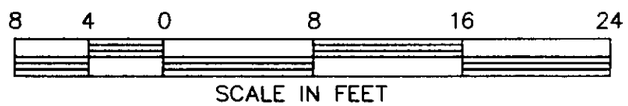
SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

INTAKE EMBANKMENT - SECTIONS

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-3			PLT. SC. 1=8
DES.	DR. KCK	CK.	SHEET 1 OF 1
SCALE: 1"=8'	DATE: MARCH, 1993		DRG. NO. TB30331-03





OVERFLOW SPILLWAY SECTION

THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE _____ DAY OF _____, 1993.

D.W. BLOCK, AUTHORIZED AGENT

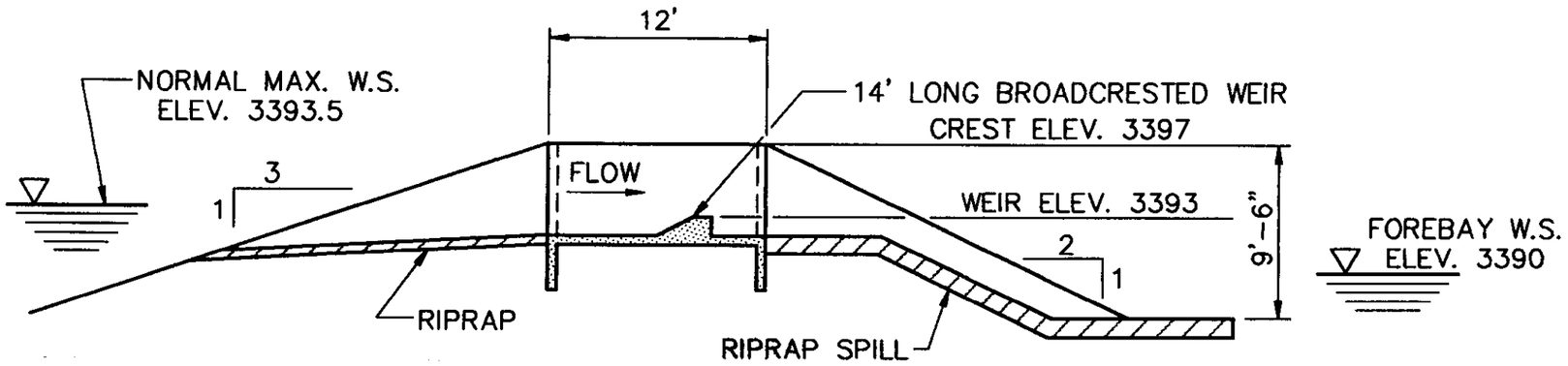
EXHIBIT F-4

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

OVERFLOW SPILLWAY AT INTAKE EMBANKMENT - SECTION

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

SCALE: 1"=8'	DES.	DR. KCK	CK.
ACAD DWG. FILE F-4			PLT. SC. 1=8
DATE: MARCH, 1993			SHEET 1 OF 1
			DWG. NO. TR303371-04



8 4 0 8 16 24

SCALE IN FEET

SEDIMENTATION COLLECTION EMBANKMENT

THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE ____ DAY OF _____, 1993.

D.W. BLOCK, AUTHORIZED AGENT

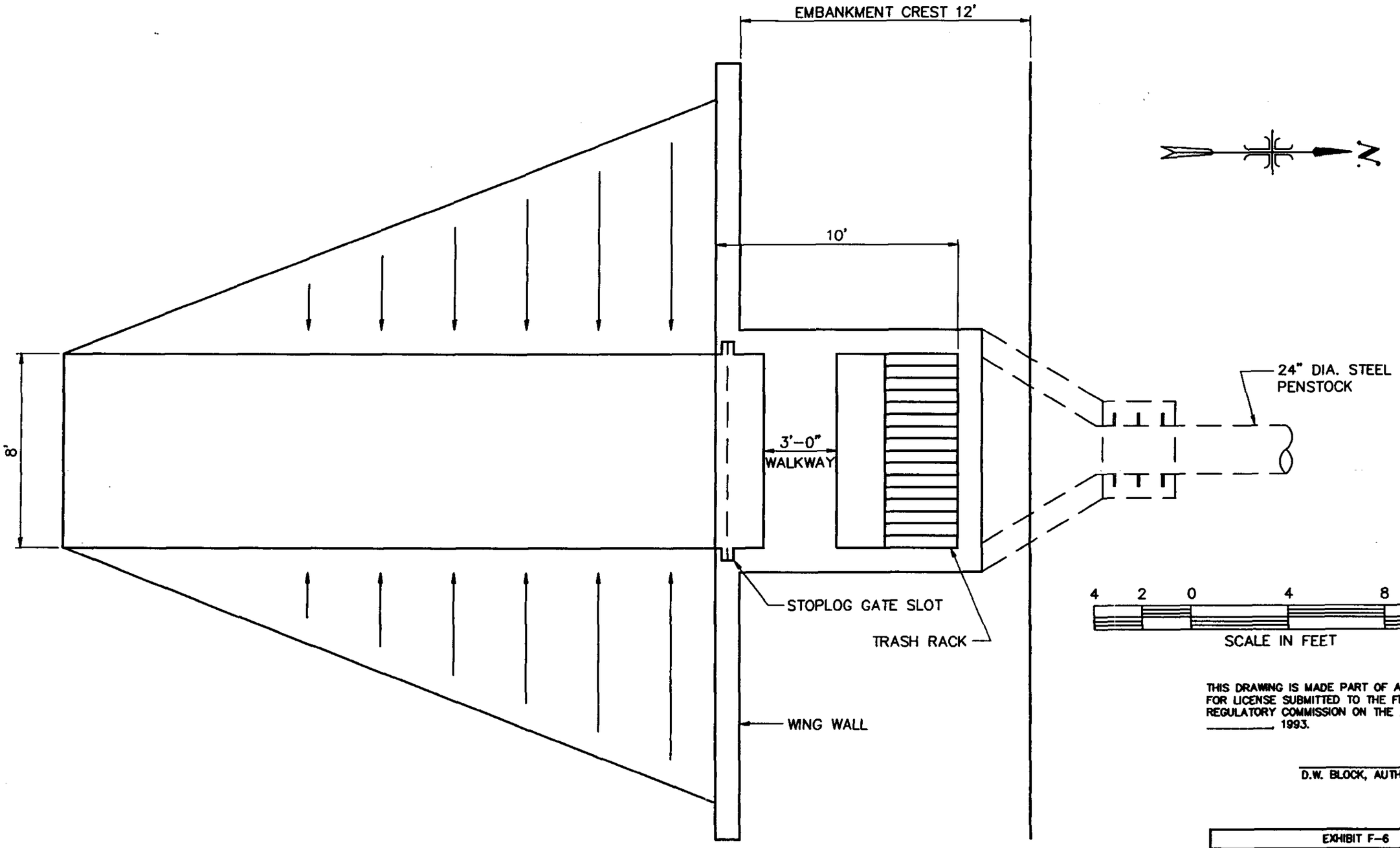
EXHIBIT F-5

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

OVERFLOW SPILLWAY AT SEDIMENT COLLECTION EMBANKMENT - SECTION

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

AGAD DWG. FILE F-5 | PLT. SC. 1=8
DES. | DR. KCK | CK. | SHEET 1 OF 1
SCALE: 1"=8' | DATE: MARCH, 1993 | DWG. NO. T93031-05



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE _____ DAY OF _____, 1993.

D.W. BLOCK, AUTHORIZED AGENT

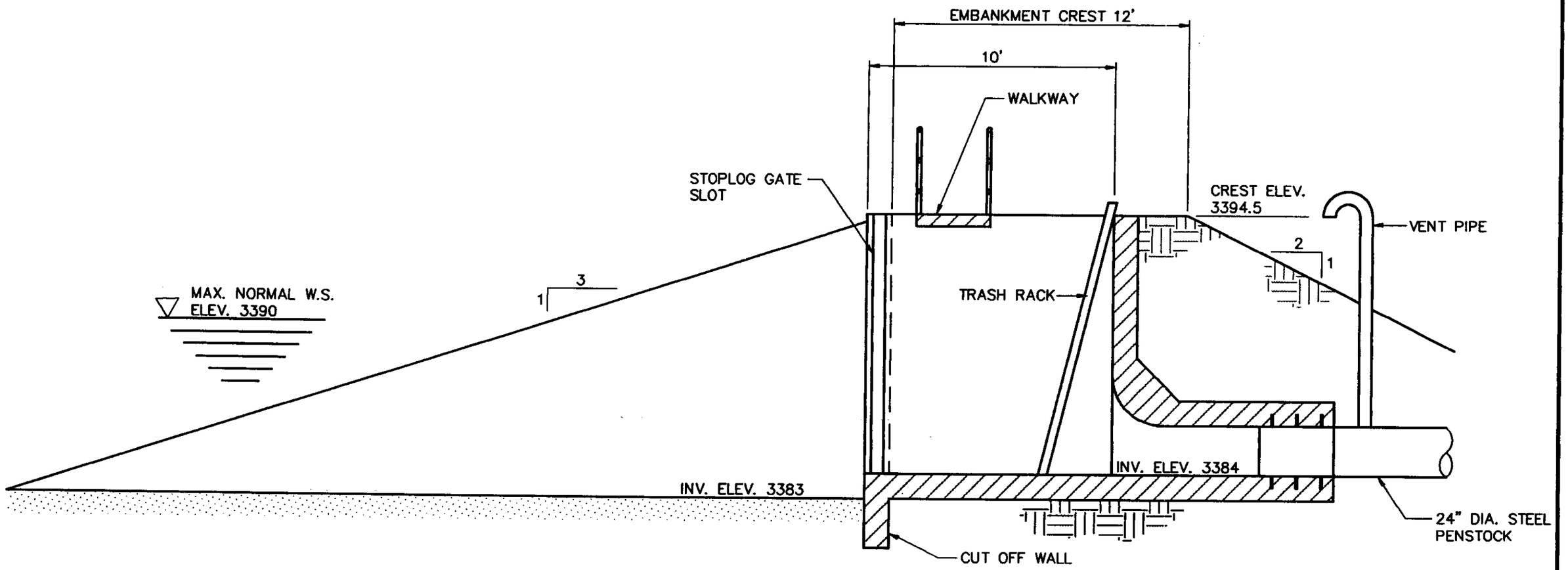
EXHIBIT F-6

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

PENSTOCK INTAKE STRUCTURE - PLAN

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-6 | PLT. SC. 1=48
DES. | DR. KCK | CK. | SHEET 1 OF 1
SCALE: 1"=4'-0" | DATE: MARCH, 1993 | DWG. NO. T9303.71-08



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE _____ DAY OF _____, 1993.

D.W. BLOCK, AUTHORIZED AGENT

4 2 0 4 8 12

SCALE IN FEET

EXHIBIT F-7

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

PENSTOCK INTAKE STRUCTURE - SECTION

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

		ACAD DWG. FILE F-7	PLT. SC. 1=48
		DES.	DR. KCK CK.	SHEET 1 OF 1
SCALE: 1"=4'-0"		DATE: MARCH, 1993	DWG. NO. TB30331-07

50'

25'

INTAKE LOUVER

N.

TAILRACE TO
EXISTING STREAM

TURBINE / GENERATOR

LAYOUT AREA

12' WIDE ACCESS
DOOR

BUTTERFLY VALVE

EXHAUST FAN

ELECTRICAL SWITCHGEAR
AND CONTROLS

ENTRANCE DOOR

CONCRETE THRUST BLOCK

24" DIA. PENSTOCK

4 2 0 4 8 12

SCALE IN FEET

THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE _____ DAY OF _____, 1993.

D.W. BLOCK, AUTHORIZED AGENT

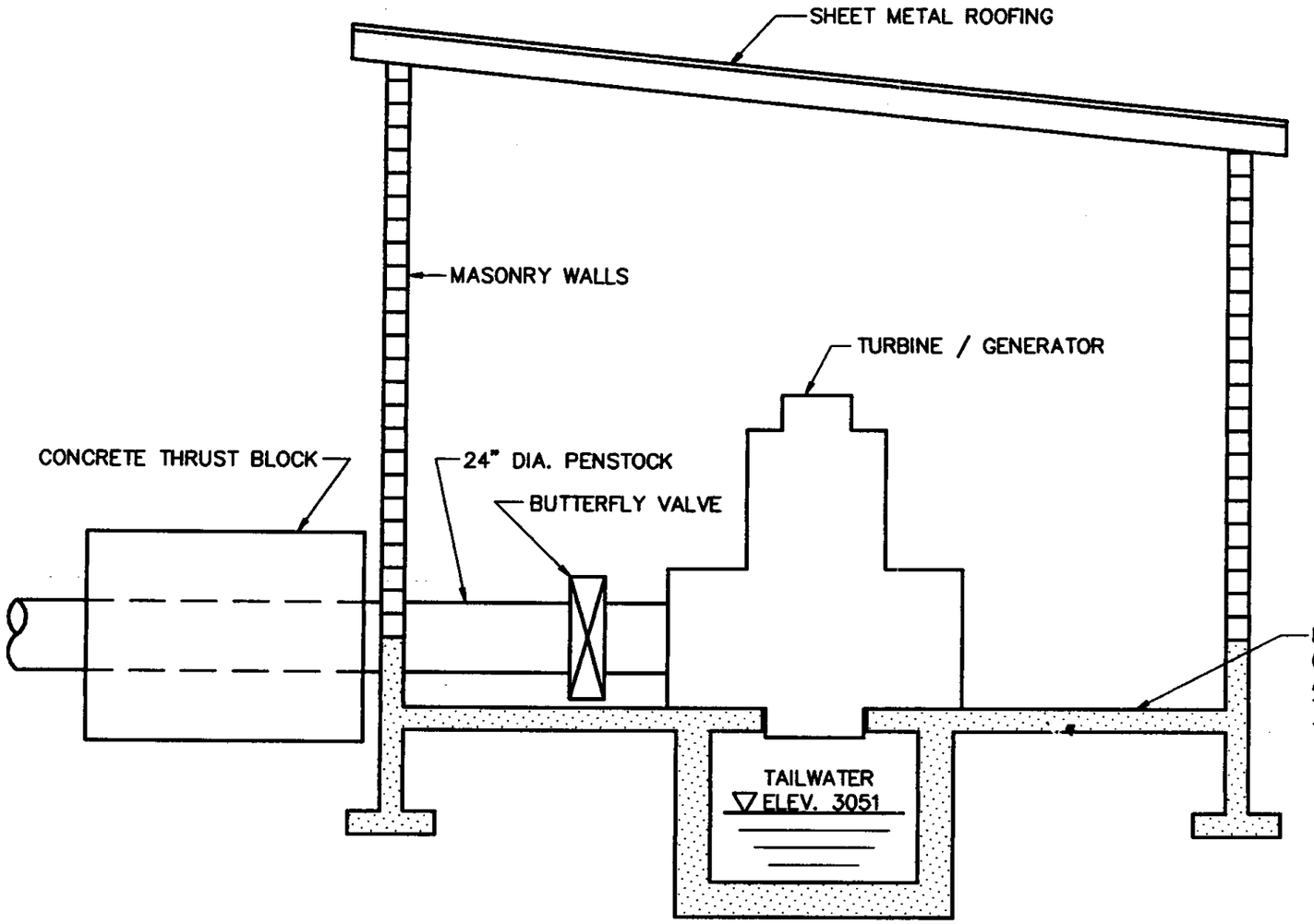
EXHIBIT F-8

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

POWERHOUSE - PLAN

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-8 | PLT. SC. 1=48
DES. | DR. KCK | CK. | SHEET 1 OF 1
SCALE: 1"=4'-0" | DATE: MARCH, 1993 | DWG. NO. T9303331-08



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE _____ DAY OF _____, 1993.

D.W. BLOCK, AUTHORIZED AGENT

4 2 0 4 8 12

SCALE IN FEET

EXHIBIT F-9

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

POWERHOUSE - SECTION

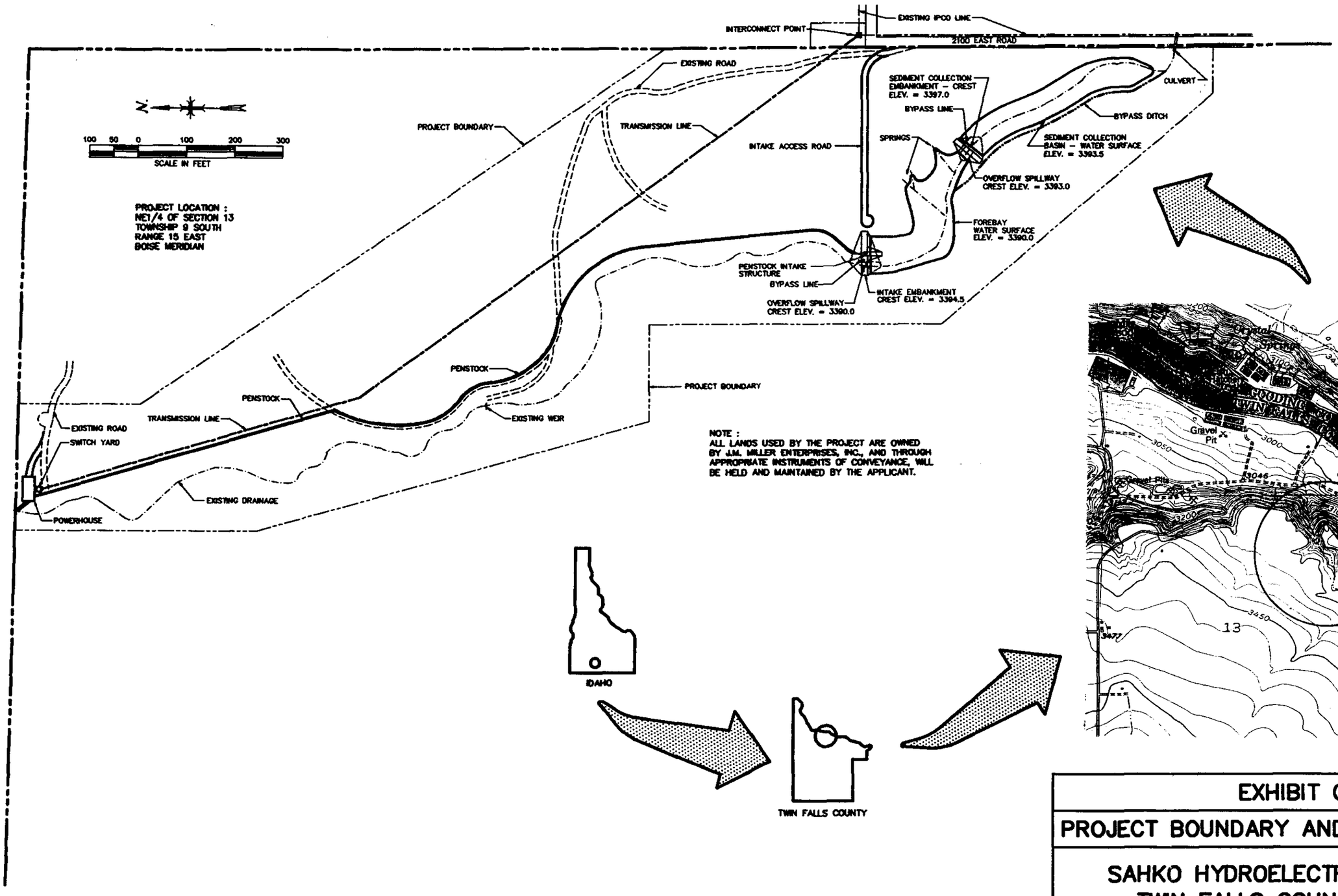
J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-9 | PLT. SC. 1=48
DES. | DR. KCK | CK. | SHEET 1 OF 1
SCALE: 1"=4'-0" | DATE: MARCH, 1993 | DWG. NO. 1930331-09

EXHIBIT G

PROJECT LOCATION MAP

DRAFT
4/93



REVISED 3-16-93

EXHIBIT G

PROJECT BOUNDARY AND LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

APPENDICES

APPENDIX 1 - Request for Water Quality Certification

APPENDIX 2 - Record of Consultation and Correspondence with Agencies

DRAFT
4/93

J·U·B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

September 22, 1992

Mr. Charles Lobdell
Field Supervisor
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road, RM. 576
Boise, Idaho 83705

SAMPLE

RE: Proposed Sahko Hydroelectric Project
Kastelu Drain
Twin Falls County, Idaho
J.M. Miller Enterprises, Inc., Applicant
FIRST-STAGE CONSULTATION

Dear Mr. Lobdell:

Per Title 18 CFR, Part 4.38 regulations of the Federal Energy Regulatory Commission (FERC), we enclose herewith on behalf of the above applicant the following materials for your use in connection with an intended application to the FERC for permission to construct and develop the referenced project:

Project Description (Tabular Summary) - The summary is intended to form the basis for an eventual Exhibit A of the application, identifying the project's general design and mode of operation;

Environmental Report - The narrative will form the basis for an eventual Exhibit E; it reflects the intended project configuration, our current knowledge of the area to be affected by the project, expected and/or potential impacts of development, and the applicant's proffer measures, to the extent they are known, to avoid or mitigate said impacts.

Project Location Map - The map identifies the location of the proposed project, existing and proposed features thereof, and a proposed project boundary enclosing lands to which the applicant has proprietary rights for project development. No public lands are involved. The map will form the basis for an eventual Exhibit G.

Please be advised that the applicant intends to seek benefits under Section 210 of PURPA by satisfying the requirements for qualifying hydroelectric small power production facilities ("QF's") pursuant to 18 CFR, Part 292.203.

In that we have identified your agency as a "relevant" agency in this regulatory procedure before the FERC, we ask that you provide a response to this communication in any event. If you find that your agency will not intend to involve itself further, we would appreciate such indication. If you concur that your agency's involvement is relevant to this proceeding, we request your responses on the following items:

1. In that PURPA benefits are sought, applicant states its belief that the project proposes the construction a new dam or diversion as defined in Part 292.202(p); and, we are directed to request, and do here so request, your agency's view on that belief, if any.

2. We request any information you can provide concerning your role as the administering agency, or as a cooperating agency, of any state, regional, or national water resource development plan(s), and your finding, as appropriate, of whether the proposed project is in conflict with said plan(s).

3. We request any information you can provide, as approriate, concerning the probable existence of any rare, threatened and/or endangered species--or candidate species--of vegetation and wildlife in the general and/or project area.

4. We request you provide a description of your continued role, as appropriate, in any other regulatory proceeding related to the proposed project's construction and operation.

5. We request that you review the enclosed material, and offer your comments on the proposed project, identifying what you believe to be additional study efforts beyond those already undertaken; and further, that your requests for additional studies, if any, be *founded pursuant to the requirements identified in 18 CFR, Section 4.38 (b)(4)(i) - (vi).*

This transmittal constitutes the beginning of first-stage agency consultation, as required in the pre-application procedures. Please be advised that, in no less than thirty days nor greater than sixty days from the date of this letter, the applicant intends to hold a meeting at the site with affected agencies, and intends to hold a meeting with the public and affected agencies, at which time the project will be presented and discussed, and comments taken from agencies and the public.

J·U·B

Engineers Surveyors Planners

If you have any questions, please let me know.

Sincerely,

D.W. "Bill" Block, P.E.
Authorized Agent

cc: J.M. Miller Enterprises, Inc. (w/enc.)

enc.

FIRST STAGE CONSULTATION
NOTICE OF ON-SITE MEETING/PUBLIC MEETING

Mr. Einar Wold, Division Chief
National Marine Fisheries Service
Env. & Tech. Services Division
Room 620
Portland, OR 97232

Chief
Interagency Archeological Services
National Park Service
600 Harrison Street
Suite 600
San Francisco, CA 94107

Mr. G. Dean Hilliard
Regulatory Branch
Army Corps of Engineers
Walla Walla District
Walla Walla, WA 99362-9265

Mr. Charles Lobdell
Field Supervisor
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road, Rm. 576
Boise, Idaho 83705

Mr. Will Reid
Fisheries Program Coordinator
Idaho Dept. of Fish & Game
600 S. Walnut
Box 25
Boise, Idaho 83707

Mr. Carl Nellis
Supervisor
Region 4
Idaho Dept. of Fish & Game
868 E. Main St.
Jerome, Idaho 83338

Mr. Tom Green
Dpty. SHPO
Idaho State Historical Society
210 Main St.
Boise, ID 83702

Mr. Loren Holmes, District Manager
Idaho Dept. of Water Resources
220 Shoshone St. East
Twin Falls, Idaho 83301

Mr. Tim Litke, Regional Administrator
Idaho Dept. of Health and Welfare
Division of Environmental Quality
P. O. Box 1626
Twin Falls, Idaho 83303-1626

Ms. Yvonne Ferrell, Director
Idaho Dept. of Parks and Recreation
Statehouse Mail
Boise, ID 83720

Mr. Lee Taylor
Planning and Zoning Administrator
County of Twin Falls
246 3rd Ave. East
Twin Falls, Idaho 83301

Librarian
Filer City Library
219 S. Main St.
Filer, Idaho 83328

Mr. Warren McFall
Idaho Operations Office
Environmental Protection Office
420 W. Washington St.
Boise, Idaho 83702

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
ENVIRONMENTAL & TECHNICAL SERVICES DIVISION
911 NE 11th Avenue - Room 620
PORTLAND, OREGON 97232
503/230-5400 FAX 503/230-5435

F/NWO3

OCT 1 1992

J-U-B Engineers
RECEIVED
OCT - 5 1992
TWIN FALLS, IDAHO

Mr. Bill Block
J*U*B Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, ID 83301

Subject: Proposed Sahko Hydroelectric Project

Dear Mr. Block:

The National Marine Fisheries Service has responsibilities for the protection of marine, estuarine, and anadromous fishery resources and their supporting habitats. Your proposed project pertains to activities that do not appear to affect these resources. Therefore, we have no comment.

In the event we learn that resources within our jurisdiction will be impacted by the proposed project, we will supplement our comments.

Sincerely,

Nicholas E. Iadanza
Chief, Habitat Conservation Branch

cc: FERC Washington D.C.

J·U·B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

October 15, 1992

Mr. Will Reid
Fisheries Program Coordinator
Idaho Dept. of Fish & Game
600 S. Walnut
Box 25
Boise, ID 83707

SAMPLE

RE: Preliminary Permit #11060-000-Idaho
Proposed Sahko Hydroelectric Project
Twin Falls County, Idaho
J.M. Miller Enterprises, Inc., Applicant
NOTICE OF ON-SITE MEETING; NOTICE OF PUBLIC MEETING

Dear Mr. Reid:

On behalf of the referenced applicant, our client, please be advised that an on-site meeting with affected or interested agencies is planned to convene at 1:00 p.m., on November 2, 1992. At that time, we will be pleased to show you/your delegate the proposed project's layout, and discuss matters relevant to its development, to the extent they can be addressed.

This procedure is in further accordance with the FERC requirements for first-stage consultation.

The project site can be reached via:

(Near the north edge of City of Twin Falls, south side of the Snake River) From the intersection of Blue Lakes Blvd. North and Pole Line Road, proceed nine (9) miles west on Pole Line Rd. to County Road 2100 East;

Turn right (north) on 2100 East, and proceed 3.75 miles to the road's terminus near the Snake River canyon's south rim.

We will convene at the road terminus. Although an existing gravel road descends the canyon, parts of the project are only accessible by foot, and some slopes are steep.

We also plan to hold a joint meeting (public and agencies) at 7:00 p.m. that evening in Classroom #1 at Filer High School (on Rte. 30 in Filer). At that time we will further solicit your comments and those of the public, in accordance with first-stage public involvement procedures.

If you have any questions, please let me know.

Sincerely,

D.W. "Bill" Block, P.E.
Applicant's Agent

J-U-B

J-U-B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208-733-2414
FAX: 208-733-9455

October 16, 1992

Director
Office of Hydropower Licensing
Federal Energy Regulatory Commission
801 First St. NE., RM. 1129
Washington, DC 20426

RE: Preliminary Permit #11060-000-Idaho
Proposed Sahko Hydroelectric Project
Twin Falls County, Idaho
J. M. Miller Enterprises, Inc., Applicant
NOTICE OF ON-SITE MEETING, NOTICE OF PUBLIC MEETING

Dear Sir:

In accordance with consultation requirements and on behalf of our subject client, this is to advise you that an invitation to attend an on-site meeting with affected agencies was mailed on October 15, 1992, and that both an on-site meeting with agencies and a meeting with the public has been scheduled for Monday, November 2, 1992. The on-site meeting with agencies will convene at the site at 1:00 p.m. The meeting with the public is planned to convene at the Filer High School at 7:00 p.m. that evening.

This is also to advise you that a Notice of the planned public meeting was published in the local area newspaper, and a certificate of publication is enclosed herewith.

If you have any questions, please let me know.

Sincerely,

D. W. "Bill" Block, P.E.
Authorized Agent

DWB/fw

Enclosure

cc: J. M. Miller Enterprises, Inc.

Legal Notice
Pursuant to the Code of Federal Regulations (CFR), Title 18, Section 4.38(b)(3), and 4.38(g), the public is herby advised of, and invited to attend, a meeting for the following purpose(s):
1) To advise the public of the proposed Sahko Hydroelectric Project, to be located within Twin Falls County, Idaho, and for which the applicant, J.M. Miller Enterprises, Inc., will be seeking permission from the Federal Energy Commission (FERC), to develop, construct, and operate;
2) To solicit from the public any comments regarding the proposed project.
3) To discuss with the public any issues raised at the meeting, which issues shall be addressed to the extent they can at this stage of development.
As of the date of this notice, information about the project is available for public inspection and reproduction at the Filer Public Library, Filer, Idaho. Copies may also be obtained from the applicant's agent, J-U-B Engineers, Twin Falls, Idaho, after compensation for materials and copying efforts. The information shall be available until at least the day of the public meeting.
Limited copies of project information will also be available at the public meeting.
The meeting will take place at seven (7:00) p.m. on November 2, 1992, in Classroom #1 at the Filer High School on US Highway 30, Filer, Idaho.
Publication Date: October 16, 1992.

Affidavit of Publication

№ 24106

STATE OF IDAHO }
COUNTY OF TWIN FALLS } ss.

I, Linda Capps McGuire being first duly sworn upon oath, depose and say that I am Classic Clerk of the TIMES-NEWS, published daily, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for One ~~consecutive~~ Time Only, ~~commencing with the issue dated~~ _____, 19__, ~~and ending~~ with the issue dated October 16, 1992.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 31, 1978, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO
COUNTY OF TWIN FALLS

On this 16 day of October in the year of 1992, before me, a Notary Public, personally appeared Linda Capps McGuire, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Trina R. Feltman
Notary Public for Idaho
Residing at Twin Falls
My commission expires: 5/19/94

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boise Field Station
4696 Overland Road, Room 576
Boise, Idaho 83705

JUB Engineers
RECEIVED
OCT 26 1992
TWIN FALLS, IDAHO

RECEIVED
BOISE, IDAHO

October 21, 1992

D.W. Block, P.E.
JUB Engineers, Inc.
250 South Beachwood Avenue
Suite 1
Boise, Idaho 83709

Subject: Sahko Hydroelectric Project, First-Stage Consultation (503.0400/1-4-93-SP-2)

Dear Mr. Block:

The U.S. Fish and Wildlife Service (Service) has reviewed information provided with your letter to us dated September 22, 1992, initiating first-stage consultation pursuant to the Federal Power Act, as amended, for the proposed Sahko Hydroelectric Project. This acknowledges initiation of the first stage of consultation. Your letter includes five items for our response. The Service is providing response in part now, and will complete our comments following the meeting on site.

We recognize the applicant will seek benefits under the Public Utilities and Regulatory Policy Act (PURPA). We concur that, based on the information provided, this project constitutes a new dam or diversion.

Enclosed please find a list of threatened, endangered, candidate, or proposed species of plants or animals which may be found in the project area. By way of a copy of this letter we are providing the Federal Energy Regulatory Commission with the enclosed list. It is the responsibility of the Commission to meet the intent of Section 7 of the Endangered Species Act should this lead to an action on their part.

The Service is concerned about the project's potential impacts to riparian wetlands within and downstream of the project area. You will be expected to address this and other issues in preparation of your draft application. The Service will develop a complete list of recommendations after the onsite meeting that you have scheduled for November 2, 1992 at 1 p.m.

If you have any questions, please contact Ted Koch of this office at (208) 334-1931.

Sincerely,

for Allison Blackhaas

Charles H. Lobdell
Field SUpervisor

Enclosures

cc: IDFG, HQ, Program Coordination, Boise
IDFG, Region IV, Jerome
FWS-FWE, Portland
FERC-OHL, (w/enclosure) Washington, D.C.

AS REQUESTED
LISTED AND PROPOSED ENDANGERED
AND THREATENED SPECIES, AND CANDIDATE
SPECIES, THAT OCCUR WITHIN THE FEDERAL ENERGY REGULATORY COMMISSION
SAHKO HYDROELECTRIC PROJECT

DATE: October 21, 1992
PROJECT NAME: Sahko Hydro Project
SPECIES LIST NO. FWS 1-4-93-SP-2

LISTED SPECIES	COMMENTS
Bald Eagle (Haliaeetus leucocephalus)	Wintering area

PROPOSED SPECIES

Snake River Physa
(Physa natricina)

Idaho Springsnail
(Fontelicella idahoensis)

Utah Valvata Snail
(Valvata utahensis)

Bliss Rapids Snail
(undescribed)

Banbury Springs lanx
(Lanx sp.)

CANDIDATE SPECIES

Pygmy Rabbit (C2)
(Brachylagus idahoensis)

GENERAL COMMENTS:

C2 = Category 2 Taxa for which information now in possession of the U.S. Fish and Wildlife Service indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat are not currently available to support proposed rules. Further biological research and field study may be needed to ascertain the status of taxa in this category.

IDAHO FISH & GAME
600 South Walnut
P.O. Box 25
Boise, ID 83707-0025

October 30, 1992

J-U-B Engineers
RECEIVED
NOV - 3 1992
TWIN FALLS, IDAHO

Mr. William Block
JUB Engineers, Inc.
250 South Beachwood Avenue
Boise, Idaho 83709

Re: Sahko Hydroelectric Project
STAGE ONE CONSTRUCTION

Dear Mr. Block:

Idaho Department of Fish and Game (IDFG) personnel have reviewed the Stage One consultation package for the Sahko Hydroelectric Project, FERC No. unassigned. In general, initial review indicates the proposed project would have minimal impacts on fish and wildlife provided the project will utilize only existing water diversions.

IDFG personnel have expressed concerns over the potential loss of existing vegetation in the canyon area. We request that the applicant conduct vegetative sampling to document species and quantity of existing vegetation.

We request the final Exhibit E not contain provisions for improved recreation access. Currently, limitations on human access provides for wildlife sanctuary within the proposed hydropower site.

I have given below an estimate of expected IDFG expenses as a result of setting project terms and conditions:

Personnel Costs		
Dave Parrish	Five days at $20.00 per day	$100.00
Will Reid	Five days at $25.00 per day	$125.00
Operating		
Travel	10 days at $21.00 per day	$210.00
Vehicle Rental		$500.00

Cecil D. Andrus / Governor
Jerry M. Conley / Director
Equal Opportunity Employer

If you have any questions concerning this response, please contact Mr. Will Reid at 600 South Walnut, P.O. Box 25, Boise, Idaho 83707 or telephone 334-2598.

Sincerely,

Cal Groen

Cal Groen, Chief
Natural Resources Policy Bureau

cc: Reg 4
USFWS (Lobdell)
USBLM (Burley)
Idaho Parks and Recreation (Lucachick)

ATTENDANCE REGISTER 11/2/92 MA

ON-SITE MEETING J.M. MILLER ENTERPRISES

SAHKO HYDROELECTRIC PROJECT PROPONENT

FERC #11060-000-IDAHO

	NAME	REPRESENTING	CITY
1	MARC A. AUTH MA	CONSULTANT/CLIENT	TWIN FALLS, ID.
2	TRACY A. AHRENS TA	JUB ENGINEERS	TWIN FALLS, ID.
3	Ted Koch	USFWS	Boise, ID
4	Loren Holmes	IDWR	Twin Falls
5	Dennis Jones		"
6	Dan Miller	Miller	Twin Falls
7	Robert Flowers	COE	BOISE
8	TIM LITKE	IDHW-DEQ	TWIN FALLS
9			
10			
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20			

11/2/92 MM

ATTENDANCE REGISTER

J.M. MILLER ENTERPRISES, INC
PROPONENT

PUBLIC INFORMATION MTG.

[illegible]

FERC #10660-000 - IDAHO

	NAME	AFFILIATION	ADDRESS
1	MARC S. LUTH	CONSULTANT TO CLIENT	
2	DAVE PARRISH	IDAHO FISH + GAME	BOX 428 JEROME
3			
4	TRACY AHRENS	JUB ENGINEERS	Twin Falls, Id.
5			
6			
7			
8			
9			
10			

United States Department of the Interior

NATIONAL PARK SERVICE
Western Region
600 Harrison Street, Suite 600
San Francisco, California 94107-1372

IN REPLY REFER TO:
L7621 (WR-RRA)

November 2, 1992

J-U-B Engineers
RECEIVED
NOV - 6 1992
TWIN FALLS, IDAHO

D.W. Block, P.E.
J.U.B. Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, ID 83301

Dear Mr. Block:

We have received your request for cultural resource review of the proposed Sahko hydro project, Twin Falls County, Idaho. Unfortunately, we will not be able to review this project. Scheduling and budget constraints for this fiscal year have severely restricted our ability to do undertake environmental reviews. As an alternative, we suggest that you request comments from the Idaho State Historic Preservation Office (610 N. Julia Davis Drive, Boise 83702; 208/334-3847).

Sincerely,

Thomas L. Burge
Chief, Interagency Archeological Services

PROJECT Sahko Hydroelectric Project JOB NO. _____ SHEET _____

DESIGNED _____ DATE _____

ITEM MEMO To FILE CHECKED _____ DATE _____

11-5-92
4:10 PM

I recieved a phone call from Mr Karl Simonson of the BLM office in Burley. Mr Simonson asked about the location of the Project. We reviewed the location over the phone such that he was able to identify the site on his maps. It was then determined that the project site was all on private property.

IDAHO STATE HISTORICAL SOCIETY

CECIL D. ANDRUS, Governor

November 18, 1992

Director
210 Main St.
Boise, Idaho 83702
208-334-2682

Archaeology
210 Main St.
Boise, Idaho 83702
208-334-3847

Education
610 N. Julia Davis Dr.
Boise, Idaho 83702
208-334-2120

Genealogical Library
450 N. 4th St.
Boise, Idaho 83702
208-334-2305

Historic Preservation
210 Main St.
Boise, Idaho 83702
208-334-3847, 3861

Library and Archives
450 N. 4th St.
Boise, Idaho 83702
208-334-3356

Museum
610 N. Julia Davis Dr.
Boise, Idaho 83702
208-334-2120

Old Idaho Penitentiary
2445 Old Penitentiary Rd.
Boise, Idaho 83712
208-334-2844

Oral History
210 Main St.
Boise, Idaho 83702
208-334-3863

Publications
450 N. 4th St.
Boise, Idaho 83702
208-334-3428

J-U-B Engineers
RECEIVED
NOV 20 1992
TWIN FALLS, IDAHO

Mr. D.W. Bill Block
JUB Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, Idaho 83301

RE: Proposed Sahko Hydroelectric Project
Twin Falls County

Dear Mr. Block:

Thank you for providing our office with information on the proposed Sahko Hydroelectric Project located in Sections 12 and 13, T9S, R15E, near the Snake River in Twin Falls County, Idaho. The project will involve the construction an earth-fill embankment and pond area, powerhouse, and transformer pad, and the installation of 1,600 feet of penstock.

After reviewing our records, we recommend that a professional archaeologist inspect the project area for archaeological sites, prior to any ground-disturbing activities. The report documenting the investigations should be forwarded to our office for review.

We appreciate your cooperation. If you have any questions, feel free to contact Suzi Neitzel at 208-334-3847.

Sincerely,

Kenneth J. Swanson
State Historic
Preservation Office

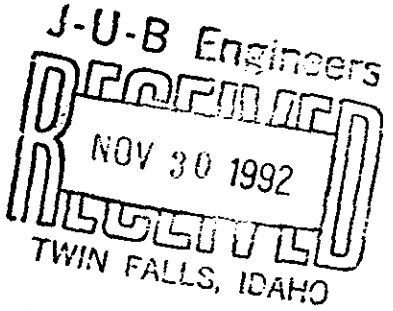
KJS/spn
cc: Ron Corbyn, NPS

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000
Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

November 25, 1992



Mr. D. W. "Bill" Block
J-U-B Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, ID 83301

RE: Proposed Sahko Hydroelectric Project

Dear Bill:

The Department is in receipt of the information you sent concerning the proposed Sahko Hydroelectric Project. It has been reviewed, and we feel that the Department will have direct involvement in certain aspects of the project. Therefore the following comments are being made:

1. The difference in the elevation of the streambed and the normal water surface is 20 feet at the dam. The project will, therefore, be under the Department's safety authority.

2. The project is within the Middle Snake River study and planning area. The reach of the Snake River, to which Kastelu Drain is tributary, is currently under interim protection status by the Water Resource Board. The project site is not subject to the interim protection restrictions.

3. The Department of Water Resources has no information concerning vegetation or wildlife in the project area.

4. The alteration activities within the stream channel may be under the regulatory authority of the Department.

5. Water right application no. 47-08271 has been filed for this project. Additional information has been requested from the applicant to fulfill the requirements of Water Appropriation Rule 4,5,3., but has not yet been received.

Another concern that has been expressed by the public is the rapid change in water levels in the stream, caused by operating the plants by surging to optimize the power production. The effect of this practice should be examined if that method of operation is proposed.

Thank you for the opportunity to comment on the proposed project. Please notify us when you schedule any meetings concerning this project.

Sincerely,

Bob Fleenor

Bob Fleenor
Chief, Resource Protection Bureau

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

J-U-B Engineers
RECEIVED
DEC - 9 1992
TWIN FALLS, IDAHO

December 8, 1992

Mark Auth
J. M. Miller Ent., Inc.
P. O. Box 595
Twin Falls, ID 83303

RE: SAHKO Site Review Comments, Safety of Dam Classification

Dear Mark,

In response to our phone conversations and those with IDWR-State Office I am writing this follow-up letter to provide further information and clarification on the above referenced subjects.

During the tour of the project site, owner representatives pointed out the proposed dam alignment. I expressed concern that there are springs within the foundation footprint of the structure. In addition, I pointed out that there are soil sloughs present in the west-side slope in the vicinity of the proposed abutment. Both of these physical limitations indicate that there will need to be special features incorporated in the structure to accommodate seepage pressures and flows.

Mark, you expressed some confusion over whether IDWR has jurisdiction over the dam based on the limited reservoir capacity (i.e. 9.5 acre feet). Bob Fleenor's letter basically reflected a memo forwarded to the S.O. from Loren Holmes, Southern Region Manager, indicating the the dam is about 20 feet high and therefore under review authority by IDWR-Safety of Dams. Essentially, as we discussed on the phone, dams impounding 10 acre feet or less in low hazard areas are exempt from IDWR Safety of Dams application, review and approval processes. However, I conducted a hazard evaluation of the project and determined that damage to the cropland (erosion) and Snake River (sedimentation), in the event of failure, poses a **significant** hazard. I have forwarded the hazard evaluation to the S.O. for review, the determination may be modified.

I recommend that the applicants submit an application to construct a dam (small or intermediate, as appropriate) to IDWR, regardless of specific rules and regulations interpretation. Reservoir volume is sensitive to embankment alignment and location at the site. To assert that the volume exempts the project from review at this stage, only to have it actually fall

under IDWR jurisdiction after construction, would pose difficulties for the owner to certify construction specifics for use approval. If there is any uncertainty whether the hydraulic height will be 20.0 feet or 20.1 feet, measured from the stream channel bottom to the operating water surface elevation, then an application to construct an intermediate-size dam should be filed. Additional information must also be provided in this case, see appropriate sections in enclosed rules and regulations. I would like to also comment on the item 4, in Fleenor's letter, that stream channel alterations are under Department regulatory authority. Project features such as the sediment retention wall, tailrace discharge facilities, any powerhouse pad work near the existing channel, and road fill encroachment on streams or springs, to name a few potential project features, would require coordination through Terry Blau, Stream Channel Specialist, in this office.

Water right application 47-08271 is being held at this office pending submittal of information required by rule 4,5,3 requested in October, 1991. If you have any questions please contact me.

Sincerely,

Douglas Jones

Douglas Jones, EIT
Engineering Specialist

cc JUB Engrs
IDWR-Safety of Dams

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boise Field Station
4696 Overland Road, Room 576
Boise, Idaho 83705

JUB Engineers
RECEIVED
DEC 14 1992
TWIN FALLS, IDAHO

December 10, 1992

D.W. Block, P.E.
JUB Engineers
250 South Beechwood Avenue
Suite 1
Boise, Idaho 83709

Subject: Sahko Hydroelectric Project, First-Stage Consultation --Incomplete (503.0400)

Dear Mr. Block:

We have reviewed information provided with your correspondence of September 22, 1992, initiating first-stage consultation pursuant to the Federal Power Act, as amended, for the proposed Sahko Hydroelectric Project. We also attended the site visit for the proposed project on November 2, 1992. We have the following comments, in addition to comments provided in our letter dated October 21, 1992.

The Service is concerned about the project's potential impacts to riparian wetlands which may be found within and downstream of the project area. There is inadequate discussion of potential impacts to this resource in the information provided in your letter. Based on information gathered during the site visit, we believe a delineation of wetlands to be affected by the project will be necessary, pursuant to Section 404 of the Clean Water Act. We recommend you identify potential wetland mitigation needs as soon as possible, so that these needs may be included in early planning for development of the project.

We agree with your idea that benefits to fish and wildlife may occur by creating open-water and wetland habitat in an area which is presently upland habitat. This is based on the presumption that upland habitat is not limited in abundance in the area, and no sensitive species use existing upland habitat in the project area. Conversion of existing riparian wetland habitat to open-water habitat is perceived by the U.S. Fish and Wildlife Service as a loss for which mitigation would be necessary.

We also agree that some benefit may be provided by the project from removing sediments and contaminants from irrigation return flow water. We support the idea that close consultation with appropriate agencies must take place to ensure that, (1) development of wetland and open-water habitat enhances, not degrades, existing habitat which would be lost; (2) this new habitat would be managed in such a way as to not impair fish and wildlife populations (i.e.

draw the project down at appropriate times of year for needed maintenance, and monitor sediments to assure there is no accumulation of toxic materials; and (3) adequate bypass flow is provided to ensure that existing riparian and wetland areas which exist downstream from the project area will be maintained.

We suggest you complete studies to identify the following:

(1) Identify all riparian habitat and delineate all wetland habitat within and downstream of the project area, including habitat which will be directly and indirectly impacted from development of this project.

(2) Identify bypass flows which will be necessary to protect and enhance riparian and wetland areas downstream of the project.

(3) Identify mitigation measures necessary for impacts to existing fish and wildlife habitat, including wetlands.

(4) Survey the project area for wildlife species to determine the potential for impacts to those species from the proposed project.

(5) Make available for agency review transmission facility design plans with appropriate protection measures for migratory birds.

Included in the species list sent to you and copied to the Federal Energy Regulatory Commission (FERC) were five species of mollusks (proposed for listing under the Endangered Species Act (ESA) that occur in the Snake River near the proposed project. Based on the distance of the proposed project from the Snake River, we do not anticipate any impacts to these five mollusk species. If, in the FERC's evaluation of the project, a determination is made to the contrary, the Service will work with FERC to provide further consultation under Section 7 of the ESA.

The Service believes the applicant is still in First Stage Consultation for this project, and studies which the Service believes must be completed are recommended. The Service believes First Stage Consultation will be complete when we have a chance to review and comment on the applicant's proposed studies.

If you have any questions, please contact Ted Koch of this office at (208) 334-1931.

Sincerely,



Charles H. Lobdell
Field Supervisor

cc: FERC-OHL
FWS-FWE, Portland
IDFG, Program Coordination, Boise
IDFG, Region IV, Jerome

J•U•B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

March 18,1993

Mr. Charles Lobdell
Field Supervisor
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road, Rm. 576
Boise, ID 83705

Re: Application for License for Minor Water Power Project
Sahko Hydroelectric Project
Twin Falls County, Idaho
J. M. Miller Enterprises, Inc., Applicant

Dear Mr. Lobdell

Please be advised that the referenced project's configuration has changed in several respects, some of which we believe are relevant to the study requests you identified in your letter of December 10, 1992.

Identified below are the specific changes to the project. Of special note, however, is that the Applicant's *proposed water management practice has changed.* We understand from your past communications and your staff's comments during the on-site visit that the originally-proposed water management practice was largely responsible for the concerns you noted, and the study efforts you requested; thus, we find it most responsible to inform you of such changes at the earliest possible time in order to solicit your re-evaluation of the study requests cited.

For your comparative purposes, please find enclosed a revised project location/boundary map which will serve as the basis for the ultimate Exhibt G in the application to the FERC.

The most notable change, serving as basis for others, includes the substitution of a single impulse-type (Pelton) turbine replacing the two units previously identified. Because the original configuration would have operated with narrower ranges of efficiency, it was necessary to construct a larger dam, with a reservoir capacity, in order to better regulate power flows. This scenario would have resulted in a practice of causing a fluctuating water surface to best match turbine performance. In turn, we recognized that a fluctuating water surface could have significant cause-effect relationship with the permanent establishment of wetland habitat, and further relational effect on waterfowl and other wildlife using such newly established habitat.

Please know that, with the installation of an impulse-type, multi-nozzle Pelton wheel, it is now *imperative to best water management practice that any retained water body be maintained at a constant headwater elevation.* In effect , the now-proposed water body–in fact, the entire project–would operate as run-of-stream.

The location and magnitude of the proposed embankment has also changed. Now that it will no longer be intended to fluctuate water surface elevation, the same head can be maintained by relocating the embankment approximately 350 ft. further upstream. This has resulted in the embankment's height extending 10 ft. from ditch invert instead of the originally proposed 20 ft., and with an axis length of 90 ft. rather than 240 ft. Upstream and downstream slopes will remain the same.

The location of the originally proposed concrete retaining wall, designed for collecting topsoil washed from irrigated cropland up-system, has also been moved further upstream, and has been revised to an earth-fill embankment. The new structure will still contain a "notch" overflow spillway; and, its new location will still be capable of adequate collection efficiencies to improve water quality downstream.

In order to accommodate de-watering for sediment removal, two new features have been incorporated with the upstream embankment: A bypass pipe installed through the embankment to de-water the basin to minimal depth; and, a gated, 550 ft. long bypass ditch near the project's upstream boundary in order to prevent flows from entering the basin while it is being cleaned out.

Overall water surface area has changed. Instead of the originally-proposed 1.7 acres, the retained water bodies comprising the forebay (downstream) and the sediment collection basin (upstream) will be 0.6 acres and 0.6 acres, respectively.

Overall volume of the water bodies has changed from 9.5 acre-ft. to 7 acre-ft.

The proposed penstock length has now been increased due to the embankments' relocations. The uppermost section of pipe is now proposed at 700 ft. instead of the previously-identified 350 ft.; that is, overall penstock length has increased from 1,600 ft. to 1,950 ft.. It is also proposed to *bury the entire length* of pipe from the embankment to the powerhouse.

IMPACTS AND MITIGATION

In that water surface elevations will be maintained, we would ask for your re-evaluation of the need for a wetland delineation. Given the new configuration, location, and intended water management policy, we believe that project installation will result in a significantly *enhanced and stabilized* area along the shallow perimeter of the forebay, including the two springs in the project's upper reach.

In order to assure that such mitigation efforts are not incorporated to the project as an after-thought, Applicant will make efforts *during construction* to provide for the placement or removal of fill material in order to establish permanent wetlands and riparian zones along the forebay's periphery. If the FERC conditions the license with a requirement for wetlands creation in the forebay area, Applicant will, during the project's design phase, engage a wetlands specialist and provide detailed topography of the affected area in order to define the placement or removal of fill material which would optimize habitat.

In order to maintain the proposed enhanced habitat, Applicant will take measures to prevent his cattle from grazing in the affected area. This will be accomplished by means of fencing the perimeter of the forebay. Applicant will continue, however, to provide for livestock watering from the springs, and will take measures to "gravity-pipe" spring water to a trough immediately adjacent to the springs but outside

the fenced area. The trough would outfall to approximately the same location as currently inundated by the springs.

In order to further foster the permanent establishment of wetlands along the length of the ditch, Applicant will fence the ditch along its east bank–the west bank is bounded by cropland–from the toe of the forebay's embankment to the location where the ditch transitions to the ravine.

As a result of the embankments' relocations upstream, several natural seeps on either side of the ditch will now contribute to the ditch downstream of the embankment. Given the absence of a fishery, we believe the seeps in this reach, as well as the numerous seeps from the canyon wall providing moisture to the riparian zone in the ravine, will contribute to continuing vegetative growth along the entire bypass reach.

We hope that, through this communication, you now have a sufficient understanding of the envisioned project to re-evaluate the basis for making your requests in previous correspondence. If you have continuing concerns which this communication does not appear to address, I would appreciate your contacting me as timely as possible. We are, in the interim, preparing a draft application reflecting these changes to the project and, in an effort to both move the project forward and recognize procedural propriety, will be submitting it to your office shortly to begin second-stage consultation.

If you have any questions, please let me know.

Sincerely,

D. W. "Bill" Block, P.E.
Authorized Agent

DWB/maa

cc: Jim Miller

enc.: Project Location Map

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boise Field Station
4696 Overland Road, Room 576
Boise, Idaho 83705

J-U-B Engineers
RECEIVED
APR 1[illegible] 1993
TWIN FALLS, IDAHO

April 13, 1993

Mr. D. W. Block, P.E.
J-U-B Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, Idaho 83301

Subject: Sahko Hydroelectric, Preapplication Consultation

Dear Mr. Block:

The U. S. Fish and Wildlife Service (Service) has reviewed your letter of March 18, 1993, which describes several modifications in the plan of development for the Sahko Project. The changes proposed appear to satisfy most of our concerns with this proposal. We will likely have additional comments for you when we have reviewed a complete Draft License application for this project. We cannot insist that you perform studies or engage in pre-application surveys like wetland delineations. The Service only suggests that applicants do these kind of routine surveys to avoid later delays or misunderstanding. We still expect that your application materials will describe existing wetlands and other natural features at the project site and thoroughly discuss how the development of this hydroelectric facility will protect, mitigate and enhance those resources.

Sincerely,

Charles H. Lobdell
Field Supervisor

cc: IDFG, Region 4 (Dave Parrish)
IDFG, HQ, (Will Reid)
EPA, Boise
Corps, Boise (Flowers)

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

APPLICATION FOR LICENSE FOR MINOR PROJECT

(PURSUANT TO PRELIMINARY PERMIT #11060-000-IDAHO)

SAHKO HYDROELECTRIC PROJECT

TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

December , 1993

MICROFILMED
NOV 0 6 1998

RECEIVED
DEC 13 1993
Department of Water Resources
Southern Region Office

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

APPLICATION FOR LICENSE FOR MINOR PROJECT

(PURSUANT TO PRELIMINARY PERMIT #11060-000-IDAHO)

SAHKO HYDROELECTRIC PROJECT

TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

December , 1993

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EXHIBIT F - GENERAL DRAWINGS OF PRINCIPAL PROJECT WORKS

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EXHIBIT G - PROJECT LOCATION MAP

APPENDICES

1 - Request for Water Quality Certification
2 - Records of Consultation with Agencies
3 - Wetlands Delineation Report
4 - Archaeological/Historic Survey Report
5 - Water Appropriation Permit (IDWR)

4.61 (b)

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

APPLICATION FOR LICENSE FOR A MINOR WATER POWER PROJECT

(1) J. M. Miller Enterprises, Inc. (hereinafter, "Applicant") applies to the Federal Energy Regulatory Commission for a license for the Sahko water power project as described hereinafter.

This application for license is being filed pursuant to Preliminary Permit (Project No. 11060-000-Idaho) issued June 18, 1991.

(2) The location of the project is:

State:	Idaho
County:	Twin Falls
Nearby Town:	Filer
Stream:	Kastelu Drain, an irrigation flow return

(3) The exact name, address and telephone number of the Applicant are:

J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83303

Tel.: (208) 622-7215

(4) The exact name, address and telephone number of each person authorized to act as agent for the Applicant in this application are:

D. W. "Bill" Block, P.E.
J-U-B Engineers, Inc.
800 Falls Ave.
Twin Falls, ID 83301

Tel.: (208) 733-2414

(5)The Applicant is a corporation organized under the laws of the State of Idaho and is not claiming preference under section 7(a) of the Federal Power Act.

(6)(i) The statutory or regulatory requirements of the state in which the project would be located that affect the project as proposed with respect to the bed and banks and the appropriation, diversion and use of water for power purposes, and with respect to the right to engage in the business of developing, transmitting and distributing power and in any other business necessary to accomplish the purposes of the license under the Federal Power Act are:

A. Title 42, Chapters 1 and 2, Idaho Code, addresses the appropriation of water for beneficial use within the State of Idaho. The right to use such water is gained through application to the Idaho Department of Water Resources (IDWR) for a water appropriation permit. On issuance of permit and subsequent demonstrated beneficial use of the water, a vested water right (license) for power generation is issued.

B. Title 36, Chapter 9, Idaho Code, deals with the protection of fish in Idaho waters and Section 36-906 provides for a requirement of suitable fish screening devices and fish-ways to be constructed at all power sites to specifications of the Idaho Department of Fish and Game (IDFG). Given the project's location and character as an irrigation drain, discussions with IDFG will identify whether screens will be required.

C. Title 50, Chapter 11, Idaho Code, grants to Idaho counties the right to establish Planning and Zoning Commissions and grants regulatory authority to counties to govern building standards. A conditional use permit must be obtained from Twin Falls County prior to construction.

(ii) Steps which the Applicant has taken or plans to take to comply with the statutory or regulatory requirements cited above are:

A. Applicant filed with the Idaho Dept. of Water Resources an application to appropriate water for power production and other uses (#47-08271, priority 4/24/91). The application has been approved, and a copy is included as Appendix 5.

B. Discussions with IDFG staff (pers. comm. W. Reid, 4/28/92) indicate that because of the stream's character--as an irrigation waste-water drain--and the project's location at the Snake River canyon's rim, fish screens will not be required.

C. At the appropriate time during the project's design, Applicant will apply to Twin Falls County Planning and Zoning Commission for necessary construction permits.

D. Applicant has requested a Water Quality Certification from the Idaho Department of Health and Welfare, Division of Environment; a copy of the request is included as an Appendix.

7) **BRIEF PROJECT DESCRIPTION**

Location of Proposed Facilities

Embankment:	SE 1/4 of NE 1/4, Section 13, T. 9S, R. 15E, B.M.
Powerhouse:	NE 1/4 of NE 1/4, Section 13, T. 9S, R. 15E, B.M.

The proposed project will develop energy potential at the Kastelu drain, an irrigation water return approximately three miles northwest of Filer, Idaho.

The proposed project will entail the construction of:

a) an earth-fill embankment containing:

- *i)* an overflow spillway; and
- *ii)* a bypass pipe;

b) an earth-fill embankment, downstream of embankment *a)* above, containing:

i) a concrete intake structure protected by trash racks;
ii) an emergency overflow spillway; and
iii) a bypass pipe;

c) a gated earthen ditch, bypassing the embankment *a)* above;

d) a 24 in. dia. steel penstock;

e) a masonry-block powerhouse containing:

i) a single turbine/generator set;
ii valves, controls and appurtenances;

f) an outdoor transformer on a concrete pad;

g) an underground length of three-phase, primary transmission lines extending from the powerhouse to the transformer;

h) a switchyard enclosing a dead-end structure;

i) a new section of overhead, three-phase transmission lines connecting to Idaho Power Company-owned facilities.

Materials, dimensions, and capacities are identified in Exhibit A attached hereto.

(7)(i) Proposed installed generating capacity: 500 kilowatts (kW)

(ii) Check appropriate box:

/ / Existing dam

/ x / Unconstructed dam

/ / Existing dam, major modified project

(Note: Given the proposed embankments' dimensions and retention capacities, the structures are not considered "dams" in the context of the rules and regulations of the Idaho Dept. of Water Resources.)

(8) Lands of the United States affected (shown on Exhibit G):

		Name	Acres
(i)	National Forest		0
(ii)	Indian Reservation		0
(iii)	Public Lands under Jurisdiction of:	NA	0
(iv)	Other	NA	0
(v)	Total U.S. Lands		0

(vi) Check appropriate box:

/ x / Surveyed land

/ / Unsurveyed land

(9) Construction of the project is planned to start within 12 months of license issuance, subject to compliance with pre-construction articles of license, and is planned to be completed within 24 months from license issuance or within 24 months of compliance with pre-construction articles of license.

4.32(a)(1)

STATEMENT OF PROPRIETARY INTEREST

All real property within the project boundary is owned by:

J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83303

All proprietary interests necessary for said development, construction and operation shall be held and maintained by the Applicant.

4.32(a)(2)(i)

IDENTIFICATION OF COUNTIES IN WHICH THE PROJECT WOULD BE LOCATED

Twin Falls County
P.O. Box 126
425 Shoshone N.
Twin Falls, Idaho 83303

Attn.: County Clerk

Tel.: (208) 736-4000

4.32(a)(2)(ii)

POLITICAL SUBDIVISIONS IN WHICH THE PROJECT WOULD BE LOCATED

The project is located in the outlying township of:

City of Filer
300 Main St.
Filer, ID 83328

4.32(a)(2)(iii)

IDENTIFICATION OF IRRIGATION OR DRAINAGE DISTRICTS, OR SIMILAR SPECIAL PURPOSE POLITICAL SUBDIVISIONS IN WHICH THE PROJECT WOULD BE LOCATED, OR WHICH OWN, OPERATE AND MAINTAIN FACILITIES THAT WOULD BE USED BY THE PROJECT

None

4.32(a)(2)(iv)

OTHER POLITICAL SUBDIVISIONS IN THE PROJECT'S GENERAL AREA MOST LIKELY TO BE INTERESTED IN, OR AFFECTED BY, THE PROJECT

None

4.32(a)(2)(v)

INDIAN TRIBES AFFECTED BY THE PROJECT

None

4.32(a)(3)(i)

STATEMENT OF NOTIFICATION

Applicant or its agents (including, but not limited to, its agent in this Application proceeding) has made, either at the time of or before the filing of this Application, a good faith effort to give notification by certified mail of the filing of this Application for License to:

(A) Every property owner of record having interest in the property within the bounds of the project; and

(B) All local political subdivisions having a population of at least 5,000 people and which are located within 15 miles of the project; and

(C) all Federal, state and local agencies that Applicant believes would likely be interested in or affected by this Application.

Included are:

City Clerk
City of Twin Falls
321 Second Ave. East
P.O. Box 1907
Twin Falls, ID 83301 Tel.: (208) 736-2271

and

(See Service List)

4.32(a)(3)(ii)

SAMPLE LETTER OF NOTIFICATION

(Date)

(Addressee)

Re: Notice of Filing

Dear (Addressee):

Pursuant to the Code of Federal Regulations (CFR), Title 18, Section 4.32(a)(3)(i), and on behalf of J. M. Miller Enterprises, Inc., this is to advise you that an Application for License for the proposed Sahko Hydroelectric Project is being filed with the Federal Energy Regulatory Commission.

The exact name, address and telephone number of the Applicant are:

J. M. Miller Enterprises, Inc.
P.O. Box 595
Twin Falls, ID 83303

Tel.: (208) 622-7215

Enclosed is a copy of the Exhibit "G" (map of the project) which is part of the Application for License being filed.

Sincerely,

(Signatory)

4.32(a)(4)(i),(ii)

VERIFICATION

This Application for License for the Sahko Hydroelectric Project, a minor water power project, is executed in the

State of Idaho)
County of Twin Falls)

for: J. M. Miller Enterprises, Inc., Applicant

by: D. W. Block, P.E., Applicant's Agent
c/o
J-U-B Engineers, Inc.
800 Falls Ave.
Twin Falls, ID 83301

being first duly sworn, deposes and says that he is agent for the above-named Applicant; that the contents of this Application for License for the Sahko Hydroelectric Project, a minor water power project, are true to the best of his knowledge or belief.

by: _____
D. W. Block

Subscribed and sworn to before me, a Notary Public of the State of Idaho this 10th day of December, 1993

by: _____
Notary Public

/SEAL/

(My commission expires 12/1/94)

4.32(b)(1)

CERTIFICATE OF SERVICE

Copies of the forgoing Application for License have been served upon the following parties:

Secretary
Federal Energy Regulatory
Commission
825 N. Capitol St. NE
Washington, DC 204226

Mr. G. Dean Hilliard
Regulatory Branch
Army Corps of Engineers
Walla Walla District
Walla Walla, WA 99362-9265

Director
Office of Hydropower Licensing
Federal Energy Regulatory
Commission
801 First St. NE, Rm. 1129
Washington, DC 20426

Mr. Warren McFall
Idaho Operations Office
Environmental Protection Office
420 W. Washington St.
Boise, ID 83702

Regional Engineer
Portland Regional Office
Federal Energy Regulatory
Commission
1120 SW Fifth Ave., Ste. 1340
Portland, OR 97204

Chief
Interagency Archaeological Services
National Park Service
600 Harrison Street
Suite 600
San Francisco, CA 94107

Mr. Einar Wold, Division Chief
National Marine Fisheries Service
Env. & Tech. Services Division
1002 NE Holladay St.
Room 620
Portland, OR 97232

Mr. Charles Lobdell
Field Supervisor
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road, Rm. 576
Boise, ID 83705

Mr. Will Reid
Fisheries Program Coordinator
Idaho Dept. of Fish & Game
600 S. Walnut
Box 25
Boise, ID 83707

Mr. Carl Nellis, Supervisor
Region 4
Idaho Dept. of Fish & Game
868 E. Main St.
Jerome, ID 83338

Mr. Robert M. Yohe II, Dpty. SHPO
Idaho State Historical Society
210 Main St.
Boise, ID 83702

Mr. Loren Holmes, District Manager
Idaho Dept. of Water Resources
220 Shoshone St. East
Twin Falls, ID 83301

Mr. Tim Litke
Regional Administrator
Idaho Dept. of Health and Welfare
Division of Environmental Quality
601 Pole line Rd., Suite 2
Twin Falls, ID 83301

Ms. Yvonne Ferrell, Director
Idaho Dept. of Parks and Recreation
Statehouse Mail
Boise, ID 83720

Mr. Lee Taylor
Planning and Zoning Administrator
County of Twin Falls
246 3rd Ave. East
Twin Falls, Idaho 83301

Librarian
Filer City Library
219 S. Main St.
Filer, Idaho 83328

4.32(b)(3)(i)

AVAILABILITY OF INFORMATION

A copy of this application shall be kept available to the public at the following location:

Filer City Library
219 Main St.
Filer, ID 83328

4.32(b)(3)(ii)

INFORMATION AVAILABILITY RE: NATIONAL HISTORIC REGISTER ELIGIBILITY

Disclosures and references to significant archaeological and/or Native American cultural sites, if any, have and/or shall be deleted in copies of the application which Applicant makes available to the public.

4.32(b)(4)(i)-(iv), (5)

AVAILABILITY OF INFORMATION TO THE PUBLIC

In addition to the location previously mentioned, copies of the application may also be available at the addresses of the governmental agencies identified on the Service List herein; and, a copy of the application may be obtained through the Applicant after reimbursement of reasonable costs of reproduction.

4.32(b)(6)-(9)

PUBLICATION OF NOTICE OF FILING

Within 14 days after filing this application for license with the Federal Energy Regulatory Commission, Applicant will cause to be published a notice in the local newspaper of the Twin Falls area, which notice shall inform the public of this application filing, to-wit:

NOTICE

Pursuant to CFR 18, 4.32 (b)(6), take notice that an application for license for the proposed Sahko Hydroelectric Project, a minor water power project, was filed with the Federal Energy Regulatory Commission (FERC) on (*date inserted*). The application was filed by J. M. Miller Enterprises, whose address is P.O. Box 595, Twin Falls, Idaho 83303. The project is located on the Kastelu drain, an irrigation water return, and will include the new construction of 1) Two earth-fill embankments, each with an overflow spillway and a bypass pipe; 2) a concrete intake structure; 3) a steel penstock; 4) a masonry-block powerhouse enclosing a turbine-generator and appurtenances; 5) a tailrace channel; 6) a step-up transformer on a concrete pad; 7) an enclosed switchyard; and 8) three-phase primary transmission lines to connect with Idaho Power Company-owned lines.

Proposed installed generating capacity is 500 kilowatts (kW). It is intended to sell the energy generated by the project to the Idaho Power Company.

A copy of the application is available for public inspection at the Filer City Library. A copy of the application can also be obtained from the Applicant's Agent after reimbursement for reasonable costs for reproduction. Any additional scientific studies requested by any party must be so requested by (insert 45 days from date of filing), and such request must be filed with the FERC in accordance with its regulations; and, a copy must be sent to the Applicant. The FERC will publish further notice soliciting public participation if the application is found acceptable for filing.

(Publication Date: _____)

EXHIBIT A

DESCRIPTION OF THE PROJECT

AND

PROPOSED MODE OF OPERATION

4.61(c)

EXHIBIT A

DESCRIPTION OF PROJECT AND PROPOSED MODE OF OPERATION

(1) Project Data

(i)	Number of Generating Units	One
	Auxiliary Units	None
	Capacity of Unit	500 kW
	Total Installed Capacity	500 kW
	Provisions for Future Units	None
(ii)	Hydraulic Turbine Type	Pelton (4 nozzle)
(iii)	Mode of Operation	Run-of-ditch
(iv)	Estimated average annual energy generation	1,178,000 kWh
(v)	Estimated average head	328 ft.
(vi)	Intake Forebay	
	Surface Area	0.6 acres
	Volume	3 acre-ft.
	Normal Surface Elevation	3390 ft. msl
(vii)	Sediment Collection Basin	
	Surface Area	0.6 acres
	Volume	4 acre-ft.
	Normal Surface Elevation	3393.5 msl
(viii)	Estimated hydraulic capacity of plant (cfs)	20 cfs

Exhibit A
(cont'd.)

(ix) Sizes, Capacities, and Construction Materials

Embankments	Forebay	Sediment Collection
Construction	Earth-fill	Earth-fill
Elevation (stream invert)	3381 ft. msl	3387.5 ft. msl
Elevation (crest)	3394.5 ft. msl	3397 ft. msl
Length (crest)	110 ft.	80 ft.
Width (crest)	12 ft.	12 ft.
Slope (upstream)	3:1	3:1
Slope (downstream)	2:1	2:1
Intake Structure		
Construction		Concrete
Elevation (floor)		3384 ft. msl
Dimensions (w x l x h)		8 ft. x 10 ft. x 10.5 ft.
Pipeline/Penstock		
Material		Steel
Diameter		24 in.
Length		1,950 ft.
Powerhouse		
Construction		Masonry-block
Elevation (floor)		3054 ft. msl
Dimensions (w x l)		25 ft. x 50 ft.
Tailrace		
Construction		Rock Rip rap
Elevation (Tailwater)		3051 ft. msl
Dimensions (w x l x h)		6 ft. x 3 ft. x 30 ft.(l)

Exhibit A
(cont'd.)

	Switchyard	
	Dimensions	12 ft. x 12 ft.
	Primary Transmission	
	Voltage	34.5 kV
	Length	2,000 ft.
(x)	Estimated Project Cost	$390,000 (1992)

(2) Purpose of Project:

Irrigation water supplement; develop renewable-resource energy for sale to the Idaho Power Company in order to help defray electrical costs of proposed powered irrigation system.

EXHIBIT E

ENVIRONMENTAL REPORT

4.61(d)

EXHIBIT E

ENVIRONMENTAL REPORT

OVERVIEW

The proposed Sahko hydroelectric project will develop the energy potential of irrigation return flows at the so-called Kastelu drain, located approximately three miles northwest of Filer, in Twin Falls County, Idaho. The property within the project boundary is privately-owned, undeveloped and is currently used for cattle-grazing.

The project reach is generally characterized as a draw which directs precipitation and irrigation return flows to the Snake River canyon's south rim. Flows then fall through a steep ravine, which transitions to a relatively flat area prior to the drain's confluence with the Snake River, approximately 0.5 miles beyond the project boundary.

It is proposed to construct an earth-fill embankment at ditch invert elevation 3381 ft. mean sea level (msl). Crest height will be at 3394.5 ft. msl, and the embankment's length along the crest axis will be 110 ft. Upstream and downstream slopes are designed at 3:1 (run:rise) and 2:1, respectively.

The embankment will incorporate a concrete penstock intake structure near its center. The intake structure's floor will be at elevation 3384 ft. msl; and, the box-shaped structure will measure 8.0 ft. wide (along the embankment's axis), 10.0 ft. into the embankment, 10.5 ft. deep, and will incorporate protective trash racks.

The embankment will also incorporate a concrete overflow-spillway channel which will direct flows to a riprapped surface at the embankment's downstream toe, and into the ditch channel.

A second earth-fill embankment will be constructed upstream of the above-referenced embankment. This structure, however, will be installed for the purpose of collecting water-borne sediment from agricultural land upstream of the project. The embankment will be constructed from ditch invert elevation 3387.5 msl, and have a crest height to elevation 3397 msl. Crest width will be 12 ft. and embankment length along its axis will be 80 ft. Upstream and downstream slopes are designed at 3:1 (run:rise) and 2:1, respectively. Upstream and downstream slopes subject to water action will be protected with rip rap over a fabric liner.

The upstream embankment will incorporate a four-foot high, 14-foot wide concrete-capped spillway allowing passage of power flows to the downstream forebay. A check-weir will be installed in the spillway for flow measurement. The spillway's downstream face will be riprapped.

A bypass pipe will be buried through the embankment in order to allow maximum de-watering behind the structure for sediment removal.

In order to prevent irrigation flows or natural run-off from entering the upstream basin during the sediment removal process (see Exhibit E), a ditch approximately two ft. wide, 1.5 ft. deep and 500 ft. in length will parallel the basin to carry flows to the downstream forebay. The bypass ditch, with an entrance invert at 3393 ft. msl, will be gated to divert flows into the basin during normal operations. During sediment removal, the gate will be opened and, by virtue of its lower elevation, will convey flows past the basin to the downstream forebay.

From the downstream embankment impounding the forebay, it is intended to bury a single, steel, 24 in. diameter pipe approximately 700 ft. to its intersection with an existing road accessing the canyon bottom. The penstock will under-cross the road and be buried, if feasible, along the descending road's right side for a distance of approximately 610 ft. At a bend in the road, the pipe will then under-cross the road again and exit at a point where pipe alignment will represent the shortest run down the slope. From this point, it is intended to bury the pipe an additional 640 ft. to the proposed powerhouse location.

The power plant will include a masonry-block structure, approximately 25 ft. x 50 ft., to house the turbine-generator, controls and appurtenances, and provide room for maintenance and repairs.

A concrete pad for the transformer will be constructed adjacent to the powerhouse.

A tailrace channel approximately 6 ft. wide, 3 ft. deep and 30 ft. in length will be excavated from the powerhouse in order to return spent power flows to the irrigation drain. The entire length of the tailrace will be lined with rip rap to its juncture with the existing ditch.

A new section of overhead three-phase distribution lines will be brought to the site by the Idaho Power Company and will extend approximately 2,000 ft. within the project boundary from the power plant to the interconnect point. Any other improvements to Idaho Power Company's existing lines are outside the project boundary.

4.61(d)(2)(i)

DESCRIPTION OF ENVIRONMENTAL SETTING

VEGETATIVE COVER

The proposed project is located in a semi-arid area which receives ten to twelve inches of precipitation annually. Vegetation types have been mapped, and are identified in the following Figure E-1. Natural vegetation in the upper reach is primarily sagebrush, cheatgrass, wheat grass, and other semi-arid species. The flat area through which the ditch extends is heavily grazed and is largely void of vegetation other than short-cropped grasses. Although the general area is void of trees, the upper reach contains approximately one dozen Russian olive trees and an apple tree.

In response to comments and requests of various state and federal agencies (see discussion below under Agency Consultation), a Wetlands Delineation

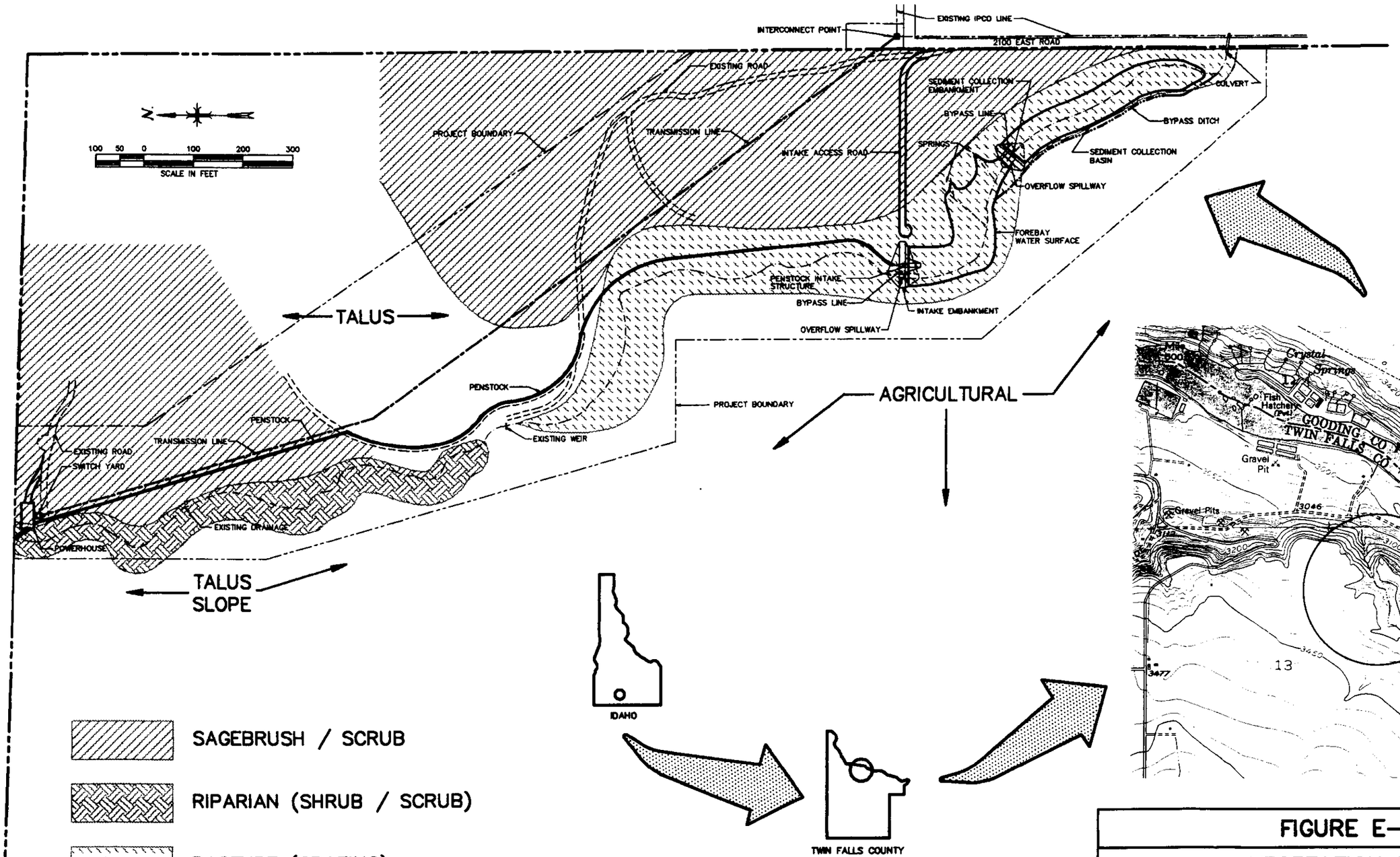


FIGURE E–1

VEGETATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

Report was prepared by Montgomery Watson of Boise, Idaho, and is included as Appendix 3. A graphic delineation of existing wetland vegetation identified in the report is shown in the following Figure E-2. A comprehensive survey of vegetation was also accomplished and is included with the report.

The lower reach of the project (ie, from the first significant fall of water through the ravine) contains thick stands of shrubs and brush, including wild rose, currant, rabbit brush, sagebrush and a variety of forbs. This area is characterized as the only significant existing riparian zone within the project boundary, and includes an approximate twenty foot width on either side of the ditch; however, beyond the zone, the vegetative cover abruptly transitions to desert sagebrush/cheatgrass.

The powerhouse site, once dominated by sagebrush, is largely void of vegetation, having been previously cleared by the owner to make way for a vehicle turn-around and picnic spot. The banks of the drain at this location contain various grasses and one tree.

Rare, Threatened and Endangered Species

Based upon walk-throughs, vegetation survey, and to the best of Applicant's knowledge, there are no rare, threatened and/or endangered species, or candidate species, of vegetation within the project boundary. Correspondence of the US Fish and Wildlife Service (FWS) similarly does not indicate the existence of any listed or proposed endangered and/or threatened species, or candidate species of vegetation.

FISHERY RESOURCES

This project is located past the last use of flows for agricultural irrigated cropland and the ditch does not contain or support a fishery.

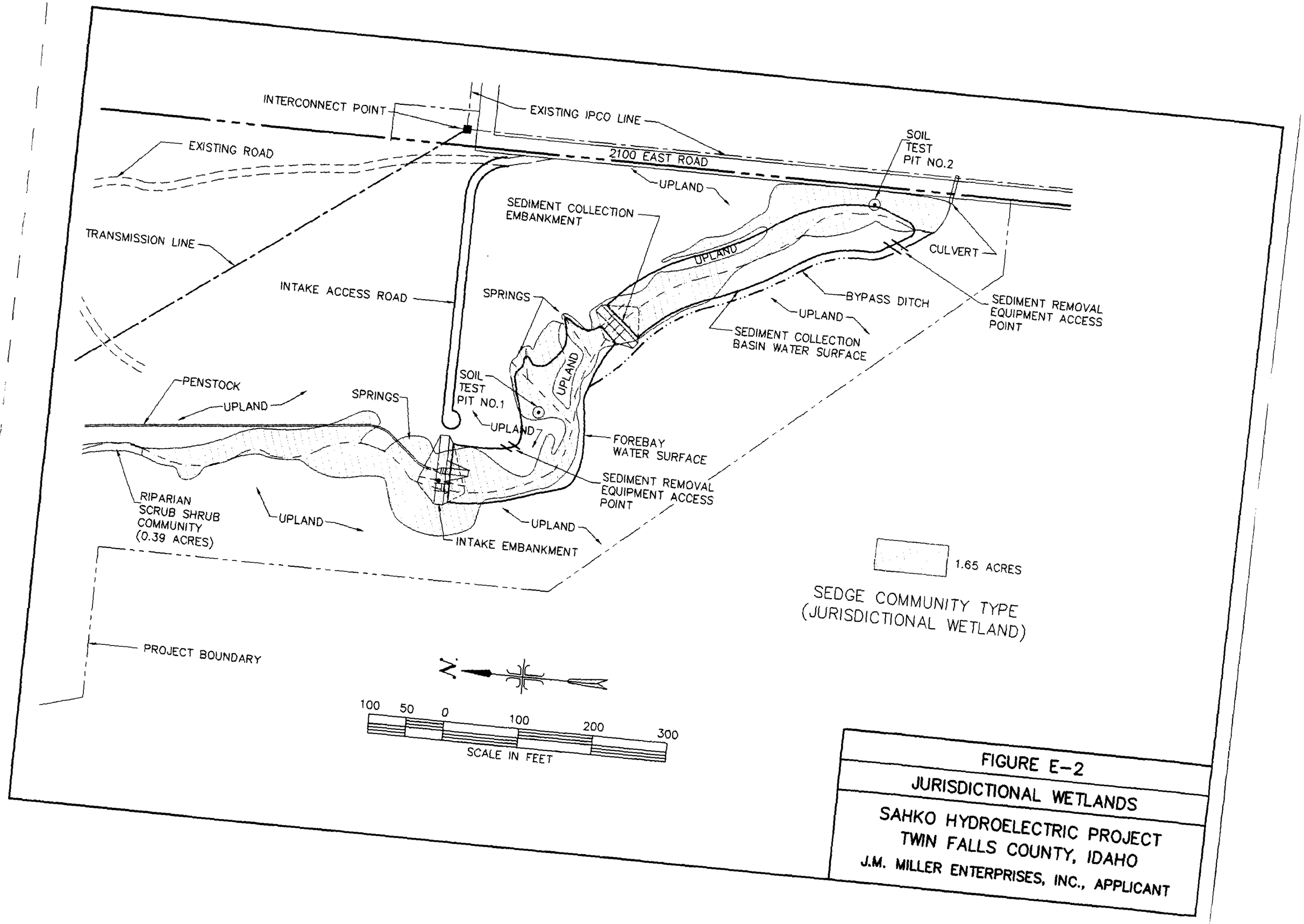


FIGURE E-2

JURISDICTIONAL WETLANDS

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

WILDLIFE RESOURCES

The Snake River in the general vicinity is a wintering area for ducks and geese. The project area, however, presently contains no standing bodies of water, and is not considered to be of use to waterfowl.

A variety of common non-game birds occupy the general area, and expected to also occur in the project area. These include the robin, magpie, several types of sparrow, killdeer, lark, crow, and starling.

Although ring-necked pheasant, mourning dove, Hungarian partridge, and quail are common to the general area, they probably do not range in the project's upper reach due to lack of vegetation or other cover; however, it is probable that the thick brush in the ravine affords some degree of cover to game-birds that may use the area.

Raptors are known to inhabit and use the general vicinity (a pair of golden eagles are known to inhabit the Crystal Springs Hydroelectric Project area one mile away in Cedar Draw Creek canyon). In that a variety of raptors range along the Snake River canyon and adjacent areas, it is not un-expected that raptors may occasionally pass through the project area; however, numerous trips to the site do not indicate any permanent habitation by raptors.

Animals which may be found and are known to exist within the project area include the jackrabbit, cottontail, marmot (rockchuck), ground squirrel, and mice. Other species common to the general vicinity and probably occurring in the project area include the badger, skunk, coyote, and perhaps mule deer.

Rare, Threatened and Endangered Species

From on-site visits and observations, Applicant has encountered no rare, threatened and/or endangered species, or candidate species, of wildlife within the project boundary. Correspondence of the FWS disclosed the possibility of several species occurring in the general area of the Snake River canyon. The

bald eagle probably ranges in the area during winter. With regard to several species of mollusks proposed for listing, the FWS acknowledges that due to the project's distance from the Snake River, no impacts are anticipated from project development.

WATER QUALITY/QUANTITY

Precipitation run-off, two springs within the project boundary, and irrigation returns comprise the flows available to the project. In that almost the entire flow provided during the period April - October is irrigation return, water quality is generally regarded as poor, primarily due to heavy suspended sediment concentrations of agricultural topsoil and fertilizers. The project area's watershed comprises 1,740 acres.

Numerous seeps also exist downstream of the proposed embankment. Several are located in the pasture area, and the left slope of the ravine contains several seeps which provide constant moisture to the riparian zone, and probably account for the more dense vegetation on the left side of the drain in the ravine portion of the project.

Ditch flow volumes have been monitored and recorded since January, 1991. Records are presented herein as Table E-1. The monitoring site was established at the location below the proposed embankment's downstream toe. Flows were monitored and recorded on a weekly basis. Results of the effort indicate that, during the non-irrigation season, virtually the entire flow in the ditch–little more than one cfs–was contributed by two springs near the upstream project boundary, and a smaller spring seeping from the ravine's left wall below the proposed embankment's location.

Based on the monitoring effort, flows available from all sources ranged from a low of 1.1 cfs during the winter to a recorded high of 17.5 cfs during the height of the irrigation season. Design flow for the hydroelectric project is twenty (20) cfs.

TABLE E-1

1991-1992
ACTUAL AVERAGE WEEKLY FLOW DATA
SAHKO HYDROELECTRIC PROJECT

1991			1992		
Week of:		Flow - cfs	Week of:		Flow - cfs
January	2	1.4	December	29	1.6
	8	1.4	January	5	1.6
	15	1.4		12	1.6
	22	1.4		19	1.8
	29	1.4		26	1.9
February	5	1.4	February	2	1.9
	12	1.4		9	1.6
	19	1.4		16	1.4
	26	1.4		23	1.4
March	5	1.1	March	1	1.4
	12	1.1		8	1.4
	19	1.1		15	1.2
	26	1.1		22	1.1
April	2	1.1		29	1.1
	9	1.1	April	5	1.1
	16	2.2		12	8.0
	23	8.0		19	8.0
	30	9.9		26	7.1
May	7	10.4	May	3	6.2
	14	8.9		10	7.5
	21	8.9		17	7.1
	28	11.9		24	7.1
June	4	13.0		31	7.1
	11	15.2	June	7	6.2
	18	16.4		14	7.1
	25	15.2		21	8.7
July	2	16.4		28	8.0
	9	17.5	July	5	6.2
	16	15.2		12	5.8
	23	15.2		19	6.6
	30	11.9		26	7.1
August	6	9.4	August	2	7.1
	13	8.9		9	4.8
	20	8.9		16	7.1
	27	8.9		23	7.1
September	3	8.9		30	7.1
	10	8.9	September	6	7.1
	17	8.9		13	6.6
	24	8.9		20	7.1
October	1	8.9		27	7.1
	8	8.9	October	4	2.5
	15	8.9		11	6.2
	22	7.1		18	6.2
	29	3.5		25	6.2
November	5	3.2	November	1	1.9
	12	3.2		8	1.9
	19	3.2		15	1.4
	26	3.2		22	1.4
December	3	2.5		29	1.4
	10	1.9	December	6	1.4
	17	1.4		13	1.4
	24	1.4		20	1.4
				27	1.4
'91 Weekly Ave:		6.6 cfs	'92 Weekly Ave:		4.4 cfs
			Annual Average:		5.5 cfs

Two springs and several seeps in the project's upper reach mainly comprised the low flows during the winter. Individual contributions of the several seeps throughout the project reach were immeasurable; taken together, however, it is estimated the seeps unavailable to hydropower operations comprise between 0.1 and 0.25 cfs.

LAND USE

The general vicinity is rural, privately-owned, dominated by agriculture, and also provides for some amount of cattle-grazing. Some areas along the Snake River canyon rim remain undeveloped in a natural sagebrush-shrub environment.

The project area's upper reach is bounded on the west by agricultural farmland, and on the east by a sagebrush-shrub environment, used for cattle-grazing. The lower reach is a ravine, undeveloped, and largely un-utilized except for the existence of a gravel road accessing the bottom of the Snake river canyon.

RECREATIONAL USE

As mentioned, the general area is dominated by agriculture and may provide for seasonal game-bird hunting. Given its general character and private ownership, however, recreational pursuits are limited along south side of the Snake River canyon.

The project area similarly provides limited recreational opportunities. The land is privately owned, and contains no features affording recreational opportunities except for a current picnic spot at the powerhouse site.

HISTORIC, ARCHAEOLOGICAL AND CULTURAL RESOURCES

The land surrounding the project area was first opened to agricultural use with the construction of water delivery canals and laterals in the early twentieth century. It is probable that homesteads were established throughout the general area, and it is possible that a sheep-herder type dwelling existed within the project area, probably near the two existing springs in the project's upper reach. Although surface examinations were made in the immediate area, no artifacts were found.

In response to agency comments and recommendations (see discussion below under Agency Consultation), an Archaeological and Historic Survey Report was produced by James C. and Cynthia L Woods, of Twin Falls, Idaho. The report is included as Appendix 4.

In summary, an historic garbage dump site was found adjacent to the project boundary, extending over the canyon rim, and consisted of "...numerous cans, bottles, wire, nails, pieces of equipment, toys, etc. ...". Also discovered near the project area was "...an isolated find consisting of the mid-section of a large, lanceolate point or knife blade made of an opaque, black obsidian..."

No other artifacts were found or are known to exist in the project area.

SCENIC AND AESTHETIC RESOURCES

This assessment is based on observations of topography, vegetative cover, and existing developments in the project area.

Criteria used to ascertain the current aesthetic value in the area of the proposed project included:

- Observer position (generally from public areas)

The only public areas includes a county road accessing the project area. Given the area's terrain and the nearest road's proximity, the project will be largely

unavailable to view by the public. Given the breadth of the Snake river canyon, wide vistas of view are available from the canyon's north rim, and the ravine is visible.

- Frequency of views

The project area is considered to have "low visibility" characteristics in that it is available to view only when the viewer is within the project boundary, or from the Snake River canyon's north rim, approximately 1.5 miles distant. Only a portion of the project area--the ravine--is available to view from the canyon floor.

- View distance

Foreground views are unavailable to the viewer unless the viewer's position is within the project boundary. Middleground and background views of the project are only available from the Snake River canyon's north rim, approximately 1.5 miles distant.

- Screening (by way of vegetation or land form)

Absence of significant vegetation in the project's upper reach provides for limited screening of proposed structures, discussed below. Heavy vegetation in the ravine, however, preclude viewing irrigation flows cascading into the canyon, whether in positions affording foreground, middleground, or background viewing.

- Landscape character

As mentioned, the area's topography prohibits nearby views of the project area, including the proposed impoundment area, and the bypass reach of the ravine, except for their view from the north rim of the Snake River canyon, approximately 1.5 miles distant.

4.61(d)(2)(ii)

IMPACTS OF DEVELOPMENT, AND APPLICANT'S PROPOSED MEASURES TO PROTECT OR ENHANCE RESOURCES, OR MITIGATE ADVERSE IMPACTS

This section presents environmental impacts of the hydroelectric project, and identifies those measures proposed to be implemented to mitigate each potentially adverse impact. Any residual impacts remaining after mitigation are also identified.

VEGETATION RESOURCES

Project construction would result in the unavoidable loss of approximately one acre of grazing pasture and 0.5 acres of sagebrush/scrub in the areas of the proposed forebay and sedimentation collection basin.

Jurisdictional wetlands totaling approximately 0.85 acres would be directly or indirectly affected by the project, and are identified in the following Figure E-3.

With the following described measures proposed by Applicant, project installation should result in a significantly enhanced and stabilized area along the relatively shallow perimeter of the forebay, including the two springs in the project's upper reach.

Less than 0.25 acres of vegetation would be temporarily displaced by the installation of the pipeline segment extending through pasture (700 ft.); no vegetation would be removed for the pipeline segment extending along an existing road benched in the canyon wall (600 ft.); and, approximately 0.3 acres would be temporarily displaced by installation of the penstock descending the slope to the proposed powerhouse site.

Approximately 0.25 acres of vegetation would be temporarily displaced at the powerhouse site. Of this amount, all but the powerhouse area, the tailrace channel, and switchyard area could be re-vegetated.

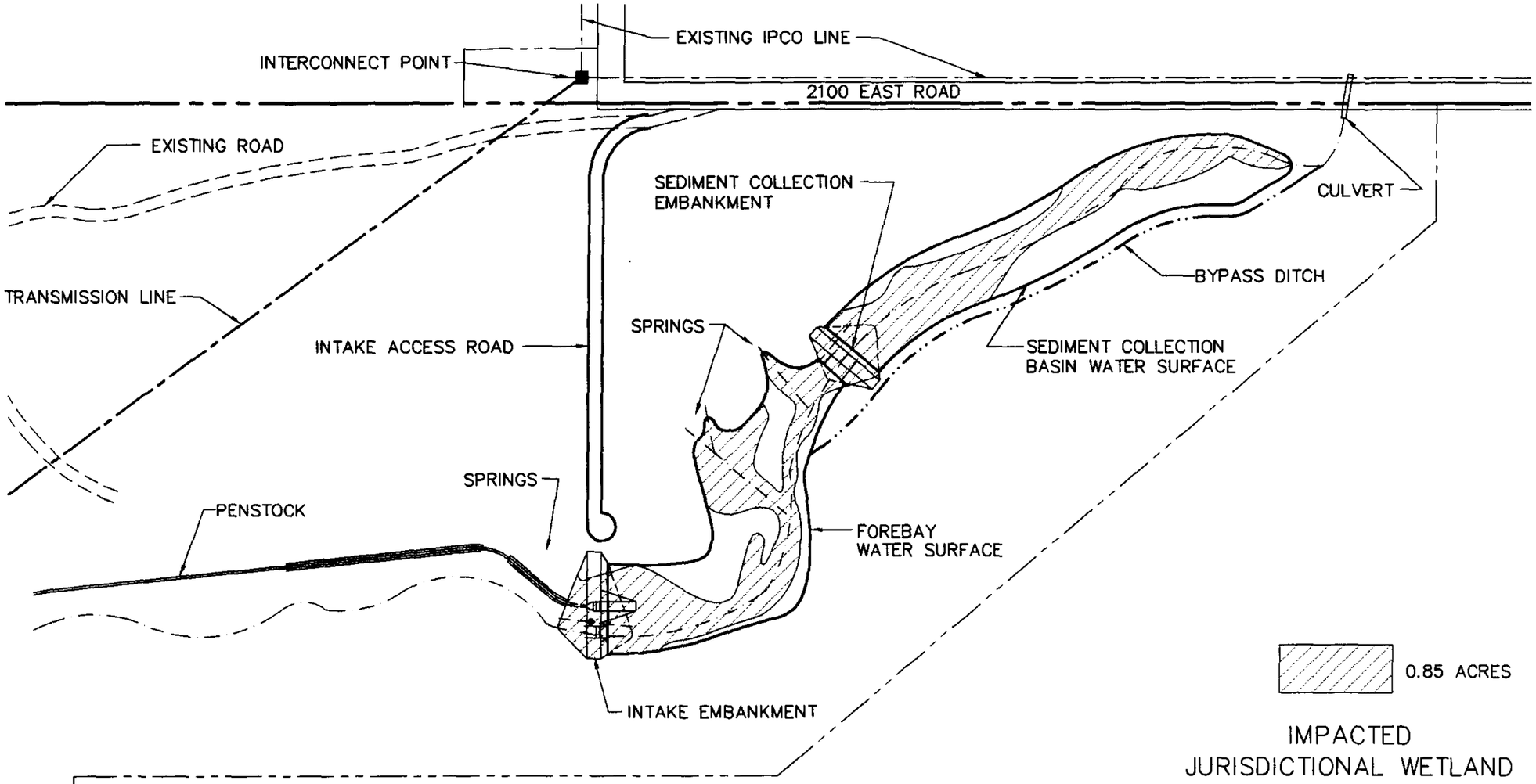


FIGURE E-3

PROJECTED IMPACTS TO JURISDICTIONAL WETLANDS

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J.M. MILLER ENTERPRISES, INC., APPLICANT

As mitigation, Applicant will provide for planting a seed mix along the perimeter of the forebay, which seed mix specification shall be solicited from the resource agency(ies), as appropriate. Applicant will also re-vegetate disturbed areas surrounding the pipeline alignment, and at the powerhouse location. Pipeline alignment will avoid the existing tree growth in the project's upper reach and a single tree at the powerhouse site will be retained.

With its letters of response, the USFWS attached a list of identified sensitive species. The list does not indicate the occurrence of any listed, proposed or candidate species of rare, endangered or threatened vegetation in the project area. It is not expected that any species of concern will be affected by project construction.

A conceptual plan for mitigating unavoidable impacts to jurisdictional wetlands is proposed and is described in the consultant's report in Appendix 3. The mitigation plan is also described in the following Figure E-4. In summary, existing and proposed wetlands surrounding the proposed water bodies will be fenced, and include a 25 ft. buffer strip from the perimeter of normal water surface elevations; this would result in the permanent exclusion of cattle grazing on approximately 2.3 acres. As detailed in the consultant's report, Applicant will also develop and expand wetland habitat within the forebay and sediment retention basin; nesting platforms will be installed around the forebay area; woody debris piles will be strategically placed within the project area; forebay water surface will be maintained at a lower elevation than the two existing spring heads; and, all wetland mitigation efforts will be monitored.

FISHERY RESOURCES

As no fishery exists in the irrigation drain, no adverse, un-avoidable impacts of project construction and operation are applicable to a fishery. With appropriate erosion and sedimentation controls during project construction, there should similarly be no detrimental impacts to any fishery past the project in the Snake River approximately 0.3 miles distant.

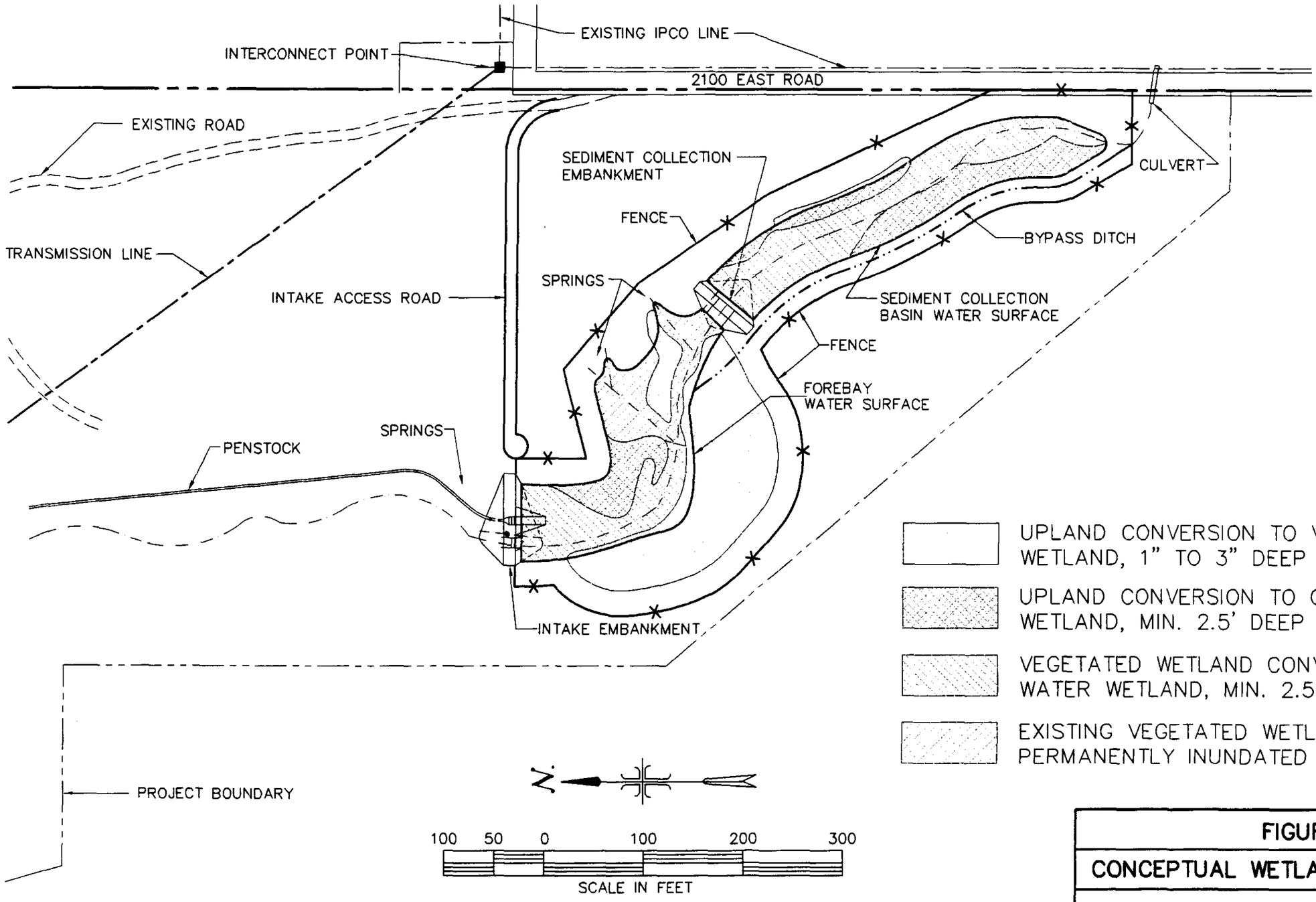


FIGURE E-4

CONCEPTUAL WETLAND MITIGATION PLAN

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

In that the sediment collection features of the project will provide a means of improving water quality in the reach, there will be some beneficial effect on water quality–and, thus, the fishery–in the Snake River past the project.

WILDLIFE RESOURCES

A terrestrial habitat loss of approximately 1.5 acres would result from project construction and operation, largely due to displacement by the two proposed embankments, inundation by the new forebay and sediment collection basin; and, to a lesser extent, displacement by the powerhouse and tailrace channel.

An approximate two-acre increase in aquatic/wetlands habitat would occur with project completion due to the proposed water bodies. It is expected that, with proper re-seeding and the installation of erosion control measures, there will be a positive and beneficial impact to water-fowl species, which would probably avail themselves to the area in the future.

If the Commission conditions the license with a requirement for wetlands creation in the forebay area, Applicant will, during the project's design phase, engage a wetlands specialist and provide detailed topography of the affected area in order to define the placement or removal of fill material which would optimize habitat. Actual placement or removal of material would take place during construction of the embankments.

In order to maintain the proposed enhanced habitat, Applicant will take measures to prevent his cattle from grazing in the affected area. This will be accomplished by means of fencing the perimeter of the forebay. Applicant will continue, however, to provide for livestock watering from the existing springs, but in a manner which will avoid cattle encroaching on developed/enhanced wetland areas around the proposed water bodies.

Several natural seeps on either side of the ditch will contribute to the ditch downstream of the embankment. Given the absence of a fishery, it is expected the seeps in the upper reach, as well as the numerous seeps from the canyon

wall providing moisture to the riparian zone in the ravine, will contribute to continuing vegetative growth along the entire bypass reach.

Dust and noise resulting from the use of heavy machinery and other human activity could temporarily disrupt wildlife in the area; however, it is unlikely that wildlife would permanently leave the general area because of the noise, and would probably become acclimated to temporary construction activity, albeit at a "safe" distance.

Project operations are similarly not expected to permanently displace the area's wildlife, which will likely become acclimated to the structures' existence and the low levels of noise from the turbine's operation. Given the scale of development and the numerous other commercial operations in the immediate project area (gravel mining operations, a larger nearby hydroelectric project, a relatively large commercial fish hatchery, all of which are within less than one mile), project operations would not be expected to make any significant contribution to existing noise levels.

Raptors will probably continue to range through the project area, and a valid concern exists about the potential for raptor electrocution due to the new section of power line extending from the powerhouse to the upper reach of the project. Subject to specifications provided by resource agencies, Applicant will "raptor-proof" new transmission facilities within the project boundary.

WATER QUALITY AND QUANTITY

An approximate 400-foot length of intermittent watercourse will be displaced by the proposed forebay. An approximate 500 ft. length will also be displaced by the proposed sediment collection basin. Given the average width of the ditch–approximately three ft.–it is estimated that actual displacement will be less than one-tenth (0.1) acre.

The impoundment created by the embankment will have a water surface area of approximately 0.6 acres at normal headwater elevation 3390 msl. Because of

the turbine type (i.e., a Pelton wheel is capable of efficiently operating over a wide range of flow), and Applicant's desire to maintain a maximum head condition, a constant water surface elevation will be maintained at all times.

Of important note is the proposed sedimentation collection basin's function as a settling pond for topsoil-laden, nutrient-rich irrigation return flows. The basin's volume will approximate that of the forebay, and the embankment height has been calculated to consider both flow detention, plus the amount of sediment projected for collection annually. The embankment will have two feet of freeboard in order to restrict passage of sediment downstream into the forebay.

Information for estimating sediment accumulation and pond dimensions were obtained from data compiled in the Middle Snake River Water Quality Study - Phase 1 Final Report (February 1992, prepared by Charles E. Brockway, P.E. and Clarence W. Robison, P.E.) The report discloses that the Kastelu drain was selected as a water quality sampling station and was classified as an irrigation return flow. Monitoring of the drainage was conducted from June, 1990 through July, 1991. The sampling location was at the canyon floor approximately 100 yards prior to the drain's confluence with the Snake River. During the monitoring period a sediment concentration as high as 3,110 milligrams per liter (mg/l) was recorded. The proposed sediment collection basin is sized to provide an approximate two-hour detention based on an estimate of sediment accumulation over a one-year period.

With a two-hour detention time, research shows that approximately seventy percent of the sediment loading will be removed (i.e., "settled out"). A similar amount of removal of phosphates attached to the sediment is expected to occur.

The following Tables E-2 and E-3 depict the estimated annual removal (tonnage) of sediment and phosphates, respectively.

Applicant will periodically remove the sediment deposits accumulating behind the upstream embankment. It is expected, then, that the upstream collection basin will need to be occasionally drained for this purpose. In that such draw-downs will range below the top of the penstock, and could result in a virtually

TABLE E-2

ESTIMATED ANNUAL SEDIMENT REMOVAL
SAHKO HYDROELECTRIC PROJECT

Date	Days	Flow cfs	Sediment Conc.* mg/l	Sediment Load lbs	Sediment Acc. tons	
1/2/91	9	1.4	16	1,056	0.5	
1/8/91	6	1.4	24	1,056	1.1	
1/15/91	7	1.4	16	822	1.5	
1/22/91	7	1.4	8	411	1.7	
1/29/91	7	1.4	9	462	1.9	
2/5/91	7	1.4	10	513	2.2	
2/12/91	7	1.4	6	308	2.3	
2/19/91	7	1.4	2	103	2.4	
2/26/91	7	1.4	2	103	2.4	
3/5/91	7	1.1	2	84	2.5	
3/12/91	7	1.1	7	293	2.6	
3/19/91	7	1.1	12	503	2.9	
3/26/91	7	1.1	20	817	3.3	
4/2/91	7	1.1	27	1,132	3.8	
4/9/91	7	1.1	14	587	4.1	
4/16/91	7	2.2	1	83	4.2	
4/23/91	7	8.0	247	74,173	41.3	
4/30/91	7	9.9	492	183,337	132.9	
5/7/91	7	10.4	580	227,078	246.5	
5/14/91	7	8.9	514	172,712	332.8	
5/21/91	7	8.9	452	151,879	408.8	
5/28/91	7	11.9	608	273,391	545.5	
6/4/91	7	13.0	679	332,746	711.8	
6/11/91	7	15.2	750	430,401	927.0	
6/18/91	7	16.4	1,220	752,935	1,303.5	
6/25/91	7	15.2	1,690	969,551	1,788.3	
7/2/91	7	16.4	1,300	802,318	2,189.4	
7/9/91	7	17.5	910	602,615	2,490.7	
7/16/91	7	15.2	1,170	671,426	2,826.4	
7/23/91	7	15.2	1,430	820,632	3,236.8	
7/30/91	7	11.9	1,147	515,756	3,494.6	
8/6/91	7	9.4	864	305,975	3,647.6	
8/13/91	7	8.9	625	210,009	3,752.6	
8/20/91	7	8.9	386	129,702	3,817.5	
8/27/91	7	8.9	285	95,596	3,865.3	
9/3/91	7	8.9	183	61,491	3,896.0	
9/10/91	7	8.9	164	54,938	3,923.5	
9/17/91	7	8.9	144	48,386	3,947.7	
9/24/91	7	8.9	137	46,034	3,970.7	
10/1/91	7	8.9	130	43,682	3,992.5	
10/8/91	7	8.9	98	32,929	4,009.0	
10/15/91	7	8.9	66	22,177	4,020.1	
10/22/91	7	7.1	38	10,129	4,025.2	
10/29/91	7	3.5	10	1,318	4,025.8	
11/5/91	7	3.2	10	1,189	4,026.4	
11/12/91	7	3.2	10	1,189	4,027.0	
11/19/91	7	3.2	9	1,070	4,027.5	
11/26/91	7	3.2	8	951	4,028.0	
12/3/91	7	2.5	8	755	4,028.4	
12/10/91	7	1.9	8	574	4,028.7	
12/17/91	7	1.4	8	411	4,028.9	
12/24/91	7	1.4	8	411	4,029.1	
	365.0	6.6	318	8,058,198	4,029.1	Total Tons
					70%	Removal
					2,820.4	Tons Removed

*Interpolated from data in Middle Snake River Water Quality Study Phase I, February 1992

TABLE E-3

ESTIMATED ANNUAL PHOSPHATE REMOVAL
SAHKO HYDROELECTRIC PROJECT

Date	Days	Flow cfs	Phosphate Conc.* mg/l	Phosphate Load lbs	Phosphate Acc. tons	
1/2/91	9	1.4	0.00	0.0	0.00	
1/8/91	6	1.4	0.00	0.0	0.00	
1/15/91	7	1.4	0.00	0.0	0.00	
1/22/91	7	1.4	0.00	0.0	0.00	
1/29/91	7	1.4	0.00	0.0	0.00	
2/5/91	7	1.4	0.00	0.0	0.00	
2/12/91	7	1.4	0.00	0.0	0.00	
2/19/91	7	1.4	0.00	0.0	0.00	
2/26/91	7	1.4	0.00	0.0	0.00	
3/5/91	7	1.1	0.00	0.0	0.00	
3/12/91	7	1.1	0.02	0.8	0.00	
3/19/91	7	1.1	0.04	1.6	0.00	
3/26/91	7	1.1	0.04	1.8	0.00	
4/2/91	7	1.1	0.05	2.0	0.00	
4/9/91	7	1.1	0.03	1.3	0.00	
4/16/91	7	2.2	0.01	1.0	0.00	
4/23/91	7	8.0	0.23	70.3	0.04	
4/30/91	7	9.9	0.46	169.5	0.12	
5/7/91	7	10.4	0.67	260.7	0.25	
5/14/91	7	8.9	0.61	204.0	0.36	
5/21/91	7	8.9	0.35	116.6	0.41	
5/28/91	7	11.9	0.48	215.4	0.52	
6/4/91	7	13.0	0.63	308.5	0.68	
6/11/91	7	15.2	0.78	447.6	0.90	
6/18/91	7	16.4	1.11	683.8	1.24	
6/25/91	7	15.2	1.44	823.8	1.65	
7/2/91	7	16.4	1.00	615.9	1.96	
7/9/91	7	17.5	0.56	370.8	2.15	
7/16/91	7	15.2	0.96	552.1	2.42	
7/23/91	7	15.2	1.36	782.8	2.82	
7/30/91	7	11.9	1.05	471.2	3.05	
8/6/91	7	9.4	0.73	259.2	3.18	
8/13/91	7	8.9	0.56	188.7	3.27	
8/20/91	7	8.9	0.39	131.4	3.34	
8/27/91	7	8.9	0.30	99.1	3.39	
9/3/91	7	8.9	0.20	66.9	3.42	
9/10/91	7	8.9	0.19	64.5	3.46	
9/17/91	7	8.9	0.19	62.2	3.49	
9/24/91	7	8.9	0.16	52.8	3.51	
10/1/91	7	8.9	0.13	43.3	3.53	
10/8/91	7	8.9	0.08	26.5	3.55	
10/15/91	7	8.9	0.03	9.7	3.55	
10/22/91	7	7.1	0.01	3.9	3.55	
10/29/91	7	3.5	0.00	0.0	3.55	
11/5/91	7	3.2	0.00	0.0	3.55	
11/12/91	7	3.2	0.00	0.0	3.55	
11/19/91	7	3.2	0.00	0.0	3.55	
11/26/91	7	3.2	0.00	0.0	3.55	
12/3/91	7	2.5	0.00	0.0	3.55	
12/10/91	7	1.9	0.00	0.0	3.55	
12/17/91	7	1.4	0.00	0.0	3.55	
12/24/91	7	1.4	0.00	0.0	3.55	
	365.0	6.6	0.29	7,109.6	3.55	Total Tons
					70%	Removal
					2.49	Tons Removed

*Derived from data in Middle Snake River Water Quality Study Phase I, February 1992
(Total Phosphate minus Ortho Phosphate)

complete de-watering of the impoundment, Applicant would intend to consult with affected resource agencies as to the timing of draw-downs for removing sediment. It is planned, however, that sediment removal will occur annually, during the winter and a low inflow period. In any event, inflows will bypass the basin via the referenced proposed bypass ditch.

It is expected that some sediment will also accumulate in the forebay. It is therefore planned to remove sediment in the forebay every five years. During the clean-out effort in the forebay, the power plant will be shut down, and the bypass pipe in the embankment will be opened to drain the impoundment. It is planned to excavate the accumulated sediment at the lowest elevations, then begin filling the basin concurrent with further excavation. It is anticipated the time necessary for the sediment removal effort will coincide with the re-fill rate, approximately 24 hrs. During this time, most disturbed sediment should settle out. As necessary, the power plant will postpone start-up until sediment has settled in the forebay.

Potentially unstable slope areas along the pipeline route would be identified in pipeline design studies. Mitigation measures for areas identified as potentially unstable would include temporary buttressing during construction, and back-fill and complete re-vegetation following construction. Netting and terracing would be used to prevent slope failure where necessary.

The proposed powerhouse will be constructed away from the stream.

The proposed tailrace will be lined with rip rap to its junction with the existing ditch.

As mitigation during and after construction, a substantial erosion control program shall be established, and shall include the use of:

- net covers, where necessary, to impede soil loss on steep slopes;
- straw bales to control runoff;
- use of timed-release fertilizer in areas where the fertility of disturbed soil may hinder establishment of vegetation; and

- terracing of disturbed slopes, if necessary, in order to prevent wash-out during severe storms.

After construction is complete, monitoring of erosion control measures shall be done by the contractor. Where greater-than-normal amounts of silt are reaching the shoreline, control measures shall be increased to a point where runoff is of normal quantity and quality.

Seeps from springs downstream of the lower embankment will not be affected by the project, and will continue through the reach, providing moisture to the vegetation in the ravine.

LAND USE

Approximately 1.2 acres will be inundated by the project's forebay and sediment collection basin. Of this amount, approximately one-quarter is desert/sagebrush terrain, with the remainder being grazed pasture; as a result, this land will no longer be available to grazing.

In order to promote the permanent establishment of wetlands in the project area, Applicant will restrict livestock grazing by fencing, as described above.

HISTORIC, ARCHAEOLOGICAL AND CULTURAL RESOURCES

As no resources of cultural or historic import are known to exist in the project area, it is not anticipated that any direct or indirect adverse impacts will occur due to project construction or operation.

The archaeological report identified a garbage dump in the project area, crossed by a segment of existing road. Applicant will refrain from making any alterations or improvements to that segment of road (see following correspondence of the SHPO).

Applicant will notify the SHPO immediately if any archaeological remains are discovered during project construction.

SCENIC AND AESTHETIC RESOURCES

As a result of project construction, a new water body will be created. In considering the surrounding area and the lack of standing water bodies, this is not viewed as an adverse impact due to project development.

Although relatively small, and in a set-back position relative to the canyon wall, the embankment may be visible from across the Snake River canyon (ie, from its north rim) approximately 1.5 miles distant. While this might otherwise be viewed as an interruption in the continuity of the canyon wall's profile, it is noteworthy than this section of the Snake River canyon is marked in numerous places by draws and canyons associated with tributary streams. The most noticeable feature of the project, then, may be the earthen embankment as viewed from across the river; however, from the only practical viewpoint (i.e., on the north rim of the canyon), the structure would be in the background view, and located farther up the reach of the draw. Also given the numerous other commercial developments in the canyon–notably, several farms, two other hydroelectric projects, a fish hatchery and a gravel pit–it is not expected this new construction will distinguishably alter the only available view-shed. The embankment structure will not be visible from below.

In order to minimize the potential for an adverse alteration of the view-shed, however, Applicant will minimize any tree-cutting downstream of the embankment in order that existing tree-growth will serve as further screening the embankment from the view-shed.

The penstock will be buried wherever feasible, and disturbed areas will be re-vegetated.

Due to the powerhouse's proximity to a large broad-leaf tree and other shrubs, it is expected the existing vegetative growth will serve to screen the structure.

RECREATIONAL RESOURCES

In that the land within the project boundary is privately owned, and given its historic use for cattle-grazing and agriculture, there currently exists virtually no opportunity for recreational use.

Because the pond will probably serve as a new haven to waterfowl, Applicant may allow restricted hunting access during the fall.

4.61(d)(2)(iii)

CONSULTATION WITH AGENCIES

FIRST-STAGE CONSULTATION

Described below is a summary record of communications between the Applicant and various state and federal agencies during stage one-consultation. Documentation is included as Appendix 2 herein. Applicant's responses immediately follow each letter's summary and are identified in italics enclosed by parentheses. Communications by Applicant or Applicant's authorized agent are collectively referred to as those of the Applicant.

By letter of September 22, 1992, Applicant transmitted an "information package" to each agency identified in the foregoing Service List. The package included information about the project as proposed at that time (serving as the basis for Exhibit A); a description of the affected environment, anticipated impacts and proposed measures for mitigation or enhancement of resources (collectively serving as the basis for Exhibit E); and, a project location/boundary map (serving as the basis for Exhibit G).

An October 1, 1992 letter of the National Marine Fisheries Service (NMFS) responded to the first-stage information package with "no comment".

(The project is located away from any marine, estuarine, or anadromous fishery resources to which the agency has responsibility for protection).

By letter of October 15, 1992 Applicant advised each government agency of its intent to hold an on-site meeting; and, Agent also advised of a meeting with the agencies and the public to seek additional comments, said on-site meeting and meeting with the public planned for November 2, 1992.

On October 16, 1992, a Legal Notice was published in the area's local newspaper, the Twin Falls, Idaho *Times-News* noting the purpose and schedule of the intended meeting.

By letter of October 16, 1992, Applicant advised Commission staff (OHL Director) of the planned meetings, and enclosed an Affidavit of Publication of the Legal Notice.

An October 21, 1992 letter of the US Fish and Wildlife Service (FWS) advised of the proposed project's potential impact to riparian wetlands in the project area; and, the FWS also enclosed an identification of listed and proposed endangered and threatened species, and candidate species, that occur in the *general* area.

An October 30, 1992 letter of the Idaho Dept. of Fish and Game (IDFG) indicated the project "would have minimal impacts on fish and wildlife provided the project will utilize only existing water diversions..."

(Applicant intends to use only existing flows and springs in the irrigation system [i.e., no new sources of water are contemplated for hydropower use]. Further, Applicant has applied to the Idaho Dept. of Water Resources for a maximum flow of 20 cfs for hydropower and other purposes.)

IDFG also indicated concerns about the "potential loss of existing vegetation in the canyon area...", and requested a vegetative sampling to document species and quantity of existing vegetation.

(Vegetation types are identified in the foregoing Figure E-1. Since the transmittal of the first-stage information package, however, Applicant has revised the plan for penstock construction, which is now intended to be buried wherever possible to avoid compromising the canyon rim's stability (as with construction along the existing access road). As indicated in the forgoing "Impacts..." section, Applicant will re-seed areas of disturbance.

Vegetation at the powerhouse and tailrace locations will be unavoidably and permanently displaced. Total permanent displacement will be less than 0.25 acres. Any other areas disturbed incidental to powerhouse and tailrace construction will be re-seeded. With the installation of the embankment and attendant forebay, Applicant will create approximately the same amount of permanently established wetlands vegetation.)

IDFG also requested that the project proposal *not* contain provisions for improved recreation access.

(Because installation of some project features [i.e., forebay and sediment collection basin] will provide for increased wildlife sanctuary, Applicant does not intend to make any recreational access improvements, and the entire area will continue to be fenced; further, Applicant will restrict hunting opportunities on the property.)

On November 2, 1992 an on-site meeting with interested agencies was convened. In addition to the Applicant and the Applicant's consultants, the attendees included:

Ted Koch (USFWS)
Robert Flowers (US Army, Corps of Engineers)
Loren Holmes (Idaho Dept. of Water Resources)
Douglas Jones (Idaho Dept. of Water Resources)
Tim Litke (Idaho DHW, Division of Environmental Quality)

A copy of the Attendance Register is included as an appendix.

In accordance with published legal notice, a meeting with the public was convened at the Filer, Idaho Public High School on the evening of November 2, 1992, In addition to the Applicant and the Applicant's consultants, attendees included:

Dave Parrish (Idaho Dept. of Fish and Game)

No members of the public attended. A copy of the Attendance Register is included as an appendix.

A November 2, 1992 letter of the National Park Service/USDOI disclosed that the NPS would be unable to review the project due to scheduling and budget constraints; and, the NPS suggested requesting comments from the Idaho State Historic Preservation Office (SHPO).

(In September, 1992, Applicant also transmitted an information package to, and solicited comments from, the Idaho SHPO)

On November 5, 1992, Mr. Karl Simonson of the US Bureau of Land Management (BLM) contacted the Applicant's engineer by telephone and, after reviewing his maps, acknowledged that the project is located entirely on privately-owned land.

A November 18, 1992 letter of the Idaho State Historic Preservation Office (SHPO) recommended an on-site inspection by a professional archaeologist "...prior to ground-disturbing activities."

(The project area in its upper reach comprises a bowl-shaped pasture which has historically be heavily grazed by livestock. The project's lower reach is a steeply incised ravine representing the majority of the project's 328 ft. head. Applicant has never encountered any artifacts of interest in the project area, and questions value of expense for conducting an on-site inspection; however, if so required by the Commission as an article of license, Applicant will arrange for an inspection. In any event, during construction Applicant will notify the SHPO if any artifacts of interest be uncovered and will cease work in the immediate area until a professional archaeologist is brought in to survey the area, as appropriate.)

A November 25, 1992 letter of the Idaho Dept. of Water Resources (IDWR), State Office (Boise) indicates that the department "...will have direct involvement in certain aspects of the project." Reasoning included the fact that the embankment, proposed to have a 20 ft. height, would come under the department's safety authority.

(Applicant would note that the IDWR's on-site observations and its comments contained in the letter relied on an originally-envisioned project including a 20 ft. high dam impounding a 9.5 acre-ft. storage reservoir; however, because of changes in the turbine type, the relocation of the proposed embankment, and a revised water management philosophy [i.e., the project would no longer provide for water surface fluctuations] the project has been revised to now include nine ft. high embankment impounding a forebay with a volume of three acre- ft.; as a

result, Applicant believes a re-evaluation by IDWR would be appropriate, notwithstanding the issue of its involvement under safety authority responsibilities if that were its continued finding.)

IDWR also acknowledged that the project is not subject to the interim protection restrictions embodied in the Middle Snake River Plan adopted by the Idaho Water Resources Board, and presently before the Idaho Legislature.

(Applicant agrees that the project lies outside the area regarded in the Middle Snake River Plan; further, it was the Idaho Water Resource Board's (IWRB) conclusion in the Plan that investigation of feasibility of projects as proposed herein [i.e., projects located on irrigation returns] should be encouraged.)

Another concern raised by the IDWR referenced the potential for "...rapid change in water levels in the stream, caused by operating the plants by surging to optimize the power production..."

(Applicant does not intend to create any rapid water level changes; rather, it is planned to maintain a constant water level behind the embankment, and operate the project in a strict run-of-stream mode.)

A December 8, 1992 follow-up letter of the Dept. of Water Resources (IDWR), Southern Region Office (Twin Falls) indicated that department staff made a determination that the originally-proposed project would pose a "significant hazard" in the event of a failure. It was also noted that the "...determination may be modified..."

(In light of several fundamental changes to the project's magnitude and configuration, Applicant believes it appropriate for the IDWR to reconsider its evaluation and resulting hazard determination. Several factors warrant such re-consideration:

- *Absence of commercial or habitable structures below the project in the canyon area which could be potentially affected by a structural breach;*
- *Decrease in the overall height of the embankment (from 22 ft. to 13.5 ft.)*

- *Decrease in the water body's depth (from 20 ft. to nine ft.)*
- *Decrease in the impoundment's volume from 9.5 acre-ft. to 3 acre-ft.*
- *Relocation of the embankment approximately 350 ft. further upstream which, combined with it decreased magnitude, would result in a significant reduction of potential impacts associated with the water body's attenuation in the event of breach or failure.*

Applicant will make final comments regarding IDWR's dam safety authority, hazard evaluations and hazard determinations after receiving IDWR's further comments in light of project changes identified in the draft application)

A December 10, 1992 letter of the US Fish and Wildlife Service (FWS) identified several concerns about the project, which concerns were largely precipitated by the project's originally-proposed magnitude, configuration, and water management philosophy; that is, a fluctuating water surface elevation would not necessarily cause permanently established wetlands, or promote a constancy of conditions for wildlife which would begin using the new land forms/water bodies; according, the FWS requested a wetlands delineation of the project area

(Discussions between the Applicant's consultant and FWS staff indicated the referenced wetlands study request was largely precipitated by a proposed plan to fluctuate the initially-proposed storage impoundment's water surface. As a result of the discussions, Applicant transmitted a letter on March 18, 1992 (see appendix) to the FWS, wherein the extent of project revisions were identified. Applicant believes that, with the FWS understanding of the revised project's configuration, magnitude and mode of operation, it would be more appropriate to address FWS concerns when they are most current, and responsive to the draft application.)

An April 13, 1993 letter of the FWS responding to Applicant's communication referenced above concurred that project changes appeared to satisfy most of its concerns.

SECOND-STAGE CONSULTATION

By letter of April 23, 1993 a draft application for license was sent to the agencies identified in the Service List.

Similar in format to first-stage consultation, described below is a summary record of communications between the Applicant and various state and federal agencies during second-stage consultation. Documentation is included as Appendix 2 herein. Applicant's responses immediately follow each letter's summary and are identified in italics enclosed by parentheses. Communications by Applicant or Applicant's authorized agent are collectively referred to as those of the Applicant.

A May 14, 1993 letter of the IDFG indicates that the proposed project would have minimal impacts to fishery resources, and that planned wetland mitigation should compensate any wildlife impacts.

(The conceptual mitigation plan in Appendix 3 includes provisions for establishing wetland habitat beneficial to waterfowl, installing nesting platforms, and the strategic placement of woody debris piles in the project area.)

A May 24, 1992 letter of the IDFG raised concern about "...major construction activity (i.e., blasting)..." impacts on a bald eagle nest upstream of the project.

(Applicant will limit such activity, if any, to time periods which will not disturb nesting.)

IDFG recommended a 50-ft. set-back zone bordering the impoundment in order to avoid over-grazing by cattle in the area.

(As part of the wetland mitigation plan [see Appendix 3], Applicant will provide for a minimum 25 ft. buffer around the proposed water bodies. It is important, however, that the cattle continue to be able to access water from the existing springs. To that end, Applicant will provide for a method of stock-watering which will seek to avoid impacts to existing or proposed wetlands in the impoundment areas.)

IDFG recommended wetland creation as condition of license.

(After the date of IDFG's letter, Applicant retained a wetlands specialist to conduct a wetlands delineation, identify impacts, and propose mitigation.)

IDFG recommended a post-and-pole fencing method to exclude livestock-grazing.

(That method has been proposed in the conceptual wetland mitigation plan.)

IDFG acknowledged beneficial impacts of project development, including wetlands creation, water quality improvement, improved grazing management, and improved waterfowl habitat.

A June 2, 1993 letter of the Idaho SHPO re-iterated a need for an archaeological/historic survey of the project area.

(In response to SHPO comments, Applicant conducted a survey in August, 1993 [see Appendix 4].)

A September 23, 1993 letter of the SHPO acknowledged receipt of the referenced Survey Report. Further, it agreed the isolated find off-project did not qualify for National Register eligibility and required "...no further consideration". SHPO recommended that a road segment passing through a referenced dump site not be altered or improved.

(Applicant is familiar with the referenced road segment, and concludes that no alterations or improvements will be necessary as part of project development. Further, Applicant will immediately notify the SHPO if an archaeological remains are discovered during project construction.)

By a June 30, 1993 letter of the Dept. of the Army, Corps of Engineers, Walla Walla District (CoE), it was determined that jurisdictional wetlands would be affected by placement of fill material in the irrigation drain; thus, a 404 permit would be required prior to project construction.

(At the appropriate time during the project's final design Applicant will apply for the requisite permit.)

The CoE indicated the need for a wetlands delineation.

(Applicant has conducted a wetland delineation, and the results are included as Figures E-2 – E-4, and Appendix 3.)

The CoE requested the plan's transmittal to its Boise Regulatory Field Office.

(The agency is included on the Service List, and will receive a copy of this application for license, including the wetlands report, at the time it is submitted to the Commission.)

The CoE recommended a future condition that, once the wetland delineation is approved, other jurisdictional wetlands affected, above and below the project, be identified.

(As part of the mitigation effort's detailed design, other jurisdictional wetlands will be identified, as appropriate. Applicant would note, however, that immediately above the project boundary, flows pass through a metal culvert under-crossing a road, and it is not expected that any jurisdictional wetlands will be directly of indirectly affected by project installation. Similarly, all flows from the project will re-enter the drain, and there is not expected to be any diminishment of jurisdictional wetlands from the downstream project boundary to the drain's convergence with the Snake River. The only anticipated change in the character of flows leaving the project will be a reduction of suspended sediment due to its retention and removal in the project's upper reach.)

CoE indicated the need for mitigation measures for any potential losses of wetlands due to project development, citing recommendations for replacement ratios.

(Applicant has proposed mitigation efforts, summarized above and detailed in the Wetlands Delineation Report. Further, as noted in the Wetlands Report summary:

"...The ratio of wetlands mitigation to permanent wetland impacts is 2.27:1, based upon total wetlands impacts. The ratio of wetland mitigation to permanent wetland impacts is 7.42:1, not including 1) existing livestock-grazed wetlands (to be) converted to open water habitat or inundated wetland area (0.73 acres), and 2) existing livestock-grazed wetlands upstream of the forebay embankment which would be fenced to exclude livestock grazing (0.31 acres)."

In addition, Applicant would note that, since studies began on the project, a pivot sprinkler system has been installed on farmland adjacent to project, also owned by the Applicant. The end-gun of the sprinkler system projects water into the project area, and it is estimated that additional habitat will establish on its west side, encompassing approximate 1.5 acres, although this addition has not been considered in the ratios identified above.

With the proposed measures incorporated to the project, Applicant believes it has been most responsive in addressing project-related wetlands issues, and anticipates relatively significant improvements in the area.)

The CoE inquired about the location of borrow sites for construction of facilities.

(Some excavation will occur for installation of the penstock. To the extent this material meets the specification for use in constructing the embankments, it will be used for that purpose. Also, some material will be excavated for creating a topography conducive to the establishment of permanent wetlands. This material would also be used for embankment construction, as appropriate. Applicant intends to use additional material taken from locations adjacent to the project, on lands owned by the Applicant. Although several alternative locations are under consideration, all sites are upland locations, and none include jurisdictional wetlands.)

The CoE inquired about the location of disposal areas to receive spoil from excavation.

(That material which is determined unsuitable for use in construction of facilities will be deposited at sites adjacent to the project, on lands owned by the

Applicant. All sites are located in upland areas, or on cropland, and none include jurisdictional wetlands.)

The CoE inquired about the location of the disposal area to receive the accumulated sediment removed from behind the embankments.

(Applicant has numerous alternative locations to dispose of the accumulated sediment, all located on adjacent cropland owned by the Applicant. The sediment will be worked into the soil at these locations, none of which includes jurisdictional wetlands.)

The CoE inquired as to Applicant's assurance that establishment of vegetation planted along the penstock alignment will be successful.

(Successful establishment, in the context of exercising erosion control, should be accomplished through the use of native plant seed mix and, as necessary, net coverings.)

The CoE inquired about measures to reduce visual impacts within the Snake River canyon.

(As mentioned in the foregoing "Impacts..." section, the project's visibility is low, given the project area's recessed topography, the intent to bury the entire penstock, and the current screening of tree growth at the powerhouse site. Since Applicant's initial proposal, however, the embankments' locations have moved several hundred feet upstream, and are now even further removed from view. It is expected the downstream face of the embankments will become re-vegetated with native plants, as will the penstock alignment; and, the powerhouse facility will incorporate earth-tone colors conducive to the surrounding area, notwithstanding screening afforded by existing tree growth.)

A July 14, 1993 letter of the US Fish and Wildlife Service (FWS) acknowledged foreseeing few difficulties with the project proposal; however, the agency sought clarification on several issues.

The FWS requested more precise definition, in the form of a scaled map, of areas to be protected by fencing.

(Since the FWS letter, a Wetland Delineation Report/Conceptual Mitigation Plan was produced to more precisely identify areas affected. The requested map is now included as the forgoing Figure E-4.)

The FWS recommended specification of methods to dispose of accumulated sediment removed from behind the embankments.

(Figure E-4 identifies entry and egress sites for equipment necessary for sediment removal. These sites consider the locations and character of existing and proposed habitat so as to minimize or avoid encroachment on areas developed as part of the project proposal. Sediment removal will probably be accomplished with a small back-hoe and dump truck.)

The FWS cited a preference to have an approved plan for wetland mitigation prior to licensing.

(Since the date of the FWS letter, the Conceptual Wetland Mitigation Plan has been produced. With transmittal of the license application to all parties on the Service List, the FWS will receive a copy of the referenced plan.)

The FWS recommended specification of measures taken during sediment removal to avoid disturbance of established wetlands habitat.

(As previously mentioned, entry and egress locations will be established. Sediment removal will be accomplished during off-irrigation season or during the winter, at which time the sediment collection basin will be temporarily de-watered for the sole purpose of sediment removal. Equipment operators will be instructed to work within certain limits when removing sediment, and entering or leaving the de-watered basin

Applicant would note, however, that optimal channel hydraulics will need to be maintained for efficient power plant operation. To that end, vegetative growth

which may tend to emerge on accumulated sediment which compromises efficient hydraulics will need to be removed, as appropriate.)

The FWS inquired about how vegetation will be maintained downstream of the embankments, and at the location of two natural springs upstream of the forebay.

(Numerous seeps occur downstream of the proposed embankment locations, and flow year round. Several seeps also emanate from the canyon wall in the ravine portion of the project. Vegetation in these areas survive even when the drain is dry during the non-irrigation season. With construction of the project, the seeps will continue to provide moisture for vegetation past the project and in the ravine. A pivot sprinkler system was recently installed on cropland immediately adjacent (west) of the project, and the end-gun projects additional water into the area downstream of the embankment locations, providing additional moisture for vegetation along the ditch, and in the riparian area in the ravine.)

The FWS recommended raptor-proofing new transmission lines.

(Raptor-proofing techniques will be incorporated to new transmission line poles within the project boundary.)

A July 21, 1993 letter of the Idaho Dept. of Water Resources (IDWR) acknowledged the reduction in magnitude of the embankment structures initially proposed during first-stage consultation; further, IDWR acknowledged that the reduction in height and capacity now categorized the development below the minimum size of "dam" as defined by the agency.

The reduction in size also reduced the downstream hazard classification *(determined in IDWR's letter of November 25, 1992)* to minimal levels.

IDWR also acknowledged that re-location of the embankment should improve foundation conditions.

Finally, IDWR indicated that a stream channel alteration permit will be required for, at minimum, the proposed sediment retention structure and the tailrace return to the drain.

(During final design, Applicant will file an application for channel alteration.)

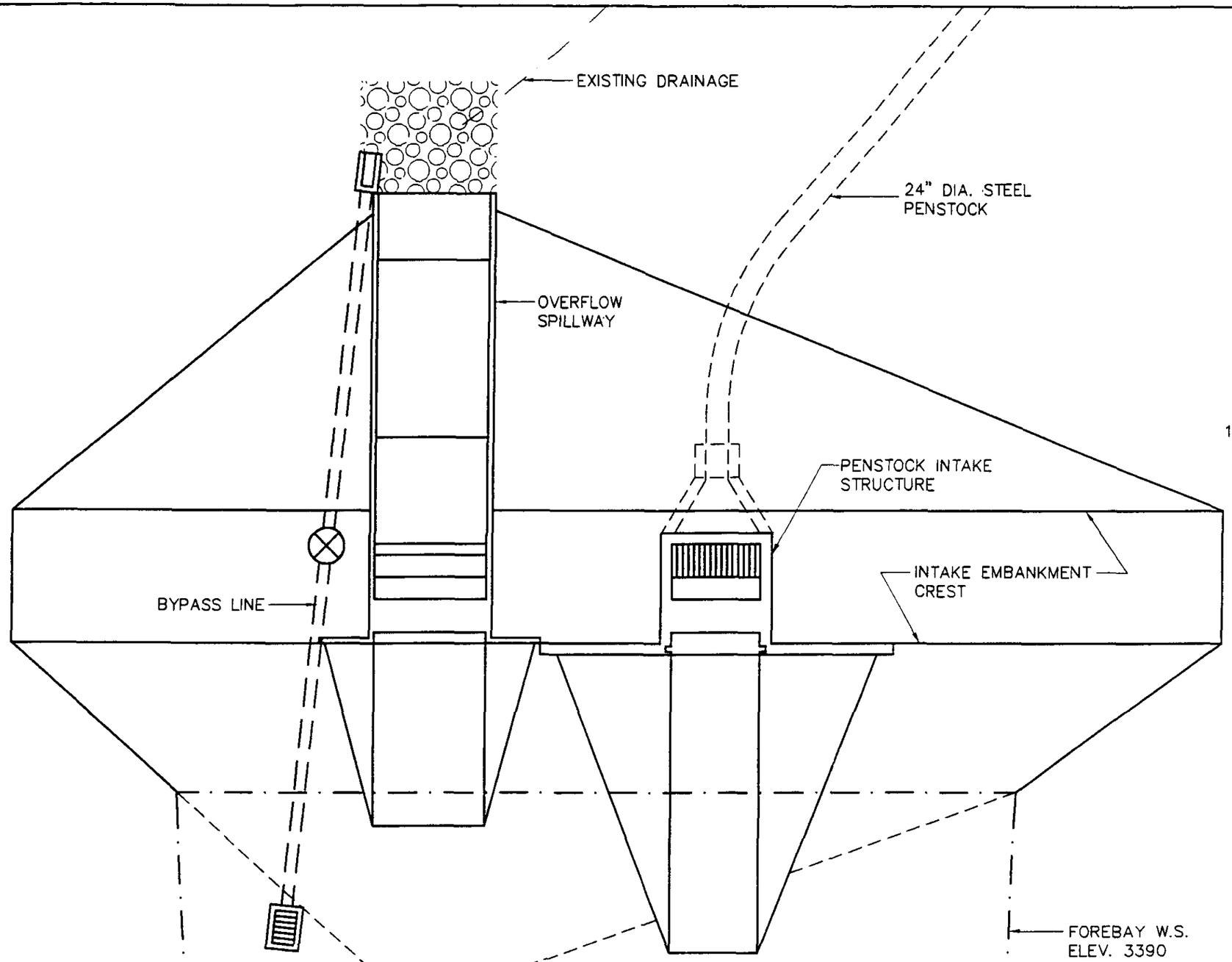
EXHIBIT F

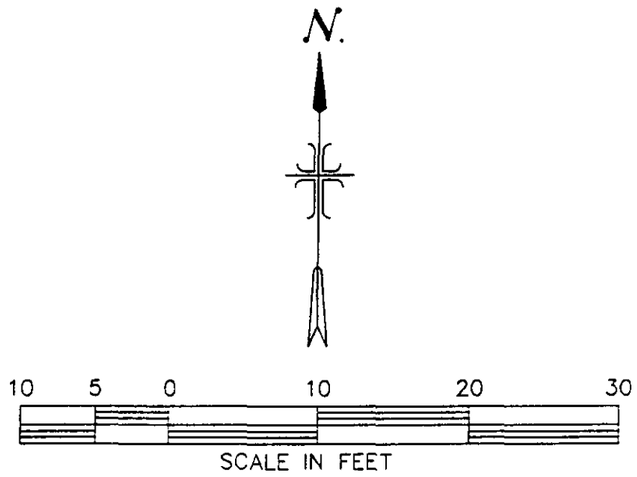
GENERAL DRAWINGS

OF

PRINCIPAL PROJECT WORKS

Figure	Description
F-1	Intake Embankment - Plan
F-2	Sediment Collection Embankment - Plan
F-3	Intake Embankment - Sections
F-4	Overflow Spillway at Intake Embankment - Section
F-5	Overflow Spillway at Sediment Collection Embankment - Section
F-6	Penstock Intake Structure - Plan
F-7	Penstock Intake Structure - Section
F-8	Powerhouse - Plan
F-9	Powerhouse - Section





THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE 10 DAY OF DEC. 1993.

D.W. BLOCK, AUTHORIZED AGENT

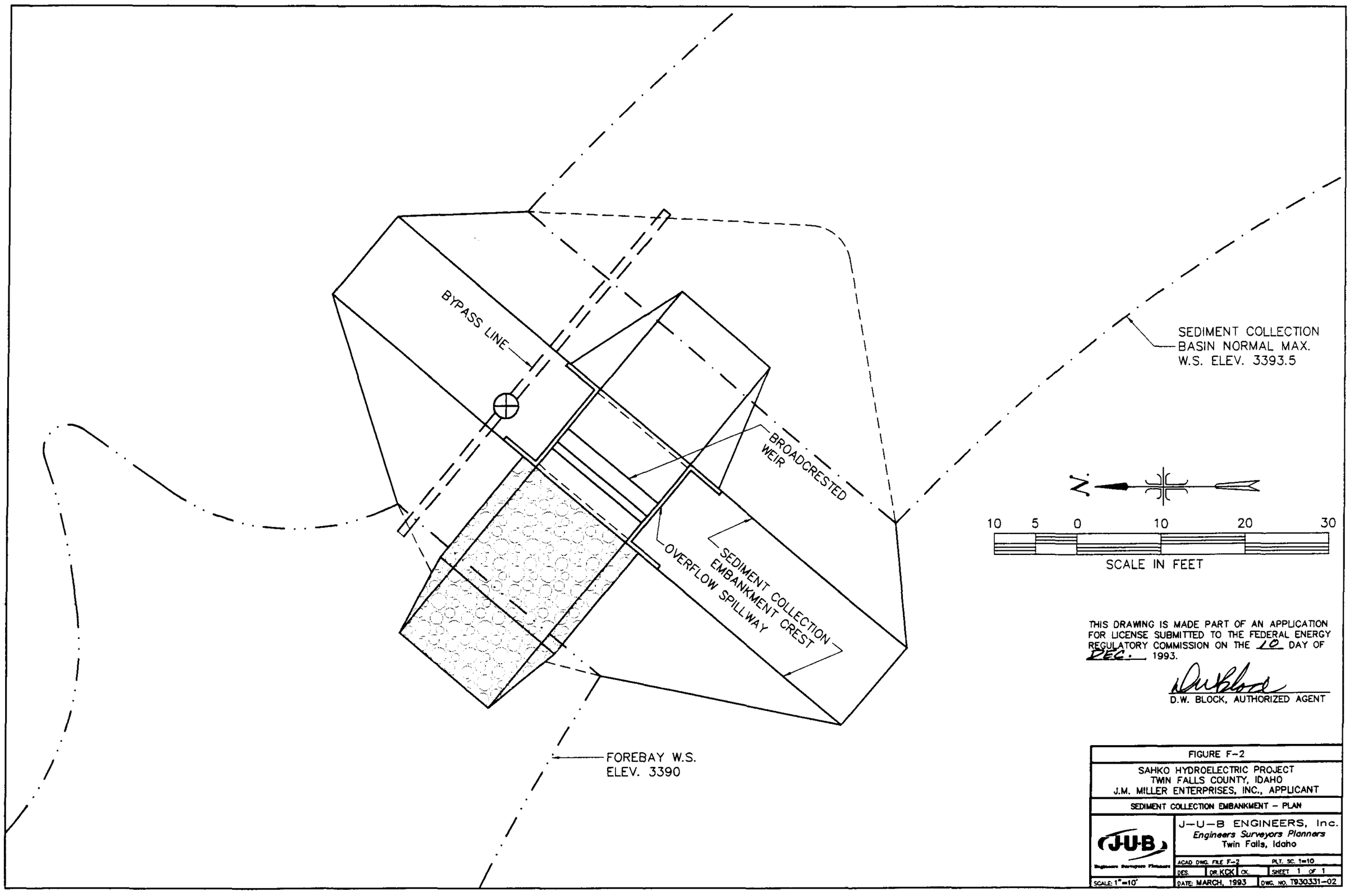
FIGURE F-1

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

INTAKE EMBANKMENT - PLAN

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-1			PLT. SC. 1=10
DES.	DR. KCK	CK.	SHEET 1 OF 1
SCALE: 1"=10'	DATE: MARCH, 1993		DWG. NO. T930331-01



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE 10 DAY OF DEC., 1993.

D.W. BLOCK, AUTHORIZED AGENT

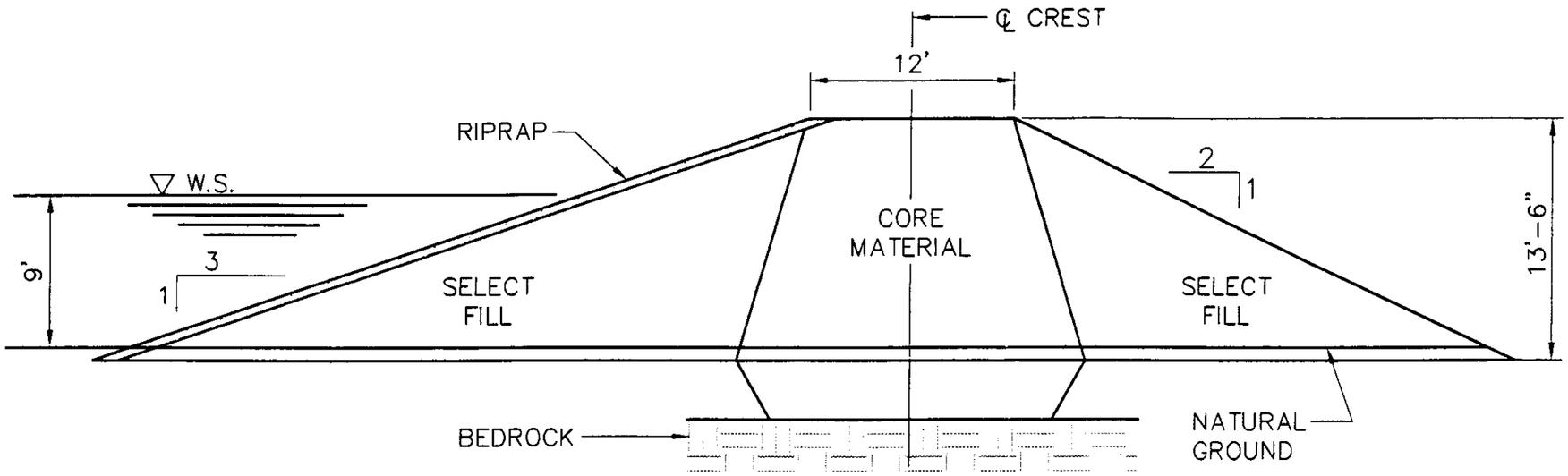
FIGURE F-2

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

SEDIMENT COLLECTION EMBANKMENT - PLAN

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

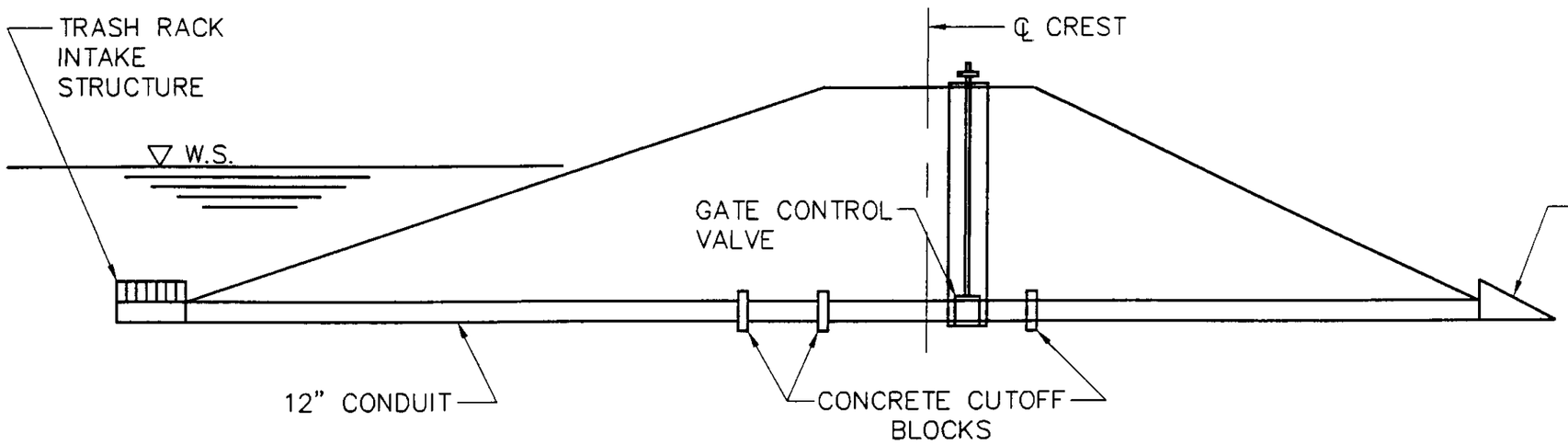
ACAD DWG. FILE F-2 | PLT. SC. 1=10
DES. | DR. KCK | CK. | SHEET 1 OF 1
SCALE: 1"=10' | DATE: MARCH, 1993 | DWG. NO. T930331-02



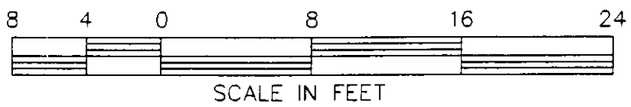
ACTUAL COMPOSITION AND DIMENSIONS OF EMBANKMENT TO BE DETERMINED FROM GEOTECHNICAL INVESTIGATION OF ONSITE MATERIALS.

NOTE :
THE SECTION AND PROFILE FOR THE SEDIMENT COLLECTION EMBANKMENT ARE SIMILAR IN LAYOUT.

TYPICAL SECTION



BYPASS LINE PROFILE



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE 10 DAY OF DEC. 1993.

D.W. BLOCK, AUTHORIZED AGENT

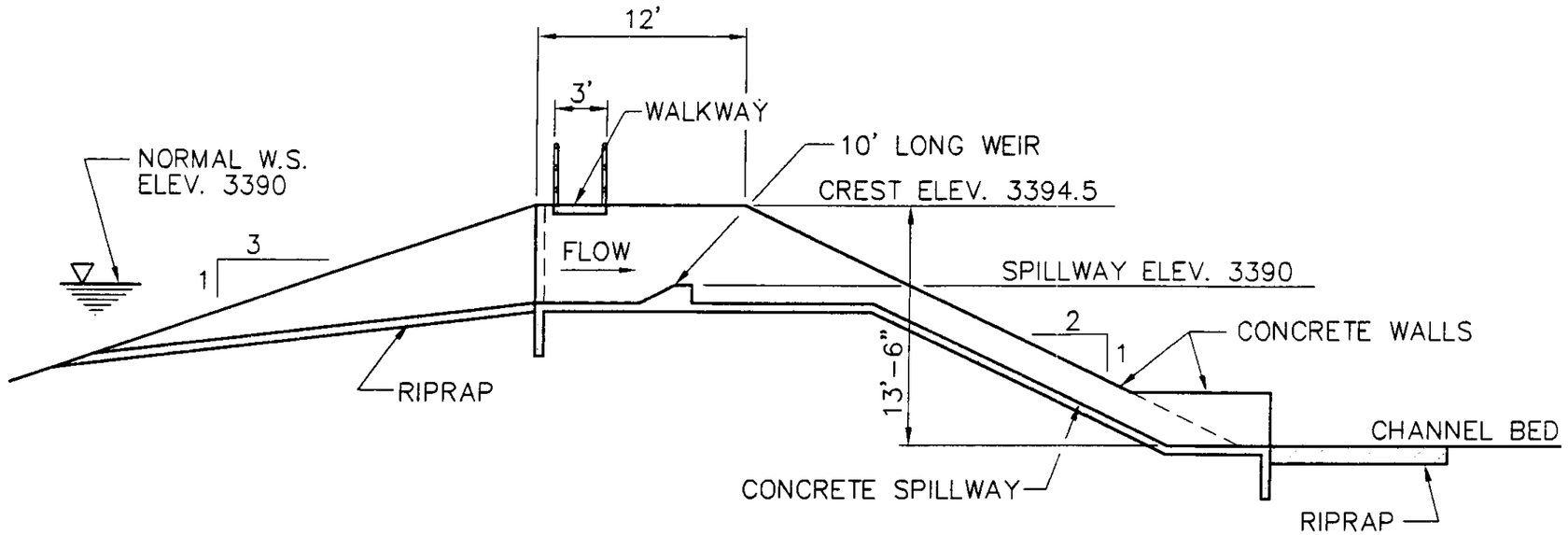
EXHIBIT F-3

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

INTAKE EMBANKMENT - SECTIONS

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-3			PLT. SC. 1=8
DES.	DR. KCK	CK.	SHEET 1 OF 1
SCALE: 1"=8'	DATE: MARCH, 1993		DWG. NO. T9303331-03



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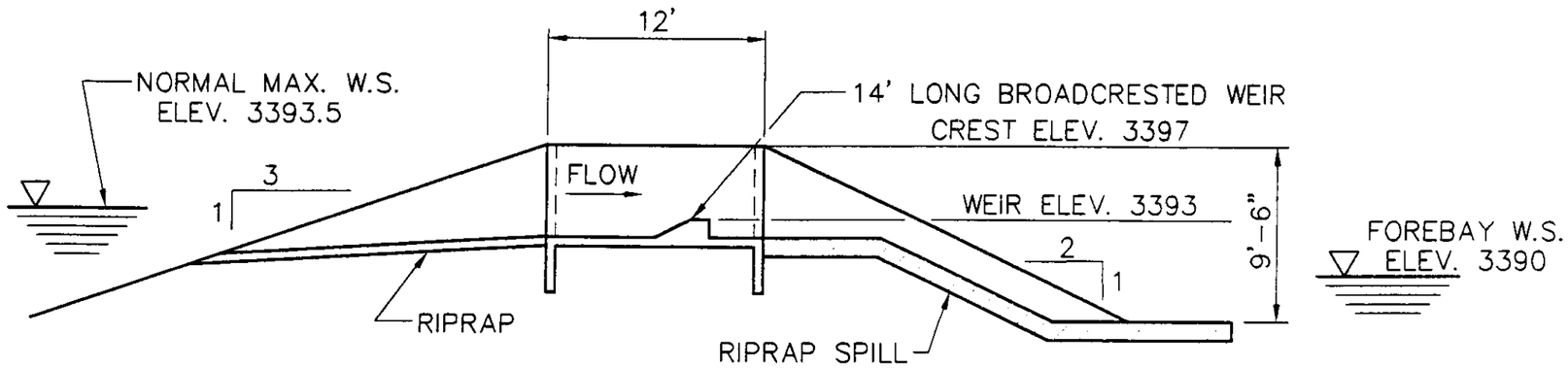
SCALE IN FEET

OVERFLOW SPILLWAY SECTION

THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE 10 DAY OF DEC. 1993.

D.W. BLOCK, AUTHORIZED AGENT

EXHIBIT F-4	
SAHKO HYDROELECTRIC PROJECT TWIN FALLS COUNTY, IDAHO J.M. MILLER ENTERPRISES, INC., APPLICANT	
OVERFLOW SPILLWAY AT INTAKE EMBANKMENT - SECTION	
J-U-B Engineers, Inc. Engineers Surveyors Planners Twin Falls, Idaho	
ACAD DWG. FILE F-4	PLT. SC. 1=8
DES. DR. KCK CK.	SHEET 1 OF 1
SCALE: 1"=8'	DATE: MARCH, 1993 DWG. NO. T930331-04



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SCALE IN FEET

SEDIMENTATION COLLECTION EMBANKMENT

THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE 10 DAY OF DEC., 1993.

D.W. BLOCK, AUTHORIZED AGENT

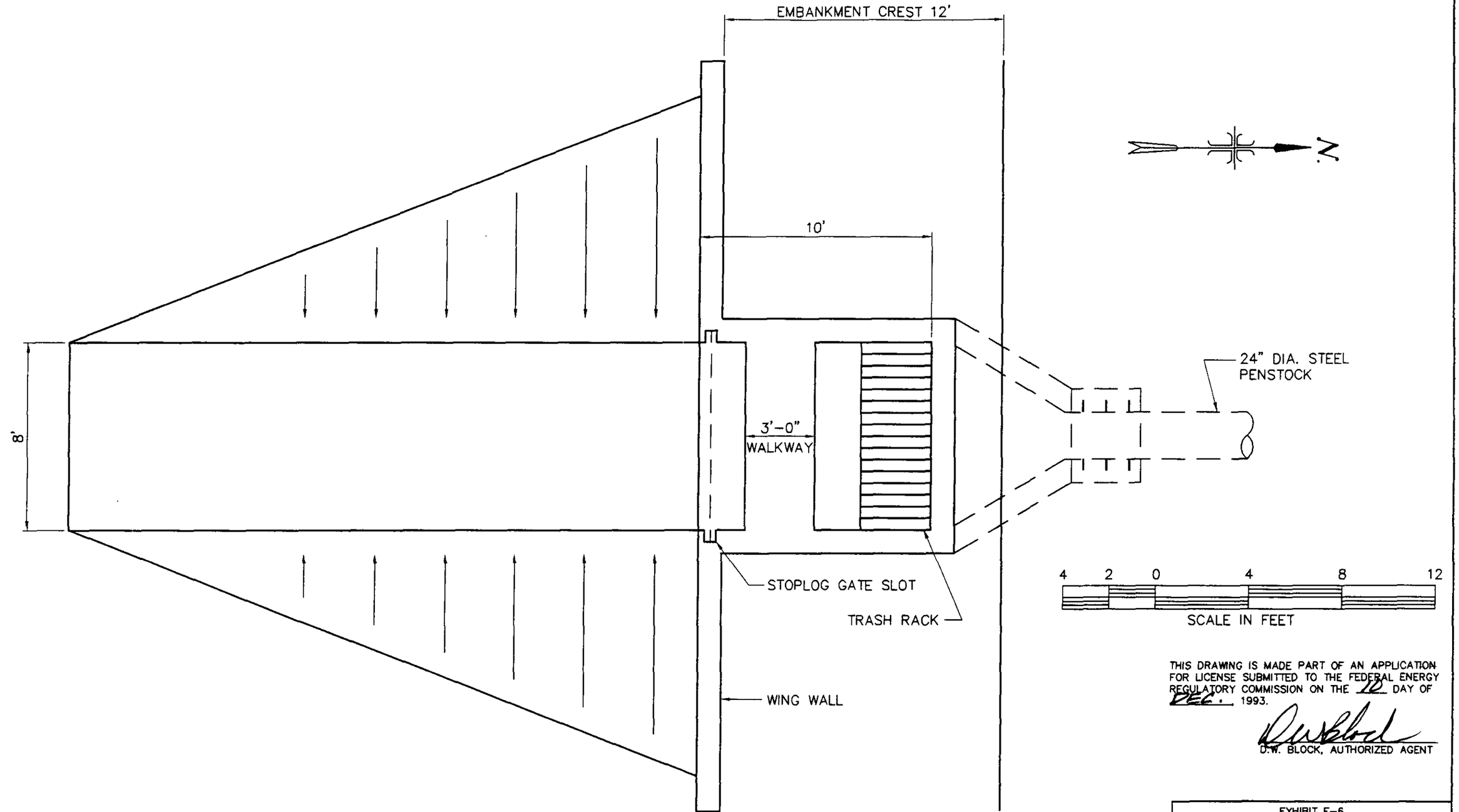
EXHIBIT F-5

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

OVERFLOW SPILLWAY AT SEDIMENT COLLECTION EMBANKMENT - SECTION

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-5 | PLT. SC. 1=8
DES. | DR. KCK | CK. | SHEET 1 OF 1
SCALE: 1"=8' | DATE: MARCH, 1993 | DWG. NO. T930331-05



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE 10 DAY OF DEC., 1993.

D.W. BLOCK, AUTHORIZED AGENT

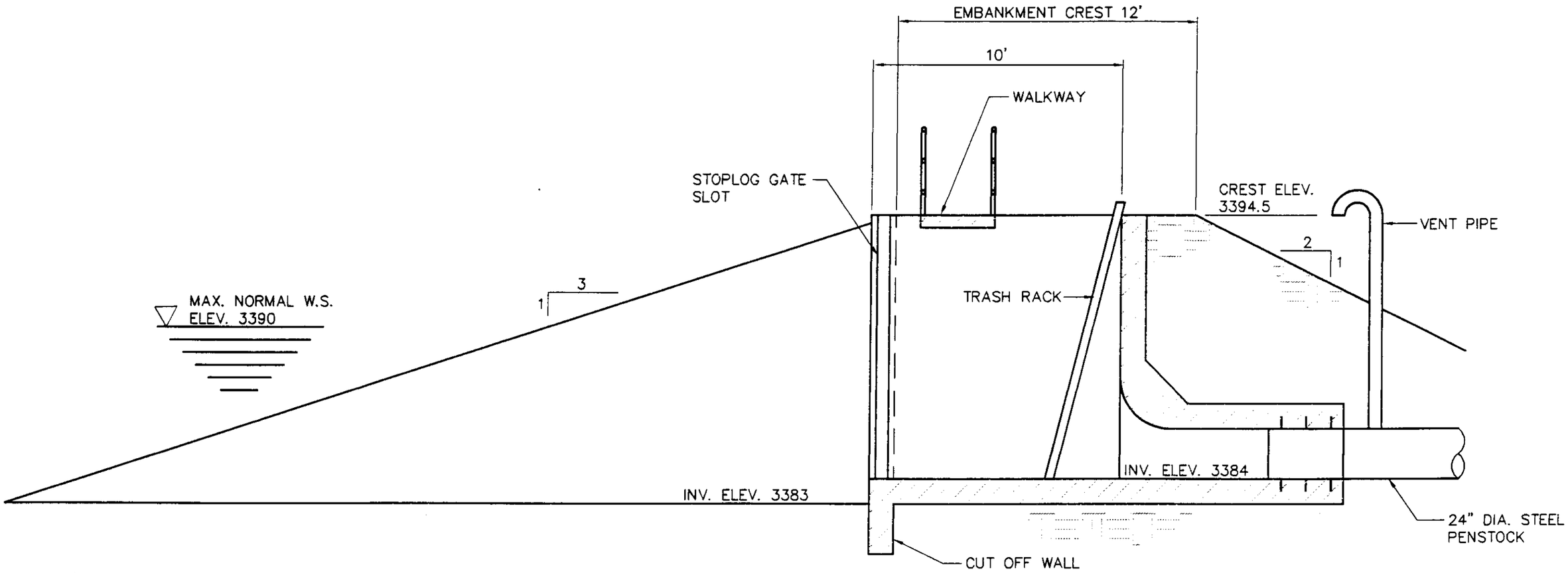
EXHIBIT F-6

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

PENSTOCK INTAKE STRUCTURE - PLAN

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-6			PLT. SC. 1=48
DES.	DR.KCK	CK.	SHEET 1 OF 1
SCALE: 1"=4'-0"	DATE: MARCH, 1993		DWG. NO. T930331-06



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE 10 DAY OF DEC., 1993.

D.W. BLOCK, AUTHORIZED AGENT

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SCALE IN FEET

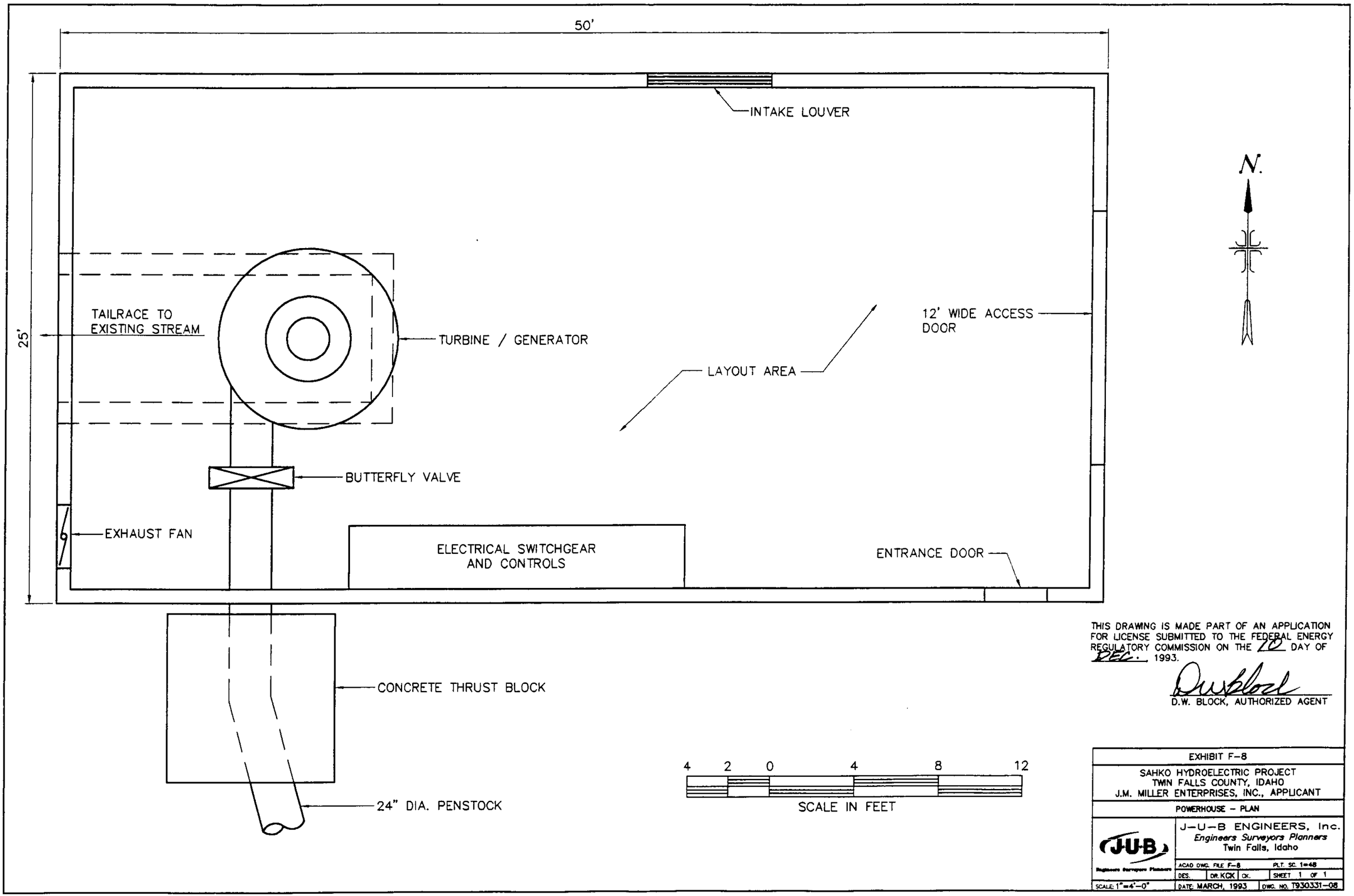
EXHIBIT F-7

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

PENSTOCK INTAKE STRUCTURE – SECTION

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-7			PLT. SC. 1=48
DES.	DR. KCK	CK.	SHEET 1 OF 1
SCALE: 1"=4'-0"	DATE: MARCH, 1993		DWG. NO. T9330331-07



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE 20 DAY OF DEC. 1993.

D.W. BLOCK, AUTHORIZED AGENT

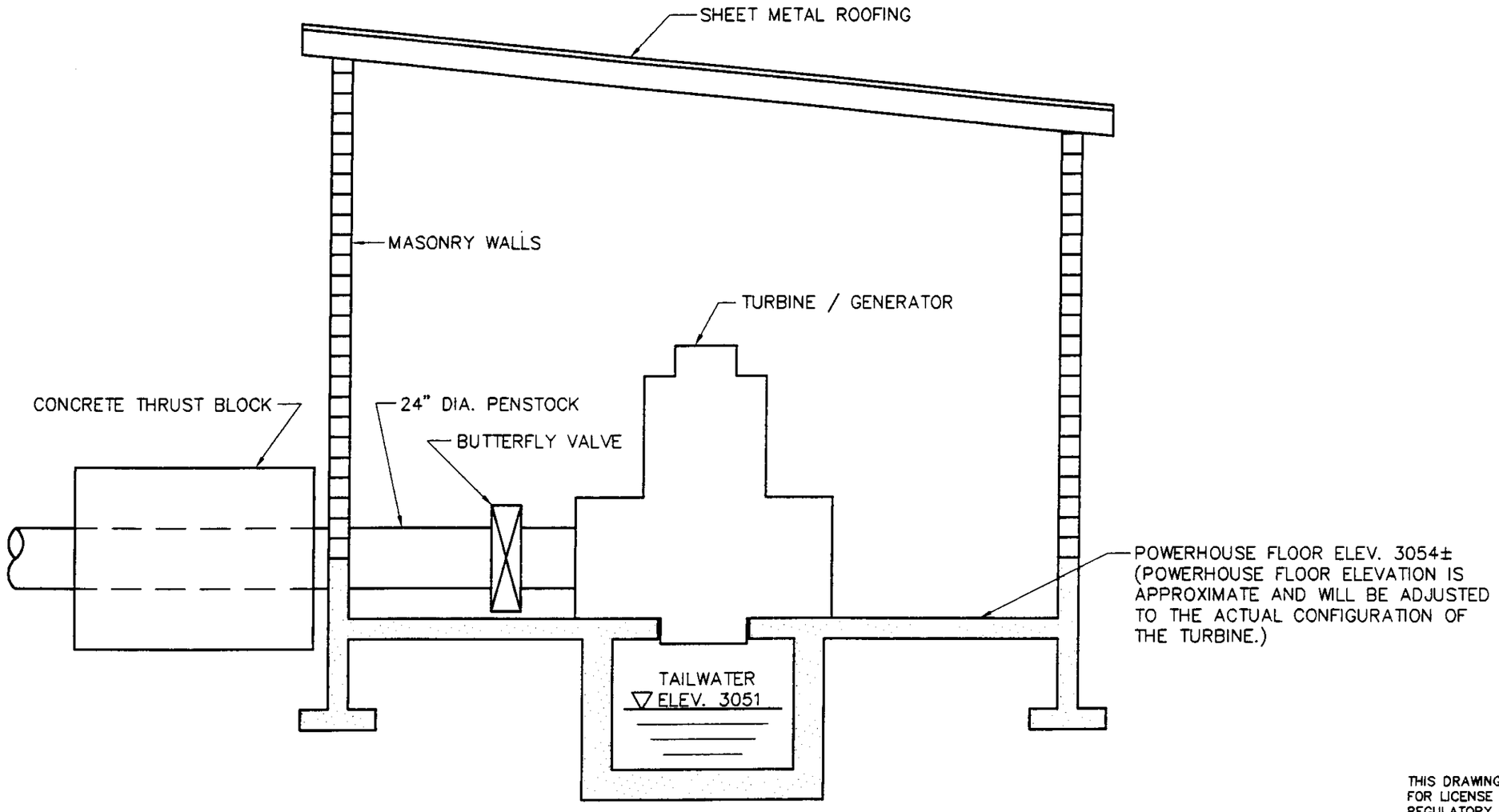
EXHIBIT F-8

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

POWERHOUSE - PLAN

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

SCALE: 1"=4'-0"	ACAD DWG. FILE F-8		PLT. SC. 1=48
	DES.	DR. KCK	CK.
	DATE: MARCH, 1993		DWG. NO. T930331-08
			SHEET 1 OF 1



THIS DRAWING IS MADE PART OF AN APPLICATION FOR LICENSE SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION ON THE 10 DAY OF DEC., 1993.

D.W. BLOCK, AUTHORIZED AGENT

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SCALE IN FEET

EXHIBIT F-9

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

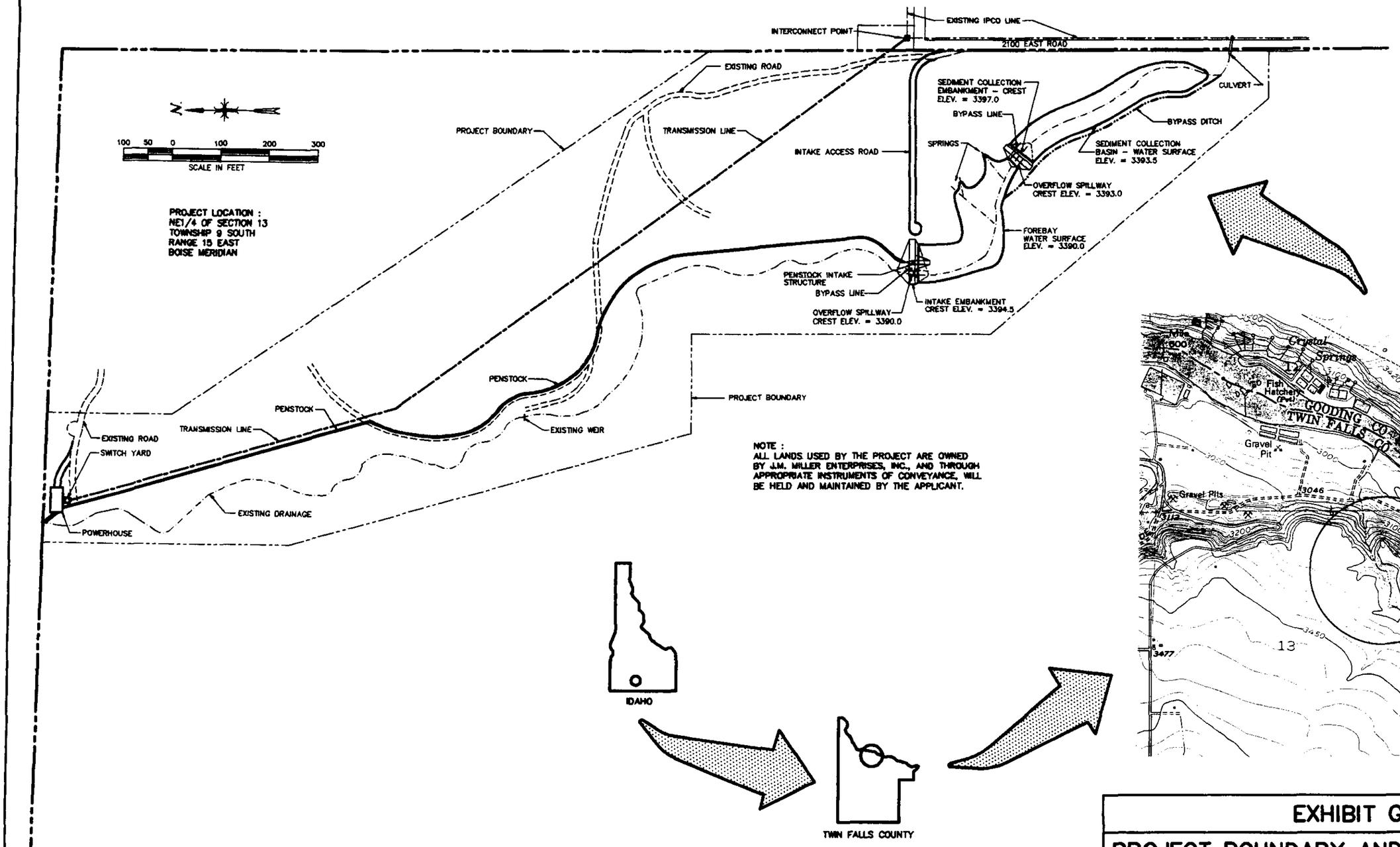
POWERHOUSE - SECTION

J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
Twin Falls, Idaho

ACAD DWG. FILE F-9			PLT. SC. 1=48
DES.	DR. KCK	CK.	SHEET 1 OF 1
SCALE: 1"=4'-0"	DATE: MARCH, 1993		DWG. NO. T930331-09

EXHIBIT G

PROJECT LOCATION MAP



REVISED 3-16-93

EXHIBIT G

PROJECT BOUNDARY AND LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

APPENDICES

APPENDIX 1 - Request for Water Quality Certification

APPENDIX 2 - Records of Consultation with Agencies

APPENDIX 3 - Wetlands Delineation Report/Conceptual Mitigation Plan

APPENDIX 4 - Archaeological/Historic Survey Report

APPENDIX 5 - Water Appropriation Permit (IDWR)

APPENDIX 1

Request for Water Quality Certification

J•U•B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

December 9, 1993

RECEIVED
DEC 09 1993
DEQ-SCIRO

Mr. Tim Litke
Regional Administrator
Idaho Dept. of Health and Welfare
Division of Environmental Quality
601 Pole Line Rd., Suite 2
Twin Falls, ID 83301

Re: Proposed Sahko Hydroelectric Project
J. M. Miller Enterprises, Inc., Applicant
REQUEST FOR WATER QUALITY CERTIFICATION

Dear Mr. Litke:

On behalf of our subject client, we submit herewith a copy of an application to the Federal Energy Regulatory Commission (FERC) for license (minor) of a proposed small hydroelectric project in Twin Falls County, Idaho.

In accordance with FERC regulations, we respectfully request your water quality certification of the project pursuant to Section 401 of the Clean Water Act.

An executed copy of the application will be sent to you when filed with the Commission.

If you have any questions, please let me know.

Sincerely,

D.W. "Bill" Block, P.E.
Authorized Agent

cc: J.M. Miller Enterprises, Inc.

enc.

APPENDIX 2

Record of Consultation and Correspondence with Agencies

J•U•B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

September 22, 1992

Mr. Charles Lobdell
Field Supervisor
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road, RM. 576
Boise, Idaho 83705

SAMPLE

RE: Proposed Sahko Hydroelectric Project
Kastelu Drain
Twin Falls County, Idaho
J.M. Miller Enterprises, Inc., Applicant
FIRST-STAGE CONSULTATION

Dear Mr. Lobdell:

Per Title 18 CFR, Part 4.38 regulations of the Federal Energy Regulatory Commission (FERC), we enclose herewith on behalf of the above applicant the following materials for your use in connection with an intended application to the FERC for permission to construct and develop the referenced project:

Project Description (Tabular Summary) - The summary is intended to form the basis for an eventual Exhibit A of the application, identifying the project's general design and mode of operation;

Environmental Report - The narrative will form the basis for an eventual Exhibit E; it reflects the intended project configuration, our current knowledge of the area to be affected by the project, expected and/or potential impacts of development, and the applicant's proffer measures, to the extent they are known, to avoid or mitigate said impacts.

Project Location Map - The map identifies the location of the proposed project, existing and proposed features thereof, and a proposed project boundary enclosing lands to which the applicant has proprietary rights for project development. No public lands are involved. The map will form the basis for an eventual Exhibit G.

Please be advised that the applicant intends to seek benefits under Section 210 of PURPA by satisfying the requirements for qualifying hydroelectric small power production facilities ("QF's") pursuant to 18 CFR, Part 292.203.

In that we have identified your agency as a "relevant" agency in this regulatory procedure before the FERC, we ask that you provide a response to this communication in any event. If you find that your agency will not intend to involve itself further, we would appreciate such indication. If you concur that your agency's involvement is relevant to this proceeding, we request your responses on the following items:

1. In that PURPA benefits are sought, applicant states its belief that the project proposes the construction a new dam or diversion as defined in Part 292.202(p); and, we are directed to request, and do here so request, your agency's view on that belief, if any.

2. We request any information you can provide concerning your role as the administering agency, or as a cooperating agency, of any state, regional, or national water resource development plan(s), and your finding, as appropriate, of whether the proposed project is in conflict with said plan(s).

3. We request any information you can provide, as approriate, concerning the probable existence of any rare, threatened and/or endangered species--or candidate species--of vegetation and wildlife in the general and/or project area.

4. We request you provide a description of your continued role, as appropriate, in any other regulatory proceeding related to the proposed project's construction and operation.

5. We request that you review the enclosed material, and offer your comments on the proposed project, identifying what you believe to be additional study efforts beyond those already undertaken; and further, that your requests for additional studies, if any, be *founded pursuant to the requirements identified in 18 CFR, Section 4.38 (b)(4)(i) - (vi).*

This transmittal constitutes the beginning of first-stage agency consultation, as required in the pre-application procedures. Please be advised that, in no less than thirty days nor greater than sixty days from the date of this letter, the applicant intends to hold a meeting at the site with affected agencies, and intends to hold a meeting with the public and affected agencies, at which time the project will be presented and discussed, and comments taken from agencies and the public.

J·U·B

Engineers Surveyors Planners

If you have any questions, please let me know.

Sincerely,

D.W. "Bill" Block, P.E.
Authorized Agent

cc: J.M. Miller Enterprises, Inc. (w/enc.)

enc.

FIRST STAGE CONSULTATION
NOTICE OF ON-SITE MEETING/PUBLIC MEETING

Mr. Einar Wold, Division Chief
National Marine Fisheries Service
Env. & Tech. Services Division
Room 620
Portland, OR 97232

Chief
Interagency Archeological Services
National Park Service
600 Harrison Street
Suite 600
San Francisco, CA 94107

Mr. G. Dean Hilliard
Regulatory Branch
Army Corps of Engineers
Walla Walla District
Walla Walla, WA 99362-9265

Mr. Charles Lobdell
Field Supervisor
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road, Rm. 576
Boise, Idaho 83705

Mr. Will Reid
Fisheries Program Coordinator
Idaho Dept. of Fish & Game
600 S. Walnut
Box 25
Boise, Idaho 83707

Mr. Carl Nellis
Supervisor
Region 4
Idaho Dept. of Fish & Game
868 E. Main St.
Jerome, Idaho 83338

Mr. Tom Green
Dpty. SHPO
Idaho State Historical Society
210 Main St.
Boise, ID 83702

Mr. Loren Holmes, District Manager
Idaho Dept. of Water Resources
220 Shoshone St. East
Twin Falls, Idaho 83301

Mr. Tim Litke, Regional Administrator
Idaho Dept. of Health and Welfare
Division of Environmental Quality
P. O. Box 1626
Twin Falls, Idaho 83303-1626

Ms. Yvonne Ferrell, Director
Idaho Dept. of Parks and Recreation
Statehouse Mail
Boise, ID 83720

Mr. Lee Taylor
Planning and Zoning Administrator
County of Twin Falls
246 3rd Ave. East
Twin Falls, Idaho 83301

Librarian
Filer City Library
219 S. Main St.
Filer, Idaho 83328

Mr. Warren McFall
Idaho Operations Office
Environmental Protection Office
420 W. Washington St.
Boise, Idaho 83702

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
ENVIRONMENTAL & TECHNICAL SERVICES DIVISION
911 NE 11th Avenue - Room 620
PORTLAND, OREGON 97232
503/230-5400 FAX 503/230-5435

F/NWO3

OCT 1 1992

J-U-B Engineers
RECEIVED
OCT - 1 1992
TWIN FALLS, IDAHO

Mr. Bill Block
J*U*B Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, ID 83301

Subject: Proposed Sahko Hydroelectric Project

Dear Mr. Block:

The National Marine Fisheries Service has responsibilities for the protection of marine, estuarine, and anadromous fishery resources and their supporting habitats. Your proposed project pertains to activities that do not appear to affect these resources. Therefore, we have no comment.

In the event we learn that resources within our jurisdiction will be impacted by the proposed project, we will supplement our comments.

Sincerely,

for Nicholas E. Iadanza
Chief, Habitat Conservation Branch

cc: FERC Washington D.C.

J·U·B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

October 15, 1992

Mr. Will Reid
Fisheries Program Coordinator
Idaho Dept. of Fish & Game
600 S. Walnut
Box 25
Boise, ID 83707

SAMPLE

RE: Preliminary Permit #11060-000-Idaho
Proposed Sahko Hydroelectric Project
Twin Falls County, Idaho
J.M. Miller Enterprises, Inc., Applicant
NOTICE OF ON-SITE MEETING; NOTICE OF PUBLIC MEETING

Dear Mr. Reid:

On behalf of the referenced applicant, our client, please be advised that an on-site meeting with affected or interested agencies is planned to convene at 1:00 p.m., on November 2, 1992. At that time, we will be pleased to show you/your delegate the proposed project's layout, and discuss matters relevant to its development, to the extent they can be addressed.

This procedure is in further accordance with the FERC requirements for first-stage consultation.

The project site can be reached via:

(Near the north edge of City of Twin Falls, south side of the Snake River) From the intersection of Blue Lakes Blvd. North and Pole Line Road, proceed nine (9) miles west on Pole Line Rd. to County Road 2100 East;

Turn right (north) on 2100 East, and proceed 3.75 miles to the road's terminus near the Snake River canyon's south rim.

We will convene at the road terminus. Although an existing gravel road descends the canyon, parts of the project are only accessible by foot, and some slopes are steep.

J·U·B

Engineers Surveyors Planners

We also plan to hold a joint meeting (public and agencies) at 7:00 p.m. that evening in Classroom #1 at Filer High School (on Rte. 30 in Filer). At that time we will further solicit your comments and those of the public, in accordance with first-stage public involvement procedures.

If you have any questions, please let me know.

Sincerely,

D.W. "Bill" Block, P.E.
Applicant's Agent

J·U·B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

October 16, 1992

Director
Office of Hydropower Licensing
Federal Energy Regulatory Commission
801 First St. NE., RM. 1129
Washington, DC 20426

RE: Preliminary Permit #11060-000-Idaho
Proposed Sahko Hydroelectric Project
Twin Falls County, Idaho
J. M. Miller Enterprises, Inc., Applicant
NOTICE OF ON-SITE MEETING, NOTICE OF PUBLIC MEETING

Dear Sir:

In accordance with consultation requirements and on behalf of our subject client, this is to advise you that an invitation to attend an on-site meeting with affected agencies was mailed on October 15, 1992, and that both an on-site meeting with agencies and a meeting with the public has been scheduled for Monday, November 2, 1992. The on-site meeting with agencies will convene at the site at 1:00 p.m. The meeting with the public is planned to convene at the Filer High School at 7:00 p.m. that evening.

This is also to advise you that a Notice of the planned public meeting was published in the local area newspaper, and a certificate of publication is enclosed herewith.

If you have any questions, please let me know.

Sincerely,

D. W. "Bill" Block, P.E.
Authorized Agent

DWB/fw

Enclosure

cc: J. M. Miller Enterprises, Inc.

Legal Notice
Pursuant to the Code of Federal Regulations (CFR), Title 18, Section 4.38(b)(3), and 4.38(g), the public is herby advised of, and invited to attend, a meeting for the following purpose(s):
1) To advise the public of the proposed Sahko Hydroelectric Project, to be located within Twin Falls County, Idaho, and for which the applicant, J.M. Miller Enterprises, Inc., will be seeking permission from the Federal Energy Commission (FERC), to develop, construct, and operate;
2) To solicit from the public any comments regarding the proposed project.
3) To discuss with the public any issues raised at the meeting, which issues shall be addressed to the extent they can at this stage of development.
As of the date of this notice, information about the project is available for public inspection and reproduction at the Filer Public Library, Filer, Idaho. Copies may also be obtained from the applicant's agent, J-U-B Engineers, Twin Falls, Idaho, after compensation for materials and copying efforts. The information shall be available until at least the day of the public meeting. Limited copies of project information will also be available at the public meeting.
The meeting will take place at seven (7:00) p.m. on November 2, 1992, in Classroom #1 at the Filer High School on US Highway 30, Filer, Idaho.
Publication Date: October 16, 1992

Affidavit of Publication

STATE OF IDAHO }
COUNTY OF TWIN FALLS } ss.

№ 24106

I, Linda Capps McGuire being first duly sworn upon oath, depose and say that I am Classic Clerk of the TIMES-NEWS, published daily, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for One ~~consecutive~~ Time Only, ~~commencing with the issue dated~~ _____, 19__, ~~and ending~~ with the issue dated October 16, 1992.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 31, 1978, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO
COUNTY OF TWIN FALLS

On this 16 day of October in the year of 1992, before me, a Notary Public, personally appeared Linda Capps McGuire, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Trina R. Fettman
Notary Public for Idaho
Residing at Twin Falls
My commission expires: 5/19/94

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boise Field Station
4696 Overland Road, Room 576
Boise, Idaho 83705

J-U-B Engineers
RECEIVED
OCT 26 1992
TWIN FALLS, IDAHO

RECEIVED
BOISE, IDAHO

October 21, 1992

D.W. Block, P.E.
JUB Engineers, Inc.
250 South Beachwood Avenue
Suite 1
Boise, Idaho 83709

Subject: Sahko Hydroelectric Project, First-Stage Consultation (503.0400/1-4-93-SP-2)

Dear Mr. Block:

The U.S. Fish and Wildlife Service (Service) has reviewed information provided with your letter to us dated September 22, 1992, initiating first-stage consultation pursuant to the Federal Power Act, as amended, for the proposed Sahko Hydroelectric Project. This acknowledges initiation of the first stage of consultation. Your letter includes five items for our response. The Service is providing response in part now, and will complete our comments following the meeting on site.

We recognize the applicant will seek benefits under the Public Utilities and Regulatory Policy Act (PURPA). We concur that, based on the information provided, this project constitutes a new dam or diversion.

Enclosed please find a list of threatened, endangered, candidate, or proposed species of plants or animals which may be found in the project area. By way of a copy of this letter we are providing the Federal Energy Regulatory Commission with the enclosed list. It is the responsibility of the Commission to meet the intent of Section 7 of the Endangered Species Act should this lead to an action on their part.

The Service is concerned about the project's potential impacts to riparian wetlands within and downstream of the project area. You will be expected to address this and other issues in preparation of your draft application. The Service will develop a complete list of recommendations after the onsite meeting that you have scheduled for November 2, 1992 at 1 p.m.

If you have any questions, please contact Ted Koch of this office at (208) 334-1931.

Sincerely,

for Alison Blackhaas

Charles H. Lobdell
Field SUpervisor

Enclosures

cc: IDFG, HQ, Program Coordination, Boise
IDFG, Region IV, Jerome
FWS-FWE, Portland
FERC-OHL, (w/enclosure) Washington, D.C.

AS REQUESTED
LISTED AND PROPOSED ENDANGERED
AND THREATENED SPECIES, AND CANDIDATE
SPECIES, THAT OCCUR WITHIN THE FEDERAL ENERGY REGULATORY COMMISSION
SAHKO HYDROELECTRIC PROJECT

DATE: October 21, 1992
PROJECT NAME: Sahko Hydro Project
SPECIES LIST NO. FWS 1-4-93-SP-2

LISTED SPECIES	COMMENTS
Bald Eagle (*Haliaeetus leucocephalus*)	Wintering area

PROPOSED SPECIES

Snake River Physa
(*Physa natricina*)

Idaho Springsnail
(*Fontelicella idahoensis*)

Utah Valvata Snail
(*Valvata utahensis*)

Bliss Rapids Snail
(undescribed)

Banbury Springs lanx
(*Lanx sp.*)

CANDIDATE SPECIES

Pygmy Rabbit (C2)
(*Brachylagus idahoensis*)

GENERAL COMMENTS:

C2 = Category 2 Taxa for which information now in possession of the U.S. Fish and Wildlife Service indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat are not currently available to support proposed rules. Further biological research and field study may be needed to ascertain the status of taxa in this category.

IDAHO FISH & GAME
600 South Walnut
P.O. Box 25
Boise, ID 83707-0025

October 30, 1992

J-U-B Engineers
RECEIVED
NOV - 3 1992
TWIN FALLS, IDAHO

Mr. William Block
JUB Engineers, Inc.
250 South Beachwood Avenue
Boise, Idaho 83709

Re: Sahko Hydroelectric Project
STAGE ONE CONSTRUCTION

Dear Mr. Block:

Idaho Department of Fish and Game (IDFG) personnel have reviewed the Stage One consultation package for the Sahko Hydroelectric Project, FERC No. unassigned. In general, initial review indicates the proposed project would have minimal impacts on fish and wildlife provided the project will utilize only existing water diversions.

IDFG personnel have expressed concerns over the potential loss of existing vegetation in the canyon area. We request that the applicant conduct vegetative sampling to document species and quantity of existing vegetation.

We request the final Exhibit E not contain provisions for improved recreation access. Currently, limitations on human access provides for wildlife sanctuary within the proposed hydropower site.

I have given below an estimate of expected IDFG expenses as a result of setting project terms and conditions:

Personnel Costs		
Dave Parrish	Five days at $20.00 per day	$100.00
Will Reid	Five days at $25.00 per day	$125.00
Operating		
Travel	10 days at $21.00 per day	$210.00
Vehicle Rental		$500.00

Cecil D. Andrus / Governor
Jerry M. Conley / Director
Equal Opportunity Employer

If you have any questions concerning this response, please contact Mr. Will Reid at 600 South Walnut, P.O. Box 25, Boise, Idaho 83707 or telephone 334-2598.

Sincerely,

Cal Groen

Cal Groen, Chief
Natural Resources Policy Bureau

cc: Reg 4
USFWS (Lobdell)
USBLM (Burley)
Idaho Parks and Recreation (Lucachick)

ATTENDANCE REGISTER 11/2/92 MM

ON-SITE MEETING — J.M. MILLER ENTERPRISES

SAHKO HYDROELECTRIC PROJECT — PROPONENT

FERC #11060-000-IDAHO

	NAME	REPRESENTING	CITY
1	MARC A. AUTH MM	CONSULTANT/CLIENT	TWIN FALLS, ID
2	TRACY A. AHRENS TA	JUB ENGINEERS	TWIN FALLS, ID.
3	Ted Koch	USFWS	Boise, ID
4	Loren Humes	IDWR	Twin Falls
5	Doug Jones		"
6	[illegible]	Miller	Twin Falls
7	Robert Flowers	COE	BOISE
8	TIM LITKE	IDHW-DEQ	TWIN FALLS
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

11/2/92 MH

ATTENDANCE REGISTER — J.M. MILLER ENTERPRISES, INC. PROPONENT

PUBLIC INFORMATION MTG

[illegible]

FERC #10660-000 - IDAHO

	NAME	AFFILIATION	ADDRESS
1	MARC S. AUTH	CONSULTANT TO CLIENT	
2	DAVE PARRISH	IDAHO FISH + GAME	Box 428 JEROME
3			
4	TRACY AHRENS	JUB ENGINEERS	Twin Falls, Id.
5			
6			
7			
8			
9			
10			

United States Department of the Interior

NATIONAL PARK SERVICE
Western Region
600 Harrison Street, Suite 600
San Francisco, California 94107-1372

IN REPLY REFER TO:
L7621 (WR-RRA)

November 2, 1992

J-U-B Engineers
RECEIVED
NOV - 6 1992
TWIN FALLS, IDAHO

D.W. Block, P.E.
J.U.B. Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, ID 83301

Dear Mr. Block:

We have received your request for cultural resource review of the proposed Sahko hydro project, Twin Falls County, Idaho. Unfortunately, we will not be able to review this project. Scheduling and budget constraints for this fiscal year have severely restricted our ability to do undertake environmental reviews. As an alternative, we suggest that you request comments from the Idaho State Historic Preservation Office (610 N. Julia Davis Drive, Boise 83702; 208/334-3847).

Sincerely,

Thomas L. Burge
Chief, Interagency Archeological Services

PROJECT Sahko Hydroelectric Project JOB NO. _____ SHEET _____

DESIGNED _____ DATE _____

ITEM MEMO To FILE CHECKED _____ DATE _____

11-5-92
4:10 PM

I recieved a phone call from Mr Karl Simonson of the BLM office in Burley. Mr Simonson asked about the location of the Project. We reviewed the location over the phone such that he was able to identify the site on his maps. It was then determined that the project site was all on private property.

IDAHO STATE HISTORICAL SOCIETY

CECIL D. ANDRUS, Governor

Director
210 Main St.
Boise, Idaho 83702
208-334-2682

Archaeology
210 Main St.
Boise, Idaho 83702
208-334-3847

Education
610 N. Julia Davis Dr.
Boise, Idaho 83702
208-334-2120

Genealogical Library
450 N. 4th St.
Boise, Idaho 83702
208-334-2305

Historic Preservation
210 Main St.
Boise, Idaho 83702
208-334-3847, 3861

Library and Archives
450 N. 4th St.
Boise, Idaho 83702
208-334-3356

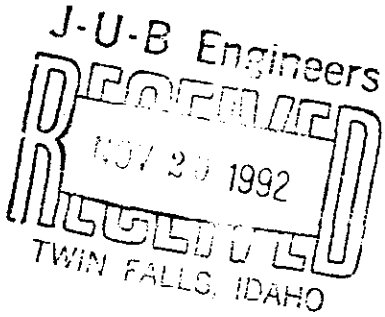
Museum
610 N. Julia Davis Dr.
Boise, Idaho 83702
208-334-2120

Old Idaho Penitentiary
2445 Old Penitentiary Rd.
Boise, Idaho 83712
208-334-2844

Oral History
210 Main St.
Boise, Idaho 83702
208-334-3863

Publications
450 N. 4th St.
Boise, Idaho 83702
208-334-3428

November 18, 1992



Mr. D.W. Bill Block
JUB Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, Idaho 83301

RE: Proposed Sahko Hydroelectric Project
Twin Falls County

Dear Mr. Block:

Thank you for providing our office with information on the proposed Sahko Hydroelectric Project located in Sections 12 and 13, T9S, R15E, near the Snake River in Twin Falls County, Idaho. The project will involve the construction an earth-fill embankment and pond area, powerhouse, and transformer pad, and the installation of 1,600 feet of penstock.

After reviewing our records, we recommend that a professional archaeologist inspect the project area for archaeological sites, prior to any ground-disturbing activities. The report documenting the investigations should be forwarded to our office for review.

We appreciate your cooperation. If you have any questions, feel free to contact Suzi Neitzel at 208-334-3847.

Sincerely,

Kenneth J. Swanson
State Historic
Preservation Office

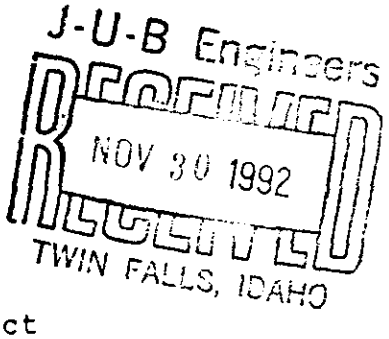
KJS/spn
cc: Ron Corbyn, NPS

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000
Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

November 25, 1992



Mr. D. W. "Bill" Block
J-U-B Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, ID 83301

RE: Proposed Sahko Hydroelectric Project

Dear Bill:

The Department is in receipt of the information you sent concerning the proposed Sahko Hydroelectric Project. It has been reviewed, and we feel that the Department will have direct involvement in certain aspects of the project. Therefore the following comments are being made:

1. The difference in the elevation of the streambed and the normal water surface is 20 feet at the dam. The project will, therefore, be under the Department's safety authority.

2. The project is within the Middle Snake River study and planning area. The reach of the Snake River, to which Kastelu Drain is tributary, is currently under interim protection status by the Water Resource Board. The project site is not subject to the interim protection restrictions.

3. The Department of Water Resources has no information concerning vegetation or wildlife in the project area.

4. The alteration activities within the stream channel may be under the regulatory authority of the Department.

5. Water right application no. 47-08271 has been filed for this project. Additional information has been requested from the applicant to fulfill the requirements of Water Appropriation Rule 4,5,3., but has not yet been received.

Another concern that has been expressed by the public is the rapid change in water levels in the stream, caused by operating the plants by surging to optimize the power production. The effect of this practice should be examined if that method of operation is proposed.

Thank you for the opportunity to comment on the proposed project. Please notify us when you schedule any meetings concerning this project.

Sincerely,

Bob Fleenor

Bob Fleenor
Chief, Resource Protection Bureau

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

J-U-B Engineers
RECEIVED
DEC - 9 1992
TWIN FALLS, IDAHO

December 8, 1992

Mark Auth
J. M. Miller Ent., Inc.
P. O. Box 595
Twin Falls, ID 83303

RE: SAHKO Site Review Comments, Safety of Dam Classification

Dear Mark,

In response to our phone conversations and those with IDWR-State Office I am writing this follow-up letter to provide further information and clarification on the above referenced subjects.

During the tour of the project site, owner representatives pointed out the proposed dam alignment. I expressed concern that there are springs within the foundation footprint of the structure. In addition, I pointed out that there are soil sloughs present in the west-side slope in the vicinity of the proposed abutment. Both of these physical limitations indicate that there will need to be special features incorporated in the structure to accommodate seepage pressures and flows.

Mark, you expressed some confusion over whether IDWR has jurisdiction over the dam based on the limited reservoir capacity (i.e. 9.5 acre feet). Bob Fleenor's letter basically reflected a memo forwarded to the S.O. from Loren Holmes, Southern Region Manager, indicating the the dam is about 20 feet high and therefore under review authority by IDWR-Safety of Dams. Essentially, as we discussed on the phone, dams impounding 10 acre feet or less in low hazard areas are exempt from IDWR Safety of Dams application, review and approval processes. However, I conducted a hazard evaluation of the project and determined that damage to the cropland (erosion) and Snake River (sedimentation), in the event of failure, poses a **significant** hazard. I have forwarded the hazard evaluation to the S.O. for review, the determination may be modified.

I recommend that the applicants submit an application to construct a dam (small or intermediate, as appropriate) to IDWR, regardless of specific rules and regulations interpretation. Reservoir volume is sensitive to embankment alignment and location at the site. To assert that the volume exempts the project from review at this stage, only to have it actually fall

under IDWR jurisdiction after construction, would pose difficulties for the owner to certify construction specifics for use approval. If there is any uncertainty whether the hydraulic height will be 20.0 feet or 20.1 feet, measured from the stream channel bottom to the operating water surface elevation, then an application to construct an intermediate-size dam should be filed. Additional information must also be provided in this case, see appropriate sections in enclosed rules and regulations. I would like to also comment on the item 4, in Fleenor's letter, that stream channel alterations are under Department regulatory authority. Project features such as the sediment retention wall, tailrace discharge facilities, any powerhouse pad work near the existing channel, and road fill encroachment on streams or springs, to name a few potential project features, would require coordination through Terry Blau, Stream Channel Specialist, in this office.

Water right application 47-08271 is being held at this office pending submittal of information required by rule 4,5,3 requested in October, 1991. If you have any questions please contact me.

Sincerely,

Douglas Jones

Douglas Jones, EIT
Engineering Specialist

cc JUB Engrs
IDWR-Safety of Dams

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boise Field Station
4696 Overland Road, Room 576
Boise, Idaho 83705

TAKE PRIDE IN AMERICA

JUB Engineers
RECEIVED
DEC 14 1992
TWIN FALLS, IDAHO

December 10, 1992

D.W. Block, P.E.
JUB Engineers
250 South Beechwood Avenue
Suite 1
Boise, Idaho 83709

Subject: Sahko Hydroelectric Project, First-Stage Consultation --Incomplete (503.0400)

Dear Mr. Block:

We have reviewed information provided with your correspondence of September 22, 1992, initiating first-stage consultation pursuant to the Federal Power Act, as amended, for the proposed Sahko Hydroelectric Project. We also attended the site visit for the proposed project on November 2, 1992. We have the following comments, in addition to comments provided in our letter dated October 21, 1992.

The Service is concerned about the project's potential impacts to riparian wetlands which may be found within and downstream of the project area. There is inadequate discussion of potential impacts to this resource in the information provided in your letter. Based on information gathered during the site visit, we believe a delineation of wetlands to be affected by the project will be necessary, pursuant to Section 404 of the Clean Water Act. We recommend you identify potential wetland mitigation needs as soon as possible, so that these needs may be included in early planning for development of the project.

We agree with your idea that benefits to fish and wildlife may occur by creating open-water and wetland habitat in an area which is presently upland habitat. This is based on the presumption that upland habitat is not limited in abundance in the area, and no sensitive species use existing upland habitat in the project area. Conversion of existing riparian wetland habitat to open-water habitat is perceived by the U.S. Fish and Wildlife Service as a loss for which mitigation would be necessary.

We also agree that some benefit may be provided by the project from removing sediments and contaminants from irrigation return flow water. We support the idea that close consultation with appropriate agencies must take place to ensure that, (1) development of wetland and open-water habitat enhances, not degrades, existing habitat which would be lost; (2) this new habitat would be managed in such a way as to not impair fish and wildlife populations (i.e.

draw the project down at appropriate times of year for needed maintenance, and monitor sediments to assure there is no accumulation of toxic materials; and (3) adequate bypass flow is provided to ensure that existing riparian and wetland areas which exist downstream from the project area will be maintained.

We suggest you complete studies to identify the following:

(1) Identify all riparian habitat and delineate all wetland habitat within and downstream of the project area, including habitat which will be directly and indirectly impacted from development of this project.

(2) Identify bypass flows which will be necessary to protect and enhance riparian and wetland areas downstream of the project.

(3) Identify mitigation measures necessary for impacts to existing fish and wildlife habitat, including wetlands.

(4) Survey the project area for wildlife species to determine the potential for impacts to those species from the proposed project.

(5) Make available for agency review transmission facility design plans with appropriate protection measures for migratory birds.

Included in the species list sent to you and copied to the Federal Energy Regulatory Commission (FERC) were five species of mollusks (proposed for listing under the Endangered Species Act (ESA) that occur in the Snake River near the proposed project. Based on the distance of the proposed project from the Snake River, we do not anticipate any impacts to these five mollusk species. If, in the FERC's evaluation of the project, a determination is made to the contrary, the Service will work with FERC to provide further consultation under Section 7 of the ESA.

The Service believes the applicant is still in First Stage Consultation for this project, and studies which the Service believes must be completed are recommended. The Service believes First Stage Consultation will be complete when we have a chance to review and comment on the applicant's proposed studies.

If you have any questions, please contact Ted Koch of this office at (208) 334-1931.

Sincerely,



Charles H. Lobdell
Field Supervisor

cc: FERC-OHL
FWS-FWE, Portland
IDFG, Program Coordination, Boise
IDFG, Region IV, Jerome

J•U•B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

March 18,1993

Mr. Charles Lobdell
Field Supervisor
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road, Rm. 576
Boise, ID 83705

Re: Application for License for Minor Water Power Project
Sahko Hydroelectric Project
Twin Falls County, Idaho
J. M. Miller Enterprises, Inc., Applicant

Dear Mr. Lobdell

Please be advised that the referenced project's configuration has changed in several respects, some of which we believe are relevant to the study requests you identified in your letter of December 10, 1992.

Identified below are the specific changes to the project. Of special note, however, is that the Applicant's *proposed water management practice has changed.* We understand from your past communications and your staff's comments during the on-site visit that the originally-proposed water management practice was largely responsible for the concerns you noted, and the study efforts you requested; thus, we find it most responsible to inform you of such changes at the earliest possible time in order to solicit your re-evaluation of the study requests cited.

For your comparative purposes, please find enclosed a revised project location/boundary map which will serve as the basis for the ultimate Exhibt G in the application to the FERC.

The most notable change, serving as basis for others, includes the substitution of a single impulse-type (Pelton) turbine replacing the two units previously identified. Because the original configuration would have operated with narrower ranges of efficiency, it was necessary to construct a larger dam, with a reservoir capacity, in order to better regulate power flows. This scenario would have resulted in a practice of causing a fluctuating water surface to best match turbine performance. In turn, we recognized that a fluctuating water surface could have significant cause-effect relationship with the permanent establishment of wetland habitat, and further relational effect on waterfowl and other wildlife using such newly established habitat.

Please know that, with the installation of an impulse-type, multi-nozzle Pelton wheel, it is now *imperative to best water management practice that any retained water body be maintained at a constant headwater elevation.* In effect , the now-proposed water body--in fact, the entire project--would operate as run-of stream.

The location and magnitude of the proposed embankment has also changed. Now that it will no longer be intended to fluctuate water surface elevation, the same head can be maintained by relocating the embankment approximately 350 ft. further upstream. This has resulted in the embankment's height extending 10 ft. from ditch invert instead of the originally proposed 20 ft., and with an axis length of 90 ft. rather than 240 ft. Upstream and downstream slopes will remain the same.

The location of the originally proposed concrete retaining wall, designed for collecting topsoil washed from irrigated cropland up-system, has also been moved further upstream, and has been revised to an earth-fill embankment. The new structure will still contain a "notch" overflow spillway; and, its new location will still be capable of adequate collection efficiencies to improve water quality downstream.

In order to accommodate de-watering for sediment removal, two new features have been incorporated with the upstream embankment: A bypass pipe installed through the embankment to de-water the basin to minimal depth; and, a gated, 550 ft. long bypass ditch near the project's upstream boundary in order to prevent flows from entering the basin while it is being cleaned out.

Overall water surface area has changed. Instead of the originally-proposed 1.7 acres, the retained water bodies comprising the forebay (downstream) and the sediment collection basin (upstream) will be 0.6 acres and 0.6 acres, respectively.

Overall volume of the water bodies has changed from 9.5 acre-ft. to 7 acre-ft.

The proposed penstock length has now been increased due to the embankments' relocations. The upper-most section of pipe is now proposed at 700 ft. instead of the previously-identified 350 ft.; that is, overall penstock length has increased from 1,600 ft. to 1,950 ft.. It is also proposed to *bury the entire length* of pipe from the embankment to the powerhouse.

IMPACTS AND MITIGATION

In that water surface elevations will be maintained, we would ask for your re-evaluation of the need for a wetland delineation. Given the new configuration, location, and intended water management policy, we believe that project installation will result in a significantly *enhanced and stabilized* area along the shallow perimeter of the forebay, including the two springs in the project's upper reach.

In order to assure that such mitigation efforts are not incorporated to the project as an after-thought, Applicant will make efforts *during construction* to provide for the placement or removal of fill material in order to establish permanent wetlands and riparian zones along the forebay's periphery. If the FERC conditions the license with a requirement for wetlands creation in the forebay area, Applicant will, during the project's design phase, engage a wetlands specialist and provide detailed topography of the affected area in order to define the placement or removal of fill material which would optimize habitat.

In order to maintain the proposed enhanced habitat, Applicant will take measures to prevent his cattle from grazing in the affected area. This will be accomplished by means of fencing the perimeter of the forebay. Applicant will continue, however, to provide for livestock watering from the springs, and will take measures to "gravity-pipe" spring water to a trough immediately adjacent to the springs but outside

the fenced area. The trough would outfall to approximately the same location as currently inundated by the springs.

In order to further foster the permanent establishment of wetlands along the length of the ditch, Applicant will fence the ditch along its east bank–the west bank is bounded by cropland–from the toe of the forebay's embankment to the location where the ditch transitions to the ravine.

As a result of the embankments' relocations upstream, several natural seeps on either side of the ditch will now contribute to the ditch downstream of the embankment. Given the absence of a fishery, we believe the seeps in this reach, as well as the numerous seeps from the canyon wall providing moisture to the riparian zone in the ravine, will contribute to continuing vegetative growth along the entire bypass reach.

We hope that, through this communication, you now have a sufficient understanding of the envisioned project to re-evaluate the basis for making your requests in previous correspondence. If you have continuing concerns which this communication does not appear to address, I would appreciate your contacting me as timely as possible. We are, in the interim, preparing a draft application reflecting these changes to the project and, in an effort to both move the project forward and recognize procedural propriety, will be submitting it to your office shortly to begin second-stage consultation.

If you have any questions, please let me know.

Sincerely,

D. W. "Bill" Block, P.E.
Authorized Agent

DWB/maa

cc: Jim Miller

enc.: Project Location Map

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boise Field Station
4696 Overland Road, Room 576
Boise, Idaho 83705

J-U-B Engineers
RECEIVED
APR 16 1993
TWIN FALLS, IDAHO

April 13, 1993

Mr. D. W. Block, P.E.
J-U-B Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, Idaho 83301

Subject: Sahko Hydroelectric, Preapplication Consultation

Dear Mr. Block:

The U. S. Fish and Wildlife Service (Service) has reviewed your letter of March 18, 1993, which describes several modifications in the plan of development for the Sahko Project. The changes proposed appear to satisfy most of our concerns with this proposal. We will likely have additional comments for you when we have reviewed a complete Draft License application for this project. We cannot insist that you perform studies or engage in pre-application surveys like wetland delineations. The Service only suggests that applicants do these kind of routine surveys to avoid later delays or misunderstanding. We still expect that your application materials will describe existing wetlands and other natural features at the project site and thoroughly discuss how the development of this hydroelectric facility will protect, mitigate and enhance those resources.

Sincerely,

Charles H. Lobdell
Field Supervisor

cc: IDFG, Region 4 (Dave Parrish)
IDFG, HQ, (Will Reid)
EPA, Boise
Corps, Boise (Flowers)

J•U•B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

April 23, 1993

SAMPLE

Mr. G. Dean Hilliard
Regulatory Branch
Army Corps of Engineers
Walla Walla District
Walla Walla, WA 99362-9265

Re: Application for License for Minor Water Power Project
Sahko Hydroelectric Project
Twin Falls County, Idaho
J. M. Miller Enterprises, Inc., Applicant
Second-Stage Consultation

Dear Mr. Hilliard:

On behalf of our subject client, we enclose a draft application for your review and request your comments, or further comments, as appropriate.

Please be advised that the project's configuration has changed in several respects and are *summarized* below. Details are further reflected in the draft application.

The most notable change, serving as basis for others, includes the substitution of a single impulse-type (Pelton) turbine replacing the two units previously identified. Because the original configuration would have operated with narrower ranges of efficiency, it was necessary to construct a larger dam, with a reservoir capacity, in order to better regulate power flows. This scenario would have resulted in a water management practice of causing a fluctuating water surface to best match turbine performance. In turn, we recognized that a fluctuating water surface could have significant cause-effect relationship with the permanent establishment of wetland habitat, and further relational effect on waterfowl and other wildlife using such newly established habitat.

With the installation of an impulse-type, multi-nozzle Pelton wheel, it is now *imperative to best water management practice that any retained water body be maintained at a constant headwater elevation.* In effect , the now-proposed water body_in fact, the entire project_would operate as run-of stream.

The location and magnitude of the proposed embankment has also changed. Now that it will no longer be intended to fluctuate water surface elevation, the same head can be maintained by relocating the embankment approximately 350 ft. further upstream. This has resulted in the embankment's water surface depth extending nine ft. from ditch invert instead of the originally

proposed 20 ft.; further, the embankment's height has decreased to 13.5 ft. from the originally-proposed 22 ft. In addition, the embankment's free-board has been increased to 4.5 ft. in order to provide for dam safety and absorbing a sudden run-off event from precipitation or irrigation flows. Fianlly, please be advised that a commensurate reduction in the embankment's length has occurred as a result of its downsizing; that is, the axis length will be 110 ft. rather than the 240 ft. initially proposed. Upstream and downstream slopes will remain the same.

The location of the originally proposed concrete retaining wall_designed for collecting topsoil washed from irrigated cropland above the project_has also been moved further upstream, and has been revised to an earth-fill embankment. The new structure will still contain an overflow spillway; and, its new location will still be capable of adequate collection efficiencies to improve water quality downstream.

In order to accommodate de-watering for sediment removal, two new features have been incorporated to the upstream embankment: A bypass pipe installed through the embankment to de-water the basin to minimal depth; and, a gated, 500 ft. long bypass ditch near the project's upstream boundary in order to prevent flows from entering the basin while it is being cleaned out.

Overall water surface area has changed. Instead of the originally-proposed 1.7 acres, the retained water bodies comprising the forebay (downstream) and the sediment collection basin (upstream) will be 0.6 acres and 0.6 acres, respectively.

Overall volume of the water bodies has changed from 9.5 acre-ft. to 7 acre-ft.

The proposed penstock length has now been increased due to the embankments' relocations. The upper-most section of pipe is now proposed at 700 ft. instead of the previously-identified 350 ft.; that is, overall penstock length has increased from 1,600 ft. to 1,950 ft.. It is also proposed to *bury the entire length* of pipe from the embankment to the powerhouse.

IMPACTS AND MITIGATION

Described below is a *summary* of anticipated impacts due to the revised project configuration. Details are reflected in the draft application.

Given the new configuration, location, and intended water management policy, we believe that project installation will result in a significantly *enhanced and stabilized* area along the shallow perimeter of the forebay, including the two springs in the project's upper reach.

In order to assure that such mitigation efforts are not incorporated to the project as an after-thought, Applicant will make efforts *during construction* to provide for the placement or removal of fill material in order to establish permanent wetlands and riparian zones along the forebay's periphery. If the FERC conditions the license with a requirement for wetlands creation in the forebay area, Applicant will, during the project's design phase, engage a wetlands specialist and provide detailed topography of the affected area in order to define the placement or removal of

fill material which would optimize habitat.

In order to maintain the proposed enhanced habitat, Applicant will take measures to prevent his cattle from grazing in the affected area. This will be accomplished by means of fencing the perimeter of the forebay. Applicant will continue, however, to provide for livestock watering from the springs, and will take measures to "gravity-pipe" spring water to a trough immediately adjacent to the springs but outside the fenced area. The trough would outfall to approximately the same location as currently inundated by the springs.

In order to further foster the permanent establishment of wetlands along the length of the ditch, Applicant will fence the ditch along its east bank_the west bank is bounded by cropland_from the toe of the forebay's embankment to the location where the ditch transitions to the ravine.

As a result of the embankments' relocations upstream, several natural seeps on either side of the ditch will now contribute to the ditch downstream of the embankment. Given the absence of a fishery, we believe the seeps in this reach, as well as the numerous seeps from the canyon wall providing moisture to the riparian zone in the ravine, will contribute to continuing vegetative growth along the entire bypass reach.

We understand that your agency has ninety days from the date of this letter to provide comments prior to submittal of the application to the FERC. On receipt of your comments we will prepare the application for submittal and address your further comments, as appropriate.

We would also re-iterate our request for your identification of any comprehensive state or regional plans which your agency administers.

If you have any questions, please let me know.

Sincerely,

D. W. "Bill" Block, P.E.
Authorized Agent

DWB/maa

cc: J. M. Miller Enterprises

enc. (4/93 draft application for FERC license)

IDAHO FISH & GAME
600 South Walnut
P.O. Box 25
Boise, ID 83707-0025

J-U-B Engineers
RECEIVED
MAY 18 1993
TWIN FALLS, IDAHO

May 14, 1993

Mr. D.W. Block
J.U.B. Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, ID 83301

Re: Sahko Hydroelectric Project
FERC No. 11060
Application for License for Minor Water Power Project
COMMENTS

Dear Mr. Block:

Idaho Department of Fish and Game personnel have reviewed your Stage Two Consultation, application for a minor license, for the Sahko Hydroelectric Project, FERC No. 11060. The proposed project would utilize irrigation return water from the Kastelu Drain. As proposed the project would have minimal impacts to fishery resources. Planned wetland mitigation at the project should compensate any wildlife impacts.

Sincerely,

Cal Groen, Chief
Natural Resources Policy Bureau

CG:WR:jj

cc: USFWS (Lobdell)
USBLM (Shoshone)
DEQ (Litke)

Cecil D. Andrus / Governor
Jerry M. Conley / Director

Equal Opportunity Employer

IDAHO FISH & GAME
600 South Walnut
P.O. Box 25
Boise, ID 83707-0025

J-U-B Engineers
RECEIVED
MAY 26 1993
TWIN FALLS, IDAHO

May 24, 1993

Mr. D.W. Block
J.U.B. Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, ID 83301

Re: Sahko Hydroelectric Project
FERC No. 11060
Application for License for Minor Water Power Project
COMMENTS

Dear Mr. Block:

Subsequent to my letter of May 14, 1993, I received correspondence from the Idaho Department of Fish and Game (IDFG) Region 4 office in Jerome. The regional personnel had stage two consultation comments that should have been included in my correspondence of May 14. I apologize for any inconvenience this may have caused.

An active bald eagle nest is located within the vicinity, upstream from the proposed construction site. Major construction activity (i.e. blasting) should be limited to time periods which will not disturb nesting.

A set-back zone needs to be established to protect the riparian vegetation bordering the impoundment. Over-grazing of the area has historically been a problem and our recommendation would be a minimum 50' set-back between the fence and the mean water level.

Vegetation established around the forebay should consist of native species of shrubs/willows and grasses. As stated on E-12, paragraph 1, IDFG will request the FERC to condition the license with a requirement for wetlands creation in the forebay area. We will require a wetlands specialist acceptable to IDFG, to conduct design work and implementation of mitigation.

It is stated that the "forebay area will be fenced." We recommend a post-and-pole fence or a five strand barb-wire fence to exclude cattle. Recent experience with electric fences to exclude cattle from wetlands have been negative.

Cecil D. Andrus / Governor
Jerry M. Conley / Director

Equal Opportunity Employer

A number of positive aspects can be realized from this project. Wetlands creation, improvement in water quality of the Snake River, improved grazing management, and improved waterfowl habitat are just a few of the possibilities.

Sincerely,

Will Reid
Fishery Program Coordinator

WR:tlv

cc: USFWS (Lobdell)
USBLM (Shoshone)
DEQ (Litke)
Region 4

IDAHO STATE HISTORICAL SOCIETY

CECIL D. ANDRUS, Governor

Director
210 Main St.
Boise, Idaho 83702
208-334-2682

Archaeology
210 Main St.
Boise, Idaho 83702
208-334-3847

Education
610 N. Julia Davis Dr.
Boise, Idaho 83702
208-334-2120

Genealogical Library
450 N. 4th St.
Boise, Idaho 83702
208-334-2305

Historic Preservation
210 Main St.
Boise, Idaho 83702
208-334-3847, 3861

Library and Archives
450 N. 4th St.
Boise, Idaho 83702
208-334-3356

Museum
610 N. Julia Davis Dr.
Boise, Idaho 83702
208-334-2120

Old Idaho Penitentiary
2445 Old Penitentiary Rd.
Boise, Idaho 83712
208-334-2844

Oral History
210 Main St.
Boise, Idaho 83702
208-334-3863

Publications
450 N. 4th St.
Boise, Idaho 83702
208-334-3428

J-U-B Engineers
RECEIVED
JUN 23 1993
TWIN FALLS, IDAHO

June 21, 1993

Mr. Bill Block
JUB Engineers
800 Falls Avenue
Twin Falls, Idaho 83301

RE: Sahko Hydroelectric Project - FERC #11060

Dear Mr. Block:

Thank you for forwarding the Application for License for the Sahko Hydroelectric Project (FERC #11060). After reviewing the document, we suggest a revision to the section on Historic, Archaeological and Cultural Resources (page E-16). The first paragraph states that "no resources of cultural or historic import are known to exist in the project area." It should be clarified, however, that the area has never been inspected for sites in the past.

Lacking survey information on the location, we continue to recommend that the project area be inspected for historic properties (36 CFR 800.4). Without an inspection, we cannot determine whether or not cultural resources exist within the project area. Depending upon the results of the investigations, we may recommend avoidance, archaeological testing, or monitoring of construction activities.

These recommendations are consistent with our comments of November 18, 1992 and with your summary of our consultation in the application on page E-21. If you have any questions, feel free to contact either myself or Suzi Neitzel at 208-334-3847.

Sincerely,

Robert M. Yohe II
Deputy State Historic
Preservation Officer

RMY/spn
cc: Ron Corbyn, NPS

J-U-B Engineers
RECEIVED
SEP 27 1993
TWIN FALLS, IDAHO

IDAHO STATE HISTORICAL SOCIETY

Preserving Idaho's Past

John R. Hill, Director

Cecil D. Andrus, Governor

September 23, 1993

Mr. Bill Block
JUB Engineers
800 Falls Avenue
Twin Falls, Idaho 83301

RE: Sahko Hydroelectric Project - FERC #11060

Dear Mr. Block:

Thank you for forwarding the report documenting the archaeological inspection of the Sahko project area. The investigations were completed by James C. and Cynthia L. Woods, Twin Falls, Idaho.

The report indicates that one archaeological site (FS-1, a historic dump) and an isolated find were identified in the survey. We agree that the isolate is not eligible for the National Register and requires no further consideration. After reviewing the information, however, we feel that the historic dump may be eligible for the National Register. An existing road to be used for access to the Sahko project passes through the westernmost portion of the site. The report recommends that this segment of road should be used as is, with no alterations or improvements. Provided that these recommendations are followed, the project can be completed with no effect on historic properties. Our office should be notified immediately, however, if archaeological remains are discovered during project construction.

We appreciate your cooperation. If you have any questions, feel free to contact either myself or Suzi Neitzel at 208-334-3847.

Sincerely,

Robert M. Yohe II
State Archaeologist and
Deputy SHPO

RMY/spn

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
WALLA WALLA, WASHINGTON 99362-9265

June 30, 1993

REPLY TO
ATTENTION OF:
Operations Division

SUBJECT: NPW No. 930201010

J-U-B Engineers
RECEIVED
JUL - 6 1993
TWIN FALLS, IDAHO

Mr. D. W. Block
J-U-B Engineers, Inc.
800 Falls Ave., Suite 1
Twin Falls, Idaho 83301

Dear Mr. Block:

This is in response to the draft Application for License for Minor Project for the proposed Sahko Hydroelectric Project (FERC No. 11060). We have reviewed the document and offer the following comments.

1. It is apparent from your draft license application that the placement of fill material in the form of earth and concrete will be required below the plane of ordinary high water in the Kastelu Drain for the construction of your project. Since the Kastelu Drain is a jurisdictional water of the United States, a Department of the Army permit will be required prior to the placement of this fill material.

2. National Wetland Inventory maps, prepared by the U.S. Fish and Wildlife Service, indicate the presence of palustrine emergent, seasonally flooded and palustrine scrub-shrub, seasonally flooded, wetlands on the proposed project site. A wetlands delineation, using the Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1 (87 Manual), should be performed to identify all jurisdictional wetlands that exist within the project area.

3. Once a jurisdictional wetland delineation of the affected property has been completed, it should be submitted to our Boise Regulatory Field Office for review and concurrence.

4. Once the wetland delineation has been completed and approved by our Boise Field Office, you should identify all unavoidable jurisdictional wetland areas to be affected either upstream or downstream of the proposed project. The impacts associated with the project include all impacts to wetlands or waters of the United States through direct fill and indirect impacts through

flooding or the restriction of the normal flow of water. All jurisdictional wetlands located within the pool area and riparian wetlands immediately downstream affected by the project should be identified.

5. Should impacts to jurisdictional wetlands occur due to the construction of this project, mitigation for these losses should be provided by the applicant. Any required mitigation should consist of in-kind, in-place mitigation at a one to one ratio, if possible. Enhancement of existing, degraded wetlands not affected by the project is possible, but at a much greater ratio of mitigation to impact area, depending upon the mitigation action proposed.

6. Should mitigation be required for the loss of existing wetland areas, a detailed mitigation plan must be submitted to our office for review and acceptance prior to issuance of a Department of the Army permit.

7. Any fill material required to be placed in Kastelu Drain at the powerhouse outlet will, also, require a Department of the Army permit prior to the work being performed.

8. What is the location of all borrow sites for the construction of the dam embankments and related facilities? Will jurisdictional wetlands or other waters of the United States be impacted by the removal of fill material at this location?

9. What is the location of the disposal area to receive the spoil from the penstock and other excavation? Will jurisdictional wetlands or other waters of the United States be impacted by the disposal of spoil material at this location?

10. What is the location of the disposal area to receive the sediment that will accumulate in the sediment collection facility? Will jurisdictional wetlands or other waters of the United States be impacted by the disposal of sediment material at this location?

11. How will you insure the successful establishment of vegetation to be planted at disturbed areas where the penstock will be buried?

12. How will the dam, powerhouse and related facilities be designed to reduce visual impacts within the Snake River Canyon?

Please feel free to write or call Mr. Robert Flowers at our Boise Field Office at Lucky Peak Project, HC 33 Box 1020, Boise, Idaho 83706, (208) 343-0761, if you have questions or require further information.

Sincerely,

A. Bradley Duly

for G. Dean Hilliard
Chief, Regulatory Branch

Copies Furnished:

J.M. Miller Enterprises
Post Office Box 595
Twin Falls, Idaho 83303

Ms. Lois D. Cashell, Secretary
Federal Energy Regulatory Commission
Office of Hydropower Licensing
Division of Project Review
825 North Capitol Street, NE
Washington, D.C. 20426

Department of Water Resources
Southern Region
222 Shoshone Street East
Twin Falls, Idaho 83301

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boise Field Station
4696 Overland Road, Room 576
Boise, Idaho 83705

J-U-B Engineers
RECEIVED
JUL 19 1993
TWIN FALLS, IDAHO

July 14, 1993

Mr. D. W. "Bill" Block, P.E.
J.U.B. Engineers
800 Falls Avenue
Twin Falls, Idaho 83301

Subject: Draft License Application for the Sahko Hydroelectric Project (FERC No. 11060)

Dear Mr. Block:

The U. S. Fish and Wildlife Service (Service) has reviewed the subject Draft License for the proposed Sahko project to be located on the Kastelu drain, a tributary of the Snake River in Twin Falls County, Idaho. The Service has several comments for you to consider in preparation of the final license application for this project. Our general comment is that we foresee few difficulties in your development of this project if adequate planning precedes construction and operation. Our comments at this time seek to gain additional detail and clarification to enable us to prescribe Federal Power Act Section 10(j) license conditions when the Federal Energy Regulatory Commission (FERC) proceeds with this proposal.

Specific Comments

1. Regarding the fencing plan for mitigation areas, we would like to have you more precisely define where the lands are located that will be protected from cattle grazing. An appropriately scaled map of the project mitigation area would suffice.

2. You should indicate where and how you will dispose of sediments removed from the sediment retention basin at the project. Also analyze the potential environmental impediments of disposal of these sediments and your proposed solutions to these problems.

3. The Service prefers to have an approved plan for wetland mitigation prior to licensing of hydroelectric projects. Our experience is that this strategy avoids delays and controversy at a later date as construction deadlines begin to loom. We will be happy to work with your consultant and the Idaho Department of Fish and Game (IDFG) to this end. The present Draft application has no plan for us to review. We further encourage you to consult with the Corps of Engineers and Environmental Protection Agency on this issue.

4. As part of the mitigation planning for this project, we recommend that you obtain certified weed-free seed mixtures of native plants for the purpose of revegetating of areas disturbed during construction.

5. The Service will recommend, as a license condition, that you remove accumulated sediments at the forebay sediment retention basin without disturbing wetland vegetation that becomes established there. You should indicate in the final license application what your plan is to accomplish this goal.

6. The Service recommends that you develop a detailed plan that describes how water will be provided to maintain wetland and riparian habitats downstream of the penstock intake. Several springs and a considerable amount of riparian vegetation exist there and require careful water supply planning to insure their continued habitat value. Similarly, the plan to pipe water from the springs near the project for stock water needs to indicate, more than in a general sense, that the wetland habitats associated with the springs are preserved. Flow proposals to maintain these habitats would enable the FERC to incorporate specific recommendations into the license for this project.

7. The Service recommends that you develop transmission line concepts that are raptor-proof to prevent electrocutions of raptors and other migratory birds.

Thank you for the opportunity to review the Draft application. If you have any questions on these comments, please direct them to Jim Esch at 334-1931.

Sincerely,



Charles H. Lobdell
Field Supervisor

cc: IDFG, Region 4
IDFG, HQ (Will Reid)
FERC, DC, OHL
EPA, Boise
Corps, Boise

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

J-U-B Engineers
RECEIVED
JUL 22 1993
TWIN FALLS, IDAHO

July 21, 1993

ATTN: Bill Block
JUB Engineers, Inc.
800 Falls Ave., Suite 1
Twin Falls, ID 83301

RE: Sahko Hydroelectric Project

Dear Bill,

We have received the Second-Stage Consultation report for the project and have conducted local review. I noted that various design changes have been made since the previous submittal. The following are comments about aspects of the project under IDWR jurisdiction.

Design changes reducing the height and storage capacity of the diversion facility categorize the development below the minimum size of a "dam". The reduced size has lowered the downstream hazard, as determined by Department methods, to minimal levels. The combination of reduced size and low hazard have apparently removed the project from Safety of Dams jurisdiction.

Moving the diversion dam upstream, away from the known seepage and soil slough area, should improve the chance of encountering better foundation conditions, though confirmation of this by site review has not been attempted. If a site visit is planned please contact this office to coordinate time and place.

Two elements of the project, at least, require a separate stream channel alteration permit, namely the sediment retention structure and the tail race return to the stream channel. Terry Blau, Stream Channel Protection Specialist, is the person that you need to coordinate with in this office.

If you have any questions please contact Loren Holmes, Terry Blau, or myself at the above address/phone.

Sincerely,

Douglas Jones, EIT
Engineering Specialist

cc: File 47-08271
D. Hollingshead

APPENDIX 3

Wetland Delineation Report and Conceptual Wetland Mitigation Plan

MONTGOMERY WATSON

October 28, 1993

Mr. Jim Miller
J.M. Miller Enterprises
c/o Miller Engineering
P.O. Box 7995
Ann Arbor, MI 48107

Subject: Wetland Delineation Report and Conceptual Wetland Mitigation Plan
Sahko Hydroelectric Project - Twin Falls, County, ID

Dear Mr. Miller:

This letter report presents the findings of the wetland delineation study and conceptual wetland mitigation plan conducted for the Sahko Hydroelectric Project (Project) located on the south side of the Snake River along the Kastelu Drain, approximately three miles northwest of Filer in Twin Falls County, Idaho. The information presented in this letter report is based on a field reconnaissance of the Project site by Montgomery Watson personnel on October 8, 1993 and published literature. Maps prepared for this wetland delineation study and conceptual wetland mitigation plan have been incorporated in the draft Application for License for Minor Project. The wetland delineation study and conceptual mitigation plan was authorized by our contractual agreement dated October 5, 1993.

STUDY AREA DESCRIPTION

The Project study area is located in the SE 1/4 of NE 1/4 of Section 13, and NE 1/4 of NE 1/4 of Section 13, Township 9 South, Range 15 East, Twin Falls County, Idaho. The study area is situated entirely on private property owned by J.M. Miller Enterprises. The study area is characterized as a topographic draw containing the Kastelu Drain which carries surface water drainage and irrigation return flows through the property, over the Snake River canyon rim, and discharges into the south side of the Snake River, approximately one-half mile beyond the project boundary. The study area land use is characterized as undeveloped agricultural, presently used for livestock grazing.

STUDY OBJECTIVES

The objectives of the wetland study for the Project is to obtain an independent evaluation of potential jurisdictional wetlands within the Project area and to develop a conceptual wetland plan for mitigation of Project impacts to jurisdictional wetlands. Identification and delineation of jurisdictional wetlands has been conducted according to the criteria in the *1987 Corps of Engineers Wetlands Delineation Manual*[1]. The delineation includes descriptions of

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major vegetative communities and a preliminary, partial species list, along with documentation of soils and hydrology throughout the Project study area. Results of the wetland identification and delineation have been used to determine the number of acres of wetland impact which could occur from the proposed Project and to identify opportunities for mitigation of wetland impacts.

STUDY METHODS

The wetland study consisted of several steps, including consultation, field reconnaissance, plant identification, wetland delineation mapping, and conceptual wetland mitigation planning. These study methods are briefly discussed in the following.

Consultation

Consultation was conducted with Mr. Tracy Ahrens of J-U-B Engineers, Inc., Twin Falls, Idaho regarding history of the Project, the Project components, and potential environmental impacts to wetlands. Montgomery Watson reviewed the draft Federal Energy Regulatory Commission (FERC) Application for License for Minor Project[2]. Additional literature research was conducted by Montgomery Watson regarding the soils and groundwater resources of the Twin Falls area.

Field Reconnaissance

The field reconnaissance was conducted by Montgomery Watson personnel in the Project study area on October 8, 1993. On-site evaluation of vegetation, soils, and hydrology was performed throughout the Project impact reach along the Kastelu Drain.

Plant Identification

Plant specimens were collected from the Project study area and keyed out for species identification. Identified plants have been compiled into a preliminary partial species checklist (Appendix A). The species checklist is considered partial because not all minor species existing on the site have been identified. Stratum and wetland indicator status for each species are listed on the checklist.

Wetland Delineation Mapping

A map delineating jurisdictional wetlands along the Project impact reach of Kastelu Drain has been developed based on information gathered during the field reconnaissance. The map delineates jurisdictional wetlands within the Project study area and also shows the wetland/upland boundary. Routine Determination On-Site Inspection Method Data Forms are included in Appendix B. Soils and hydrology have been analyzed in wetland areas to determine if Federal wetland criteria are satisfied. A second map has been prepared to present projected impacts from the Project to jurisdictional wetlands.

Conceptual Wetland Mitigation Planning

Opportunities for wetland mitigation were assessed during the field reconnaissance. The potential Project impacts to existing wetlands mitigation were assessed during the field reconnaissance, and mitigation options were identified. The quantity of wetland impacts under the Project was estimated, and the conceptual wetland mitigation plan was developed to compensate for projected losses of jurisdictional wetland. A third map has been prepared to present the conceptual wetland mitigation plan.

WETLAND EVALUATION

The study area has been evaluated using U. S. Army Corps of Engineers (Corps) criteria for wetland delineation as described in the 1987 wetland delineation manual[1]. This delineation procedure is currently being used by the Corps. The technical criteria for wetland delineation are based on three factors: 1) presence of hydrophytic vegetation, 2) presence of hydric soils, and 3) presence of wetland hydrology.

The wetlands delineation criteria[1] also take into account environmental differences in various wetland systems such as disturbed and seasonal wetlands. These wetlands include man-induced (artificial) wetlands, drained wetlands, irrigated wetlands, and areas that may be inundated or saturated during a portion of the growing season.

The three basic criteria of the Corps manual[1] for identifying and delineating jurisdictional wetlands are described as follows.

Vegetation Criteria. The presence of hydrophytic vegetation is determined by reviewing the wetland indicator status of the dominant species in each plant community. A plant community is determined to satisfy the hydrophytic vegetation criteria if 50 percent of the dominant species within the community have a wetland indicator status of obligate wetland, facultative wetland, or facultative. Plant indicator status is determined from the National List of Plant Species That Occur in Wetlands[3].

Soils Criteria. Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper soil layer. Generally hydric soils are saturated, flooded, or ponded usually for one or more weeks during the period when soil temperatures are above 41° F (biologic zero). Soils under these conditions usually support hydrophytic vegetation.

There are two general types of hydric soils, hydric organic soils and hydric mineral soils. Hydric organic soils are easily recognizable as black-colored muck or black to dark brown peat. They have more than 30 percent organic matter and usually are saturated for long periods of time. Hydric mineral soils are typically characterized as having less than 20 percent organic matter with the remaining soil comprised of mineral materials. They are

periodically saturated for a sufficient amount of time to produce chemical and physical soil properties associated with a reducing environment. Hydric mineral soils are usually gray or mottled immediately below the surface horizon or they have thick, dark surface layers overlying grayish subsurface horizons.

Wetland Hydrology Criteria. Wetland hydrology is defined as the permanent or periodic inundation, or soil saturation for a significant period (usually a week or more) during the growing season. This saturation of the soil usually supports hydrophytic vegetation.

Routine Determination - On-Site Inspection

The Routine Determination, On-site Inspection method[1] was used in the identification and delineation of wetland vegetation within the wetland study area. The study area was inspected by walking throughout the site to identify plant species and community types present. A preliminary species checklist is included in Appendix A, listing botanical and common plant names, wetland indicator status, and stratum. Data Forms for Wetland Determination are included in Appendix B for reference. These forms document the characterization of the wetland and non-wetland plant communities.

Hydrophytic Vegetation. The dominant plant species growing in each community type have been reviewed for their wetland indicator status to determine if the Federal criterion for hydrophytic vegetation is satisfied. Two of the three identified plant community types have been determined to satisfy the wetland vegetation criterion. These wetland vegetation communities comprise approximately 2.04 acres within the Project study area. After the wetland status of each plant community has been defined, soils and hydrology within each community are assessed and characterized.

Soils. Soils within each wetland plant community have been assessed by excavating soil pits and comparing the soil colors to the Munsell Soil Color Chart[4]. The soils have been inspected to determine the amount of organic material and if anaerobic conditions are present indicating soil saturation or inundation. The soils are further characterized as to whether they are gleyed or mottled. Soils in two of the three plant community types in the Project study area meet the hydric soil criterion.

Hydrology. Hydrology of the Project study area has been assessed by inspecting potential sources of water that saturate the soils and provide for the growth of wetland plant species. Soil test pits, rock outcrops, other geologic features, and surface drainage patterns can be used to help determine the presence or absence of wetland hydrology. Two of the three plant community types in the Project study area meet the wetland hydrology criterion.

RESULTS OF THE WETLAND DELINEATION

This section of the letter report presents the results of the wetland delineation conducted within the Project study area. The plant community types, soils, and hydrology within the Project study area are described.

Wetland Community Types

The wetland plant community types identified and delineated within the Project study area are briefly described in terms of vegetation, soils, and hydrology in the following sections.

Sedge Community Type. This wetland community type persists in several low-lying areas adjacent to the drain channel. The sedge wetland communities are dominated by Nebraska sedge, water sedge, slenderbeaked sedge, and rushes in the herbaceous stratum. Dock and rabbitfoot grass are secondary plant species mixed into the sedge plant community type. Adjacent areas which transition toward drier soil conditions are vegetated with foxtail barley and other grass species. There are no overstory tree or shrub species within this plant community. Several well-defined areas along the drain have floating mats covered with this vegetation composition.

The soils within the sedge community are inundated or saturated to the surface during substantial periods of the growing season supporting a prevalence of sedge-dominated wetland vegetation. Soil pit No. 1 (Figure E-2), which is located approximately in the middle of the proposed forebay within the sedge community type, has ten inches or more of anaerobic topsoil comprised of very black, decomposing organic matter, sediments, and decomposed cow manure. Water is ponded in this test pit to the ground surface level. Soil test pit No. 2 is located near the upper end of the proposed sediment collection basin. Soils within this test pit are saturated to the surface or inundated with one to two inches of standing water and are characterized as anaerobic soils comprised of decomposing vegetation mixed with fine sediments and cow manure. The soils within this test pit were unconsolidated at a depth of two feet. The hydrology of the sedge community type is characterized by surface flows in the Kastelu Drain and subsurface water which flows across the top of basalt bedrock and discharges into the lower elevation topography surrounding the Kastelu Drain. The source of the subsurface water is expected to be irrigation water applied to farm fields on the south side of the Snake River. Livestock grazing in the sedge community type has impacted the wetland vegetation and soils. The sedge plant community type meets the Federal criteria for jurisdictional wetlands and covers approximately 1.65 acres along the Kastelu Drain.

Springs. There are two well-defined springs which enter the Kastelu Drain on the south side (Figure E-2). The channels which convey flows from these springs are relatively narrow in width ranging from approximately five to ten feet and are vegetated with water-cress, duckweed, sedges, and nightshade. These springs appear to flow throughout most or all of the growing season. The source of water emanating from the springs is thought to be irrigation water applied to adjacent agricultural lands which flows subsurface across the top

FIGURE E-2

JURISDICTIONAL WETLANDS

SAHKO HYDROELECTRIC PROJECT

(J-U-B is preparing Figure E-2 from maps provided by Montgomery Watson)

of the basalt bedrock. The channels collect sediments and associated nutrients which enhance the growth of hydrophytic vegetation. Livestock grazing has impacted the vegetation and soils associated with the springs. The springs and wetland vegetation adjacent to them meet the Federal criteria for jurisdictional wetlands and are included in the estimated 1.65 acres of jurisdictional wetlands identified with the sedge community type.

Riparian Scrub Shrub Community Type. The riparian scrub shrub community type is made up of a narrow band (approximately ten feet wide) of shrubs and wetland grasses along either side of the Kastelu Drain extending from approximately 400 feet downstream of the intake embankment to the canyon rim and down the canyon face to the bottom of the canyon (Figure E-2). The vegetation is comprised of willow, currant, rose, sedges, water-cress, nightshade, and other forbs and grasses. The perennial hydrology to maintain the riparian scrub shrub vegetation is derived from precipitation runoff, flow of subsurface water, and irrigation return flows within the Kastelu Drain. The riparian scrub shrub plant community type meets the Federal criteria for jurisdictional wetlands and covers approximately 0.39 acres along the Kastelu Drain in the Project study area.

Mixed Upland Shrub/Rock Community Type

The mixed upland shrub/rock community type occurs on non-agricultural lands adjacent to portions of the wetland communities along the Kastelu Drain. The vegetation in this community type is dominated by Rocky Mountain juniper in the overstory, big sagebrush and rabbit-brush in the shrub stratum, and cheatgrass and other upland grasses in the herbaceous stratum. Livestock grazing has altered the native vegetation pattern of this community type. Some of the mixed upland shrub/rock community type is interspersed among the wetland areas. The soils are dry, comprised of silty sands and clay with no apparent source of water to support vegetation except precipitation. This community type does not meet Federal criteria for jurisdictional wetlands.

WETLAND IMPACTS RESULTING FROM THE PROJECT

Impacts to jurisdictional wetlands would result from construction and operation of the sediment basin, forebay, and penstock components of the proposed Project. A total of approximately 0.85 acres of jurisdictional wetlands would be directly and indirectly impacted by the proposed Project (Figure E-3). This includes approximately 0.12 acres of jurisdictional wetlands permanently impacted by placement of fill material to construct embankments for the development of the sediment pond and forebay, and approximately 0.03 acres of jurisdictional wetlands temporarily impacted by construction of the penstock. An additional 0.70 acres of jurisdictional wetlands would be covered with ponded water within the forebay and sediment basin impoundments. The riparian scrub shrub community type downstream of the proposed Project is expected to receive minimal indirect impacts from diversion of Kastelu Drain flows into the penstock. The irrigation return flows in this reach of the Kastelu Drain are expected to provide minimal water supply for the riparian vegetation, with the primary water supply coming from subsurface water.

FIGURE E-3

PROJECTED IMPACTS TO JURISDICTIONAL WETLANDS

SAHKO HYDROELECTRIC PROJECT

(J-U-B is preparing Figure E-3 from maps provided by Montgomery Watson)

CONCEPTUAL WETLAND MITIGATION PLAN

Impacts to jurisdictional wetlands will require mitigation to meet the concerns of fish and wildlife resource management agencies and also to meet the conditions of the 404 permit that must be obtained for the Project. The extent of impacts to wetlands has been reduced by down-sizing of the Project as presented in the draft FERC Application For License[2]. This reduction in the quantity of wetland impacts demonstrates the applicant's efforts to avoid and minimize wetland impacts as addressed in the Memorandum of Agreement (MOA) between the Corps and U. S. Environmental Protection Agency (EPA) regarding wetlands regulated under section 404 of the Clean Water Act. After avoiding and minimizing impacts to wetlands, the MOA considers mitigation for impacts and losses of wetland habitat. The amount and type of wetland mitigation is subject to consultation and negotiation with the Corps, EPA, and U. S. Fish and Wildlife Service (USFWS), and also includes consultation with state resource management agencies such as the Idaho Department of Fish and Game.

A conceptual wetland mitigation plan has been prepared for the proposed Project and is shown in Figure E-4. A total of 1.62 acres of wetland mitigation would be provided as part of the proposed Project. The wetland mitigation concepts include a variety of on-site, in-kind opportunities including protection and enhancement of existing non-impacted wetland areas by excluding livestock grazing, development/expansion of shallow water sedge wetland areas in the upper portion of the forebay impoundment, development of open water habitat in the downstream half of the forebay impoundment and in the sediment basin impoundment, protection and enhancement of existing springs tributary to the Kastelu Drain, and development of wildlife habitat components within the Project area such as nesting boxes and wildlife cover. Wetland mitigation areas would be monitored and maintained to meet mitigation objectives established for the Project.

Protection of Wetlands From Livestock Grazing

Existing wetland areas and riparian vegetation upstream of the proposed forebay embankment which will not be impacted by implementation of the Project would be excluded from livestock grazing by the construction and maintenance of permanent fencing. Alleviation of livestock grazing within these areas would allow for recovery of existing wetland and riparian vegetation and enhancement of the soil structure. The Project study area upstream of the forebay embankment would be fenced to exclude livestock grazing for protection of existing and mitigation wetland, riparian, and upland vegetation, the integrity of the impoundment embankments, and water quality.

Permanent fencing consisting of either post-and-pole or five strand barb-wire would be constructed around the Project study area to exclude livestock grazing. The fence would be aligned to include a 25 foot-wide buffer of upland vegetation and also provide for livestock watering. Approximately 2.29 acres of existing and mitigation wetlands would be permanently excluded from livestock grazing. The 25 foot-wide buffer of adjacent mixed

FIGURE E-4

CONCEPTUAL WETLANDS MITIGATION PLAN

SAHKO HYDROELECTRIC PROJECT

(J-U-B is preparing Figure E-4 from maps provided by Montgomery Watson)

upland shrub/rock community type would be excluded from livestock grazing to provide protection to the overall ecosystem of the Project study area.

Wetland Development/Expansion in the Forebay Impoundment

Construction of the forebay component of the Project would result in development of approximately 0.29 acres of riverine[5], open water wetland surrounded by 0.82 acres of palustrine wetland habitat. The downstream half of the forebay impoundment would be maintained as open water with a minimum depth of 2.5 feet to prevent hydrophytic vegetation from growing and interfering with operation of the hydropower project (Figure E-4).

The upper half of the forebay impoundment would be planted with and managed for growth of indigenous persistent wetland vegetation including sedges, rushes, and wetland forbs. Upland areas adjacent to and within the impoundment would be converted to vegetated wetlands with water depths ranging from one to three inches deep, as shown on Figure E-4. The upland conversion would involve excavating upland soils to an elevation below the forebay water surface elevation. Soils excavated from wetlands in the sediment basin and downstream half of the forebay would be placed in the areas designated for conversion from uplands to vegetated wetlands. These shallow water areas would then be transplanted with indigenous persistent emergent vegetation such as Olney threesquare, Torrey's rush, water sedge, and Nebraska sedge, with willows transplanted around the edge of the wetland areas. The planting density of wetland vegetation would be approximately 2,000 transplants per acre. Wetland vegetation growing within the upstream half of the forebay would be retained and not removed as part of Project maintenance. This vegetation also would help filter out fine sediments passing in the water from the sediment basin and from the bypass ditch during periodic maintenance cleaning of sediments from the sediment basin.

The inside perimeter of the forebay impoundment would be planted with indigenous persistent vegetation such as sedges, rushes, and wetland forbs. The constant water surface elevation in the forebay impoundment would help ensure continued water supply to the wetland vegetation and soils.

The impoundment embankment would be planted with indigenous upland grasses. No tree or shrub species would be planted on the structural portions of the embankment to protect its structural integrity. Indigenous riparian trees and shrubs such as cottonwood, willow, currant, and wild rose would be planted in clump formations around the outside perimeter of the impoundment embankment.

Wetland Development/Expansion in the Sediment Basin Impoundment

The sediment basin impoundment would provide for development of approximately 0.57 acres of open water wetland habitat. The sediment basin impoundment would be maintained as open water with a minimum depth of 2.5 feet to prevent growth of hydrophytic vegetation (Figure E-4). The open water condition would provide for periodic cleaning of sediments

from the sediment basin without disturbing persistent emergent vegetation. The sediments removed from the sediment collection basin would be excavated and disposed away from the wetlands and riparian areas within the Project study area. Approximately 0.23 acres of existing upland area would be converted to open water as part of the proposed Project. Adjacent uplands of approximately 0.04 acres would be converted to vegetated wetlands through excavation, placement of wetland soils, and planting with hydrophytic vegetation, similar to that proposed for the forebay impoundment.

Enhancement and Development of Wildlife Habitat

Wildlife habitat would be enhanced and developed for song birds, waterfowl, reptiles, and small mammals by the placement of nesting platforms around the forebay area, development of open water areas, and the establishment of woody and wetland vegetation. Several woody debris piles would be strategically placed within the Project area to provide cover for small mammals. The development of the forebay impoundment, sediment pond, associated sediment accumulations, and wetland vegetation would provide opportunities for sustaining aquatic and terrestrial macroinvertebrates to enhance the food chain within the wetlands to benefit birds, reptiles, and small mammals.

Protection and Enhancement of Existing Springs

The two existing springs tributary to the Kastelu Drain would be protected from impacts associated with the Project. The forebay water surface elevation would be lower than the elevation of the springs. Permanent fencing would be constructed to exclude livestock from wetland and riparian areas immediately downstream of the springs and also allow for livestock watering using the spring water. Exclusion of livestock grazing from the wetland and riparian areas immediately downstream of the springs would allow for enhancement and recovery of the soil structure and wetland vegetation.

Monitoring and Maintenance of Wetland Mitigation

The re-established and transplanted vegetation in mitigation areas would be monitored and maintained as part of the wetland mitigation plan. Monitoring would involve establishing pre-construction photo-points, estimating pre-construction plant densities, taking post-construction photographs annually from the photo-points, and conducting post-construction plant density monitoring in the mitigation areas. Wetland mitigation areas not meeting pre-construction plant densities after five years following the Project construction would be planted with additional transplants to meet established mitigation objectives.

SUMMARY

The Sahko Hydroelectric Project wetland study area contains delineated jurisdictional wetlands covering approximately 2.04 acres, of which approximately 0.85 acres would be impacted by implementation of the proposed Project (Figure E-3). The potential wetland

impact includes conversion of 0.73 acres from livestock-grazed sedge wetland to fenced open water and vegetated wetlands (Figure E-4). The jurisdictional wetlands and upland/wetland boundaries are delineated on the Figure E-2. Any wetland areas which would be impacted are subject to mitigation under the Clean Water Act as administered by the Corps and EPA. The conceptual wetland mitigation plan includes livestock exclusion from wetland, riparian, and adjacent upland areas, conversion of livestock-grazed wetlands to open water and inundated wetlands, and wetland expansion through upland conversion to vegetated wetlands and open water habitat (Figure E-4). A total of approximately 1.93 acres of wetland mitigation would be conducted as part of the proposed Project, including exclusion of livestock from existing wetlands that would not be impacted by the Project. Wetland mitigation by exclusion of livestock from existing wetlands not impacted by the Project would total approximately 0.31 acres. Approximately 38 percent of the planned wetland mitigation would involve conversion of uplands to vegetated wetlands or open water wetland habitat. The ratio of wetland mitigation to wetland impacts is 2.27:1, based upon total wetland impacts. The ratio of wetland mitigation to permanent wetland impacts is 7.42:1, not including 1) existing livestock-grazed wetlands converted to open water habitat or inundated wetland area (0.73 acres), and 2) existing livestock-grazed wetlands upstream of the forebay embankment which would be fenced to exclude livestock grazing (0.31 acres).

Montgomery Watson appreciates the opportunity to provide wetland consulting services on the Sahko Hydroelectric Project, and we look forward to working with you on implementation of a wetland mitigation plan. We would be happy to discuss the information presented in this letter report with you. Please call us at (208) 345-5865 if you have any questions or desire further information.

Sincerely,

MONTGOMERY WATSON

Brian D. Liming
Project Manager

Christine L. Whittaker
Wetland Specialist

Enclosures

File: 3495.0010

Appendix A

APPENDIX A

PRELIMINARY PARTIAL PLANT SPECIES LIST
WETLAND DELINEATION

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

BOTANICAL NAME	COMMON NAME	INDICATOR STATUS	STRATUM
CUPRESSACEAE	**CYPRESS FAMILY**		
Juniperus scopulorum	Rocky Mountain Juniper	UPL	Tree
SALICACEAE	**WILLOW FAMILY**		
Salix exigua	Coyote Willow	OBL	Shrub
Salix lasiandra	Whiplash Willow	OBL	Shrub
Salix lutea	Yellow Willow	OBL	Shrub
CRUCIFERAE	**MUSTARD FAMILY**		
Rorippa nasturtium-aquaticum	Water-cress	OBL	Herb
Lepidium perfoliatum	Clasping Pepperweed	FACU-	Herb.
Thlaspi arvense	Field Pennycress	NI	Herb.
GROSSULARIACEAE	**CURRANT FAMILY**		
Ribes aureum	Golden Currant	FAC+	Shrub
Ribies sp.	Currant		Shrub
ROSACEAE	**ROSE FAMILY**		
Rosa woodsii	Wood's Rose	FACU	Shrub
POLYGONACEAE	**BUCKWHEAT FAMILY**		
Rumex acetosella	Sheep Sorrel	FACU	Herb.
Rumex crispus	Curly Dock	FACW	Herb.
LEGUMINOSAE	**PEA FAMILY**		
Medicago sativa	Alfalfa	UPL	Herb.
Melilotus alba	White Sweetclover	FACU	Herb.
Trifolium repens	White Clover	FACU+	Herb.

Sahko Hydroelectric Project
Partial Species List (cont.)

BOTANICAL NAME	COMMON NAME	INDICATOR STATUS	STRATUM
ELAEAGNACEAE	**OLEASTER FAMILY**		
Elaeagnus angustifolia	Russian Olive	FAC	Tree
LYTHRACEAE	**LOOSESTRIFE FAMILY**		
Lythrum salicaria	Purple Loosestrife	OBL	Herb.
SOLANACEAE	**POTATO FAMILY**		
Solanum dulcamara	Bittersweet Nightshade	FAC	Vine
SCROPHULARIACEAE	**FIGWORT FAMILY**		
Verbascum thapsus	Mullein	UPL	Herb.
COMPOSITAE	**ASTER FAMILY**		
Achillea millefolium	Yarrow	FACU	Herb.
Arnica sp.	Arnica		Herb.
Artemisia tridentata	Sagebrush	UPL	Herb.
Chrysothamnus nauseosus	Gray Rabbit-brush	UPL	Shrub
Chrysothamnus vicidiflorus	Green Rabbit-brush	UPL	Shrub
Taraxacum officinale	Common Dandelion	FACU+	Herb.
JUNCACEAE	**RUSH FAMILY**		
Juncus balticus	Baltic Rush	FACW	Herb.
Juncus torreyi	Torrey's Rush	FACW	Herb.
CYPERACEAE	**SEDGE FAMILY**		
Carex aquatilis	Water Sedge	OBL	Herb.
Carex athrostachya	Slenderbeaked Sedge	FACW	Herb.
Carex nebraskensis	Nebraska Sedge	OBL	Herb.
Eleocharis sp.	Spikerush	OBL	Herb.
Scirpus americanus	Olney Threesquare	OBL	Herb..

Sahko Hydroelectric Project
Partial Species List (cont.)

BOTANICAL NAME	COMMON NAME	INDICATOR STATUS	STRATUM
GRAMINEAE	**GRASS FAMILY**		
Agropyron repens	Quack Grass	FACU	Herb.
Agropyron smithii	Western Wheatgrass	FACU	Herb.
Bromus tectorum	Cheat Grass	UPL	Herb.
Hordeum jubatum	Foxtail Barley	FAC+	Herb.
Phleum pratense	Timothy	FACU	Herb.
Poa sandbergii	Sandberg Bluegrass	UPL	Herb.
Polypogon monspeliensis	Rabbitfoot Grass	FACW+	Herb.
SPARGANIACEAE	**BUR-REED FAMILY**		
Sparganium sp.	Bur-reed	OBL	Herb.
LEMNACEAE	**DUCKWEED**		
Lemna sp.	Duckweed	OBL	Submerg.

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Appendix B

DATA FORM I
WETLAND DELINEATION

Applicant Name: J.M. Miller Enterprises Application Number _____ Project Name Sahko Hydroelectric

State ID County Twin Falls Legal Description: Township 9 So. Range 15 E.

Date October 8, 1993 Plot No.: Sedge Plant Community Section: 13

Vegetation [List the three dominant species in each vegetation layer (5 if only 1 or two layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

Species	Indicator Status	Species	Indicator Status
Herb		Herb	
1. Carex nebraskensis	OBL	5. Juncus torreyi	FACW
2. Carex aquatilis	OBL	6. Scirpus americanus	OBL
3. Eleocharis sp.	OBL	7. Polypogon monspeliensis	FACW+
4. Juncus balticus	FACW		

% of species that OBL, FACW, and/or FAC: 90 percent. Other indicators _____. Hydrophytic vegetation

Soil

Series and phase: _____ On hydric soils list? Yes _____; No _____.

Mottled: Yes X; No ___. Mottle color: 7.5 YR 4/4; Matrix color: 7.5 YR 2/0.

Gleyed: Yes ___; No X. Other indicators: anaerobic decomposing soil conditions.

Hydric soils: Yes X; No _____; Basis: Saturated, organic soils support a predominance of hydrophytic vegetation.

Hydrology

Inundated: Yes X; No _____. Depth of standing water: 1-2 inches.

Saturated soils: Yes X; No _____. Depth to saturated soil: saturated at surface.

Other Indicators: water is supplied to the soils throughout most of the growing season.

Wetland hydrology: Yes X; No _____. Basis: saturated and inundated soils.

Atypical situation: Yes ___; No X.

Normal Circumstances? Yes X; No _____.

Wetland Determination: Wetland Yes; Nonwetland _____.

Comments: A substantial portion of the water flowing to the plant community which saturates the soils and supports hydrophytes is from irrigation return flows from adjacent agricultural lands.

Determined by: Christine Whittaker, Brian Liming.

DATA FORM I
WETLAND DELINEATION

Applicant Name: J.M. Miller Enterprises Application Number _____ Project Name Sahko Hydroelectric

State ID County Twin Falls Legal Description: Township 9 So. Range 15 E.

Date October 8, 1993 Plot No.: Springs Section: 13

Vegetation [List the three dominant species in each vegetation layer (5 if only 1 or two layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

Species	Indicator Status	Species	Indicator Status
Herb		Vine	
1. Rorippa nasturtium-aquaticum	OBL	5. Solanum dulcamara	FAC
2. Lemna sp.	OBL		
3. Lythrum salicaria	OBL		
4. Carex aquatilis	OBL		

% of species that OBL, FACW, and/or FAC: 95 percent. Other indicators _____. Hydrophytic vegetation

Soil

Series and phase: _____ On hydric soils list? Yes _____; No _____.

Mottled: Yes X; No ___. Mottle color: _____; Matrix color: _____.

Gleyed: Yes ___; No X. Other indicators: anaerobic decomposing soil conditions.

Hydric soils: Yes X; No _____; Basis: Saturated soils support a predominance of hydrophytic vegetation.

Hydrology

Inundated: Yes X; No _____. Depth of standing water: 3-4 inches.

Saturated soils: Yes X; No _____. Depth to saturated soil: saturated at surface.

Other Indicators: water is supplied to the soils throughout most of the growing season.

Wetland hydrology: Yes X; No _____. Basis: saturated and inundated soils.

Atypical situation: Yes ___; No X.

Normal Circumstances? Yes X; No _____.

Wetland Determination: Wetland Yes; Nonwetland _____.

Comments: A substantial portion of the water flowing to the plant community which saturates the soils and supports hydrophytes is from irrigation return flows from adjacent agricultural lands.

Determined by: Christine Whittaker, Brian Liming.

DATA FORM I
WETLAND DELINEATION

Applicant Name: J.M. Miller Enterprises Application Number_____ Project Name Sahko Hydroelectric

State ID County Twin Falls Legal Description: Township 9 So. Range 15 E.

Date October 8, 1993 Plot No.: Riparian Scrub Shrub Community Section: 13

Vegetation [List the three dominant species in each vegetation layer (5 if only 1 or two layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

Species	Indicator Status	Species	Indicator Status
Tree/Shrub		Herb	
1. Elaeagnus angustifolia	FAC	Carex nebraskensis	OBL
2. Salix exigua	OBL	Rorippa nasturtium-aquaticum	OBL
3. Salix lasiandra	OBL		
4. Rosa woodsi	FACU		
5. Ribes sp.	OBL		

% of species that OBL, FACW, and/or FAC: 75 percent. Other indicators_____. Hydrophytic vegetation

Soil

Series and phase:_____ On hydric soils list? Yes_____; No_____.

Mottled: Yes ___; No___. Mottle color:_____; Matrix color:_____.

Gleyed: Yes___; No X. Other indicators: saturated/ inundated soil conditions.

Hydric soils: Yes X; No_____; Basis: Saturated soils support a predominance of hydrophytic vegetation.

Hydrology

Inundated: Yes X; No_____. Depth of standing water: 3-4 inches.

Saturated soils: Yes X; No_____. Depth to saturated soil: saturated at surface.

Other Indicators: water is supplied to the soils within this plant community throughout most of the growing season from irrigation return flows within the Kastelu Drain.

Wetland hydrology: Yes X; No_____. Basis: saturated and inundated soils.

Atypical situation: Yes_____; No X.

Normal Circumstances? Yes X; No_____.

Wetland Determination: Wetland Yes_____; Nonwetland_____.

Comments: A substantial portion of the water flowing to the plant community which saturates the soils and supports hydrophytes is from irrigation return flows from adjacent agricultural lands.

Determined by: Christine Whittaker, Brian Liming.

DATA FORM I
WETLAND DELINEATION

Applicant Name: J.M. Miller Enterprises Application Number _____ Project Name Sahko Hydroelectric

State ID County Twin Falls Legal Description: Township 9 So. Range 15 E.

Date October 8, 1993 Plot No.: Mixed Upland Shrub/Rock Community Section: 13

Vegetation [List the three dominant species in each vegetation layer (5 if only 1 or two layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

Species	Indicator Status	Species	Indicator Status
Tree/Shrub		Herb	
1. Elaeagnus angustifolia	FAC	6. Verbascum thapsus	UPL
2. Artemisia tridentata	UPL	7. Bromus tectorum	UPL
3. Chrysothamnus nauseosus	OBL	8. Hordeum jubatum	FAC+
4. Chrysothamnus vicidiflorus	FACU	9. Agropopyron smithii	FACU
5. Juniperus scopulorum	UPL		

% of species that OBL, FACW, and/or FAC: 25 percent. Other indicators This community does not satisfy the Federal criteria for hydrophytic vegetation because 50% or more of the vegetation is not OBL, FACW or FAC.

Soil

Series and phase: _____ On hydric soils list? Yes _____; No _____.

Mottled: Yes ___; No X. Mottle color: _____; Matrix color: _____.

Gleyed: Yes ___; No X. Other indicators: non-saturated soils.

Hydric soils: Yes ___; No X; Basis: Non-saturated soils support a predominance of upland vegetation.

Hydrology

Inundated: Yes ___; No X. Depth of standing water: no standing water at 18".

Saturated soils: Yes ___; No X. Depth to saturated soil: _____.

Other Indicators: this plant community dominates the arid sloping topography above the elevation of the adjacent wetland communities and is supported by precipitation.

Wetland hydrology: Yes ___; No X. Basis: soils are not saturated or inundated.

Atypical situation: Yes ___; No X.

Normal Circumstances? Yes X; No _____.

Wetland Determination: Wetland _____; Nonwetland Yes _____.

Comments:

Determined by: Christine Whittaker, Brian Liming.

APPENDIX 4

Archaeological and Historic Survey Report

ARCHAEOLOGICAL AND HISTORIC SURVEY REPORT IDAHO ARCHAEOLOGICAL SURVEY

A Cultural Resource Survey of the Sahko Hydroelectric Project, FERC #11060, Twin Falls County, Idaho

By James C. and Cynthia L. Woods

prepared for J.M. Miller Enterprises, Inc.
at the request of J.U.B. Engineers,
Twin Falls, Idaho

August 1993

ARCHAEOLOGICAL AND HISTORIC SURVEY REPORT
IDAHO ARCHAEOLOGICAL SURVEY

A. Project Name and Statement of Objectives:

This report summarizes the results of a cultural resource survey conducted on private property owned by J.M. Miller Enterprises, Inc. The survey was conducted at the request of J.U.B. Engineers, Twin Falls, Idaho. The survey was designed to provide an intensive pedestrian inspection of properties associated with the "Sahko Hydroelectric Project - FERC #11060". This survey investigated all property within a project boundary established by J.U.B. The purpose was to identify any prehistoric or historic artifacts, features, or sites within the project area.

B. Name and Full Description of the Proposed Undertaking: (Key to map, be specific and describe all anticipated direct and indirect impacts)

The "Sahko Hydroelectric Project - FERC #11060" will divert irrigation waters currently being emptied into the Snake River Canyon through the Kastelu Drain to a small power plant at the north end of the project area. The project proposes to construct a small hydroelectric generator and associated waterworks that will involve about 800 meters of the drainage. A detailed description of the construction activities is attached (Addendum 2).

In addition to construction along the waterway, the project will also utilize existing access roadways, though some improvement and road repair may be necessary along certain lengths of the road.

C. Location and General Environmental Setting: (Key to map)

This project area is located on the south rim of the Snake River Canyon, approximately one mile west of Cedar Draw which is located northwest of Filer, Idaho. The project area encompasses both sides of Kastelu Drain, a small natural drainage fed by irrigation and natural percipitation runoff (Figures 1 and 2). The areas to the west and south of the project are agricultural, immediately to the east is a residential lot and structure. Most of the project area lies within the Kastelu Drain. The terrain is steep and is covered with by massive basalt talus slopes. Some shallow rimrock overhangs are on the west side of the Drain and a pronounced projection rimrock "finger" is the dominant landform on the east side of the project area (Figure 3).

Runoff descends rapidly down the Drain and cascades over a scenic waterfall just below the canyon rim. The project area encompasses the upper rim of the canyon, talus slopes, and some portions of the canyon floor on the south bank of the Snake River. The flat area on the canyon floor is covered with large boulders which have tumbled from the rimrock above.

Township, Range, Section: USGS Topographic Map(s):

The project is located in the NE¼ of Section 13, and SW¼ of Section 18 of T9S R15E of the Niagara Springs 7.5' U.S.G.S. Quadrangle Map.

D. Pre-Field Research

1. Sources of information checked:

[x] Overview
[ ] Site sensitivity maps
[ ] Site location directory
[ ] National Register
[ ] Other (list)

2. Summary of previous studies in this general area: (Include titles):

A thorough literature search for this immediate area was not conducted as part of this survey. However, at least one prehistoric site has been recently reported at the Crystal Springs Fish Hatchery. The report on this site is not very detailed as it concerned an emergency salvage following major construction activities at the hatchery. Nonetheless, important prehistoric artifacts were recovered from the salvage including one complete Clovis point, several large Clovis-style percussion blades, as well as numerous more recent prehistoric artifacts.

Murphey, Kelly A.
1985 Early Man at Crystal Springs. Paper presented to the 12th Annual Meeting of the Idaho Archaeological Society, Boise, Idaho.

E. Expected Historic and Prehistoric Land Use and Site Sensitivity

1. Are there sites known in this area? [x]Yes [ ]No

2. Are sites expected? [x]Yes (Where?, What kinds?)

As mentioned above, at least one prehistoric site is known near the project area. In addition, drainages such as Kastelu Drain are known to have been favored micro-environments for prehistoric and historic sites. It is likely that a prehistoric site might be located on the large terrace near the confluence of the Kastelu Drain and the Snake River, though this is not directly within the project area of impact.

Topographic "fingers" such as the one in the center of the project area (Figure 3) are also known to commonly contain rimrock structures such as prehistoric hunting blinds or drive lanes constructed of boulders. Several small rimrock ledges and overhangs are on the west side of the project area. These small protected areas with east exposures are known to have been favored habitation sites for ancient peoples (Figure 4). Finally, historic agricultural use in the area is well-documented and the presence of early historic structures or features would be anticipated anywhere within the project area.

F. Field Methods (Be specific and complete)

1. Areas examined and type of coverage: (Key to map, SURVEY ROUTE MUST BE INDICATED)

The entire project area was surveyed using standard pedestrian transects spaced 30 meters apart. In areas of poor visibility or high site potential, additional transects were walked. For example, extra time was spent inspecting the rimrock projection on the east side of Kastelu Drain and the rimrock areas on the west face of Kastelu Drain. All transects were oriented longitudinally to the Kastelu Drain with the fall-line of the creek serving as the survey datum.

2. Surface and subsurface visibility (percentage of land obscured by vegetation, snow, etc.):

Surface visibility within the project area was excellent. Ground cover was sparse.

3. Acres surveyed: Intensive about 25 acres

4. Areas not examined and reasons why: (Key to map)

All of the project area were surveyed at the intensive level.

5. Personnel conducting or assisting in the survey:

This survey was conducted by James C. and Cynthia L. Woods.

6. Dates of survey:

This survey was conducted on August 15 (4 hrs x 2), August 19 (1.5 hrs. x 1), and August 21 (2 hrs x 2). A total of 13.5 hours were required to conduct the field inspection.

7. Problems encountered:

No problems were encountered.

G. Results

1. All cultural resources recorded for this area: (Key to map)

One medium-sized historic dump and an isolated prehistoric projectile point fragment were located during this survey. IMACS and Idaho Isolated Find Report forms are attached (Addendum 4).

SITE #	SITE TYPE	SITE DESCRIPTION
FS-1	Historic Garbage Dump	Medium-Sized historic trash dump consisting of numerous cans, bottles, wire, nails, pieces of equipment, toys, etc. Site is located partially on top of the south side of the Snake River Canyon and is also extended down the talus slope onto the canyon floor below.
IF-1	Projectile Mid-Section	An isolated find consisting of the mid-section of a large, lanceolate point or knife blade made of an opaque, black obsidian (Ignimbrite).

2. **Cultural resources noted but not formally recorded: [x]None**

H. Conclusions and Recommendations:
(Possible impacts, relation of sites to impacts, avoidance options, additional work needed)

IF-1 will not be affected by project activities as it is located in a relatively well-protected topographic setting. FS-1 is located primarily to the east of the area of impact for the project. However, one small portion of the site extends down into Kastelu Draw to the southwest where a few larger pieces of historic refuse can be found extending to the west of an existing access roadway through the project area. It appears as though the existing roadway was constructed after the dump was abandoned (Figures 5 and 6), and this roadway just misses the westernmost border of the site (excluding the small portion of the site that extends southwest). No historic artifacts were noted in the roadway itself, and very few were noted within the first 2 - 4 meters of the existing road edge. It is our opinion that any impact to this site can be avoided if the existing roadway is not altered in the immediate vicinity of FS1.

I. Attachments

1. **IMACS site form attached for each site? [x]Yes**

2. **Maps attached? [x]Yes**

3. **Other attachments? (List) [x]Yes**

Addendum 1) Photographs of the Sahko project area.
Addendum 2) Description and maps (draft form) of the Sahko project prepared by J.U.B. Engineers, Twin Falls.
Addendum 3) Copies of Correspondence from SHPO.
Addendum 4) Documentation for FS-1 and IF-1.

J. Repository: (Where original survey records and attendant data will be located)

This report is being submitted to the State Historic Preservation Office, Boise. Copies are being provided to J.M. Miller Enterprises, Inc., J.U.B. Engineers, and the Herrett Museum library.

K. Certification of Results

I certify that I conducted the investigation reported here, that my observations and methods are fully documented, and that this report is complete and accurate to the best of my knowledge.

James C Woods — 8-25-93

Signature of Reporter **Date**

Addendum 1) Photos of the Sahko Project area.

Figure 1) Southern end of the Sahko Hydroelectric project area.

Figure 2) Northern end of the project area, view looking north into the Snake River Canyon. Kastelu Drain marked by green vegetation across the lower portion of the photo.

Figure 3) View looking east toward the rimrock "finger" that projects north from the project area. Waterfall visible in the lower center of the photo. Existing roadway cuts across just below the rimrock.

Figure 4) Small rimrock overhangs on the west side of Kastelu Drain. Areas with a high potential for the presence of prehistoric sites were given careful scrutiny during this survey.

Figure 5) Existing roadway through the project area. Photo looking west from FS-1.

Figure 6) Existing roadway through the project area. Photo looking east from same area as Figure 2.



Figure 1



Figure 2

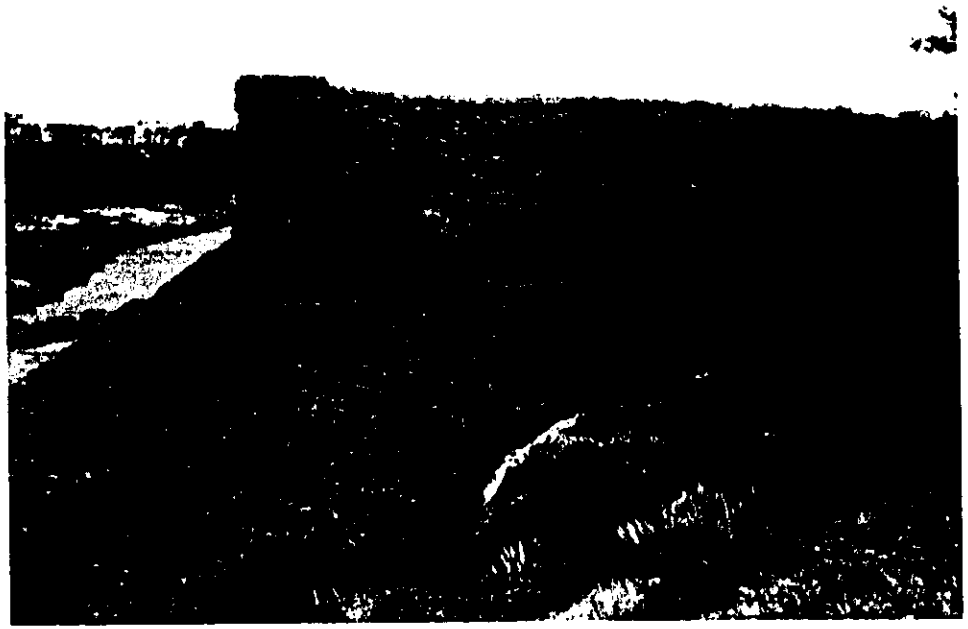


Figure 3



Figure 4



Figure 5

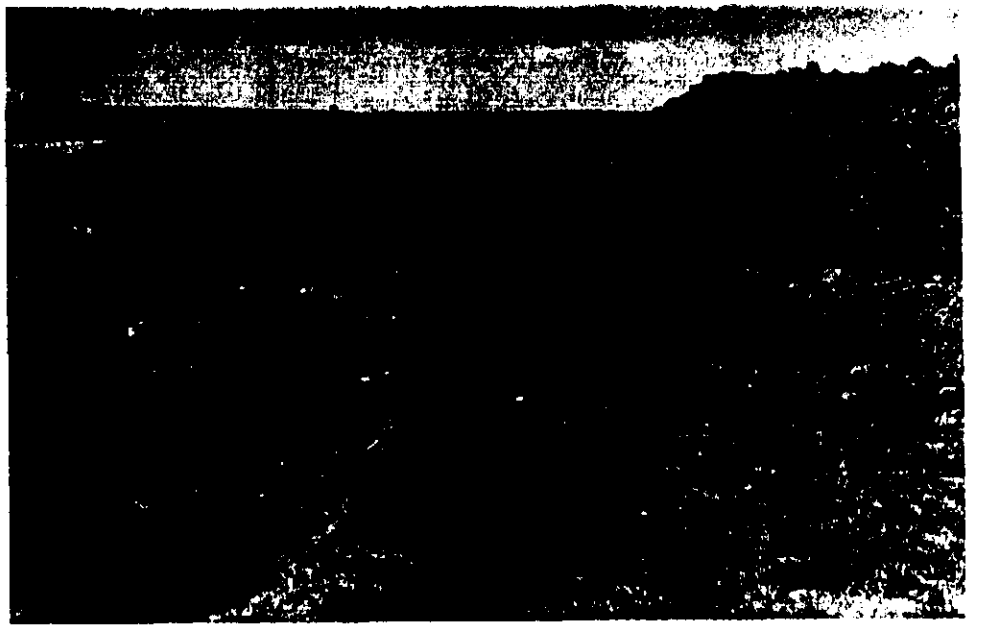


Figure 6

Addendum 2) Description and maps (draft form) of the Sahko project prepared by J.U.B. Engineers, Twin Falls.

4.61(d)

EXHIBIT E

ENVIRONMENTAL REPORT

OVERVIEW

The proposed Sahko hydroelectric project will develop the energy potential of irrigation return flows at the so-called Kastelu drain, located approximately three miles northwest of Filer, in Twin Falls County, Idaho. The property within the project boundary is privately-owned, undeveloped and is currently used for cattle-grazing.

The project reach is generally characterized as a draw which directs precipitation and irrigation return flows to the Snake River canyon's south rim. Flows then fall through a steep ravine, which transitions to a relatively flat area prior to the drain's confluence with the Snake River, approximately 0.5 miles beyond the project boundary.

It is proposed to construct an earth-fill embankment at ditch invert elevation 3381 ft. mean sea level (msl). Crest height will be at 3394.5 ft. msl, and the embankment's length along the crest axis will be 110 ft. Upstream and downstream slopes are designed at 3:1 (run:rise) and 2:1, respectively.

The embankment will incorporate a concrete penstock intake structure near its center. The intake structure's floor will be at elevation 3384 ft. msl; and, the box-shaped structure will measure 8.0 ft. wide (along the embankment's axis), 10.0 ft. into the embankment,10.5 ft. deep, and will incorporate protective trash racks.

The embankment will also incorporate a concrete overflow-spillway channel which will direct flows to a riprapped surface at the embankment's downstream toe, and into the ditch channel.

A second earth-fill embankment will be constructed upstream of the above-referenced embankment. This structure, however, will be installed for the purpose of collecting water-borne sediment from agricultural land upstream of the project. The embankment will be constructed from ditch invert elevation 3387.5 msl, and have a crest height to elevation 3397 msl. Crest width will be 12 ft. and embankment length along its axis will be 80 ft. Upstream and downstream slopes are designed at 3:1 (run:rise) and 2:1, respectively. Upstream and downstream slopes subject to water action will be protected with rip rap over a fabric liner.

The upstream embankment will incorporate a four-foot high, 14-foot wide concrete-capped spillway allowing passage of power flows to the downstream forebay. A check-weir will be installed in the spillway for flow measurement. The spillway's downstream face will be riprapped.

A bypass pipe will be buried through the embankment in order to allow maximum de-watering behind the structure for sediment removal.

In order to prevent irrigation flows or natural run-off from entering the upstream basin during the sediment removal process (see Exhibit E), a ditch approximately two ft. wide, 1.5 ft. deep and 500 ft. in length will parallel the basin to carry flows to the downstream forebay. The bypass ditch, with an entrance invert at 3393 ft. msl, will be gated to divert flows into the basin during normal operations. During sediment removal, the gate will be opened and, by virtue of its lower elevation, will convey flows past the basin to the downstream forebay.

From the downstream embankment impounding the forebay, a single, steel, 24 in. diameter pipe will be buried approximately 700 ft. to its intersection with an existing road accessing the canyon bottom. The penstock will under-cross the road and be buried along the descending road's right side for a distance of approximately 610 ft.. At a bend in the road, the pipe will then under-cross the road again and exit at a point where pipe alignment will represent the shortest run down the slope. From this point, the pipe will be buried an additional 640 ft. to the proposed powerhouse location.

The power plant will include a masonry-block structure, approximately 25 ft. x 50 ft., to house the turbine-generator, controls and appurtenances, and provide room for maintenance and repairs.

A concrete pad for the transformer will be constructed adjacent to the powerhouse.

A tailrace channel approximately 6 ft. wide, 3 ft. deep and 30 ft. in length will be excavated from the powerhouse in order to return spent power flows to the irrigation drain. The entire length of the tailrace will be lined with rip rap to its juncture with the existing ditch.

A new section of overhead three-phase distribution lines will be brought to the site by the Idaho Power Company and will extend approximately 2,000 ft. within the project boundary from the power plant to the interconnect point. Any other improvements to Idaho Power Company's existing lines are outside the project boundary.

4.61(d)(2)(i)

DESCRIPTION OF ENVIRONMENTAL SETTING

VEGETATIVE COVER

The proposed project is located in a semi-arid area which receives ten to twelve inches of precipitation annually. Vegetation types have been mapped, and are identified in the following Figure E-1. Natural vegetation in the upper reach is primarily sagebrush, cheatgrass, wheat grass, and other semi-arid species. The flat area through which the ditch extends is heavily grazed and is largely void of vegetation other than short-cropped grasses. Although the general area is void of trees, the upper reach contains approximately one dozen Russian olive trees and an apple tree.

No permanently established wetlands vegetation occurs in the upper reach, as the area is heavily grazed by livestock.

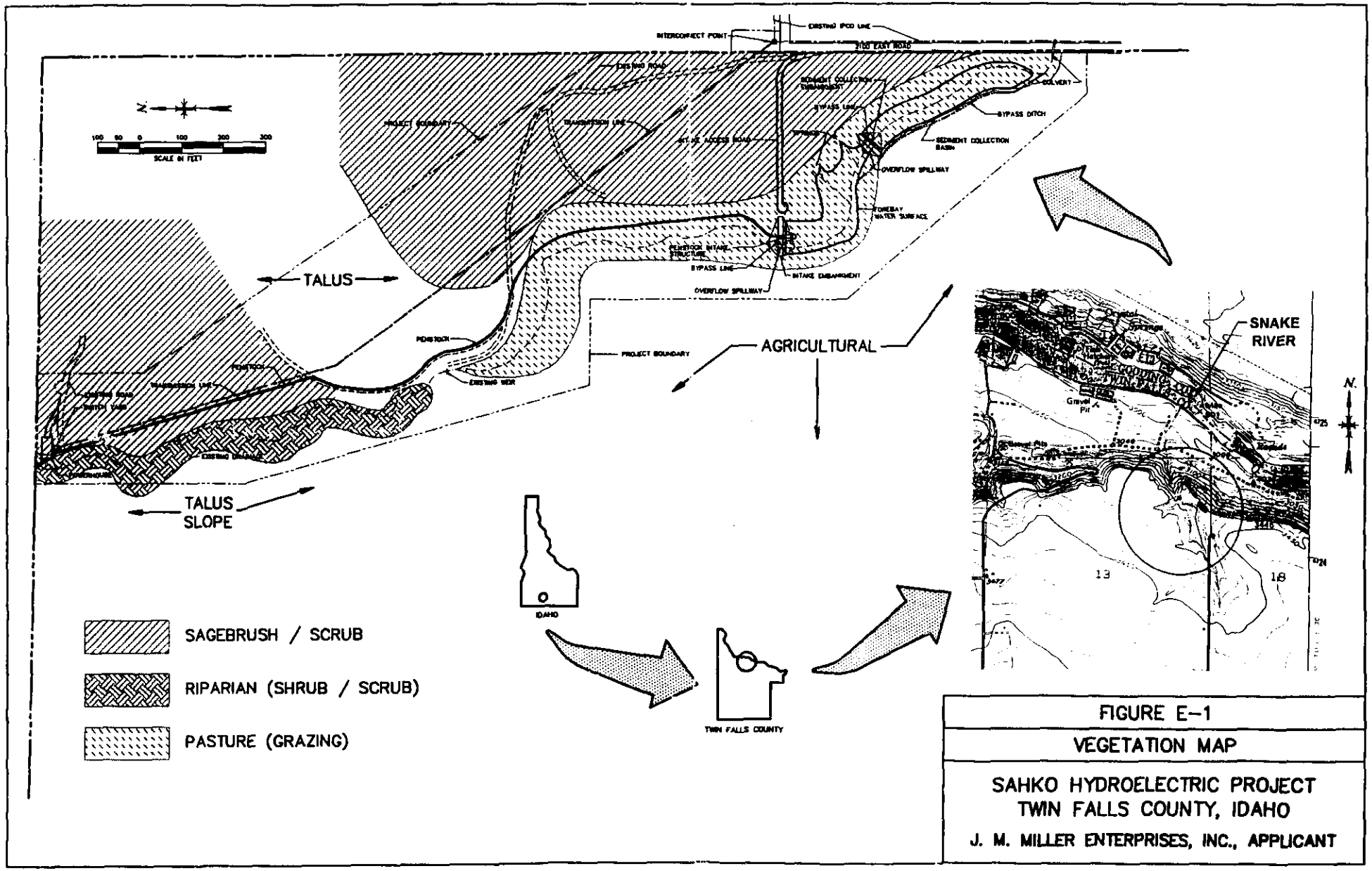
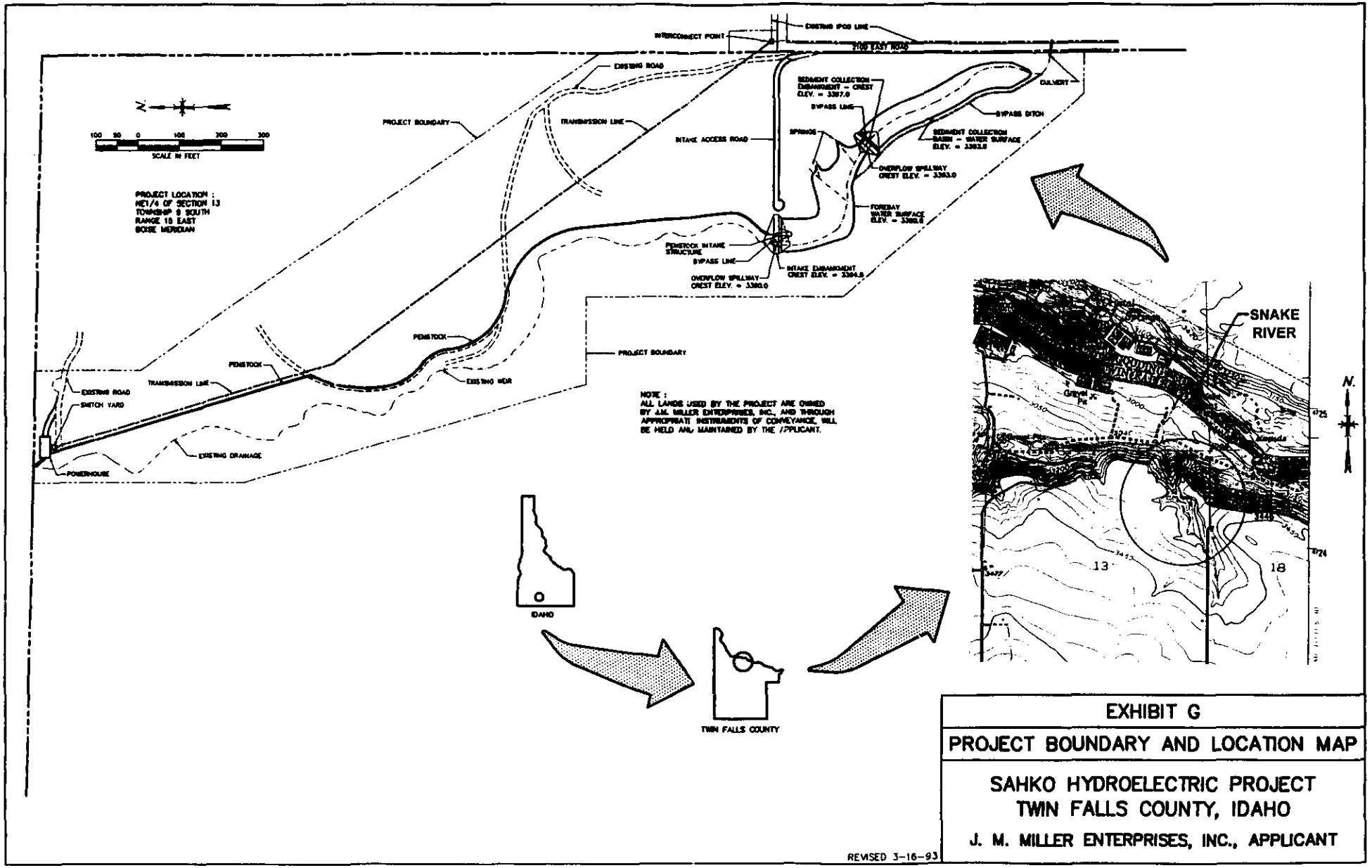


FIGURE E–1

VEGETATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT



REVISED 3-16-93

EXHIBIT G

PROJECT BOUNDARY AND LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

Addendum 3) Copies of Correspondence from SHPO.

IDAHO STATE HISTORICAL SOCIETY

CECIL D. ANDRUS, Governor

Director
210 Main St.
Boise, Idaho 83702
208-334-2682

Archaeology
210 Main St.
Boise, Idaho 83702
208-334-3847

Education
610 N. Julia Davis Dr.
Boise, Idaho 83702
208-334-2120

Genealogical Library
450 N. 4th St.
Boise, Idaho 83702
208-334-2305

Historic Preservation
210 Main St.
Boise, Idaho 83702
208-334-3847, 3861

Library and Archives
450 N. 4th St.
Boise, Idaho 83702
208-334-3356

Museum
610 N. Julia Davis Dr.
Boise, Idaho 83702
208-334-2120

Old Idaho Penitentiary
2445 Old Penitentiary Rd.
Boise, Idaho 83712
208-334-2844

Oral History
210 Main St.
Boise, Idaho 83702
208-334-3863

Publications
450 N. 4th St.
Boise, Idaho 83702
208-334-3428

J-U-B Engineers
RECEIVED
JUL 1993
TWIN FALLS, IDAHO

June 23, 1993

Mr. Bill Block
JUB Engineers
800 Falls Avenue
Twin Falls, Idaho 83301

RE: Sahko Hydroelectric Project - FERC #11060

Dear Mr. Block:

Thank you for forwarding the Application for License for the Sahko Hydroelectric Project (FERC #11060). After reviewing the document, we suggest a revision to the section on Historic, Archaeological and Cultural Resources (page E-16). The first paragraph states that "no resources of cultural or historic import are known to exist in the project area." It should be clarified, however, that the area has never been inspected for sites in the past.

Lacking survey information on the location, we continue to recommend that the project area be inspected for historic properties (36 CFR 800.4). Without an inspection, we cannot determine whether or not cultural resources exist within the project area. Depending upon the results of the investigations, we may recommend avoidance, archaeological testing, or monitoring of construction activities.

These recommendations are consistent with our comments of November 18, 1992 and with your summary of our consultation in the application on page E-21. If you have any questions, feel free to contact either myself or Suzi Neitzel at 208-334-3847.

Sincerely,

Robert M. Yohe II
Deputy State Historic
Preservation Officer

RMY/spn
cc: Ron Corbyn, NPS

The Idaho State Historical Society is an Equal Opportunity Employ...

IDAHO STATE HISTORICAL SOCIETY

CECIL D. ANDRUS, Governor

Director
210 Main St.
Boise, Idaho 83702
208-334-2682

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Boise, Idaho 83702
208-334-3356

Museum
610 N. Julia Davis Dr.
Boise, Idaho 83702
208-334-2120

Old Idaho Penitentiary
2445 Old Penitentiary Rd.
Boise, Idaho 83712
208-334-2844

Oral History
210 Main St.
Boise, Idaho 83702
208-334-3863

Publications
450 N. 4th St.
Boise, Idaho 83702
208-334-3428

November 18, 1992

J-U-B Engineers
RECEIVED
NOV 20 1992
TWIN FALLS, IDAHO

Mr. D.W. Bill Block
JUB Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, Idaho 83301

RE: Proposed Sahko Hydroelectric Project
Twin Falls County

Dear Mr. Block:

Thank you for providing our office with information on the proposed Sahko Hydroelectric Project located in Sections 12 and 13, T9S, R15E, near the Snake River in Twin Falls County, Idaho. The project will involve the construction an earth-fill embankment and pond area, powerhouse, and transformer pad, and the installation of 1,600 feet of penstock.

After reviewing our records, we recommend that a professional archaeologist inspect the project area for archaeological sites, prior to any ground-disturbing activities. The report documenting the investigations should be forwarded to our office for review.

We appreciate your cooperation. If you have any questions, feel free to contact Suzi Neitzel at 208-334-3847.

Sincerely,

Kenneth J. Swanson
State Historic
Preservation Office

KJS/spn
cc: Ron Corbyn, NPS

Addendum 4) Documentation for FS-1 and IF-1.

IMACS SITE FORM

Part A - Administrative Data

INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

*1. State No. _____

*2. Agency No. NA

3. Temp No. FS-1

4. State Idaho County Twin Falls

5. Project Sahko Hydroelectric Project - FERC #11060.

*6. Report No. NA

7. Site Name Unnamed

8. Class [ ] Prehistoric [x] Historic [ ] Paleontologic [ ] Ethnographic

9. Site Type Historic Garbage Dump

*10. Elevation 3470 ft.

*11. UTM Grid Zone 11 694000 m E 4724350 m N

*12. SE¼ of SE¼ of NE¼ of NE¼ Section 13 T. 9S R. 15E

*13. Meridian Boise

*14. Map Reference Niagara Springs, Idaho 7.5' U.S.G.S. Quadrangle

15. Aerial Photo No

16. Location and Access From intersection of US 93 and Pole Line Road (north edge of Twin Falls City limits at Costco corner) take Pole Line Road 9 miles to the west, turn north 3.7 miles to end of gravel roadway to project area which is located in a shallow ravine on the west side of the road. The site is located on the rim of the Snake River Canyon. It starts on the section line dividing Sections 13 and 18 and spreads along the rim to the west as well as downhill to the north. A small portion of the site is also located to the west, down a shallow ravine.

*17. Land Owner J. M. Miller Enterprises, Inc.

*18. Federal Admin. Units Forest NA District NA

*19. Planning Units (USFS only) NA

20. Site Description The site is a large historic dump that probably functioned as the dumpsite for residents of the rural Filer area. It is primarily located on the rim of the Snake River Canyon, though some material is also scattered down the talus slope to the north, with some reaching as far as the canyon floor, 400 feet below. Most of the material remaining on the rim is crushed and it appears as if much of it was pushed over the rim with heavy equipment. Materials which are located over the rim on the talus slope are in moderate to good condition as determined by the presence of many intact bottles. The site appears to have been last used within the past few years though without further study, it is not possible to determine a first-use date because of the volume of material covering any earlier deposits.

*21. Site Condition [ ] Excellent(A) [ ] Good(B) [x] Fair(C) [ ] Poor(D)

*22. Impact Agent(s) Collecting, intentional displacement of trash piles over canyon rim using heavy equipment.

*23. Nat. Register Status
[ ] Significant(C) [ ] Non-Significant(D) [ ] Unevaluated(USFS)(Z)
Justify _____

24. Photos Attached

25. Recorded by James and Cynthia Woods

*26. Survey Organization Independent Contractors Survey Date 8-21-93

27. Assisting Crew Members NA

* Encoded data items

Part A - Environmental Data Site No.(s) FS-1

*29. Slope 0-30 % Slope 0 Aspect (Degrees)

*30. Direction/Distance to Permanent Water
260 Bearing (Degrees) 1.2 x 100 Meters
*Type of Water Source [ ] Spring/Seep(A) [x] Stream/River(B)
[ ] Lake(C) [ ] Other(D)
Name of Water Source Kastelu Drain
Distance to Nearest Other Water Source/Type 500 meters/Snake River

*31. Geographic Unit Snake River Plain

*32. Topographic Location (check one under each heading)

PRIMARY LANDFORM	PRIMARY POSITION
[ ]mountain spine(A)	[x]top/crest/peak(A)
[ ]hill(B)	[ ]edge(B)
[ ]tableland/mesa(C)	[ ]slope(C)
[ ]ridge(D)	[ ]toe/foot/bottom/mouth(D)
[ ]valley(E)	[ ]saddle/pass(E)
[ ]plain(F)	[ ]bench/ledge(F)
[x]canyon(G)	[ ]rimrock(G)
	[ ]interior(H)

SECONDARY LANDFORM			SECONDARY POSITION
[ ]alluvial fan(A)	[ ]playa(M)		[ ]top/crest/peak(A)
[ ]alcove/rockshelter(B)	[ ]port.geo.feat.(N)		[ ]edge(B)
[ ]arroyo(C)	[ ]plain(O)		[ ]slope(C)
[ ]basin(D)	[ ]ridge/knoll(P)		[ ]toe/foot/bottom(D)
[ ]cave(E)	[ ]slope(Q)		[x]interior(G)
[ ]cliff(F)	[ ]terrace/bench(R)		[ ]step(H)
[ ]delta(G)	[ ]talus slope(S)		[ ]riser(I)
[ ]detached monolith(H)	[ ]island(T)		[ ]patterned ground(N)
[ ]dune(I)	[ ]outcrop(U)		[ ]face(Q)
[ ]floodplain(J)	[ ]spring mound/bog(V)		[ ]saddle/pass(P)
[ ]ledge(K)	[x]valley(W)		
[ ]mesa/butte(L)	[ ]cutbank(X)		
	[ ]riser(Y)		

Describe Site is located on the south rim of the Snake River Canyon just east of Kastelu Drain which empties irrigation run-off into the Snake River.

*33. On-site Depositional Context

[ ]fan(A)	[ ]alluvian plain(H)	[ ]desert pavement(P)
[ ]talus(B)	[ ]colluvium(I)	[ ]outcrop(Q)
[ ]dune(C)	[ ]moraine(J)	[ ]stream bed (R)
[ ]stream terrace(D)	[ ]flood plain(K)	[ ]aeolian(S)
[ ]playa(E)	[ ]marsh(L)	[x]none(T)
[ ]extinct lake(F)	[ ]landslide/slump(M)	[ ]residual(U)
[ ]extant lake(G)	[ ]delta(N)	

34. Vegetation

*a. Life Zone
[ ]Arctic-Alpine(A) [ ]Hudsonian(B) [ ]Canadian(C)
[ ]Transitional(D) [x]Upper Sonoran(E) [ ]Lower Sonoran(F)

*b. Habitat 1-Primary On-Site 2-Secondary On-Site 3-Surrounding Site

[ ]Aspen(A)	[ ]Shrub Woodland(K)
[ ]Spruce-Fir Forest(B)	[ ]Riparian(L)
[ ]Douglas Fir Forest(C)	[ ]Grassland/Steppe(M)
[ ]Alpine Grassland(D)	[ ]Desert Lake Shore(N)

[ ]Ponderosa Forest(E)
[ ]Lodgepole Pine Forest(F)
[ ]Other/Mixed Conifer Forest(G)
[ ]Pinyon-Juniper Woodland(H)
[ ]Wet Meadow(I)
[ ]Dry Meadow(J)
[ ]Salt Desert Shrub(O)
[x]Big Sagebrush(P)
[x]Little Sagebrush(Q)
[ ]Barren(R)
[ ]Marsh/Swamp(S)
[ ]Lake-Reservoir(T)
[x]Agricultural(U)

Describe Sagebrush (large and small species) and cheatgrass dominate.

*35. Miscellaneous Text NA

36. Comments/Continuations
NA

Form must be accompanied by a site map, photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

Part C - Historic Sites

Site No.(s) FS-1

1. Site Type Historic Garbage Dump
*2. Historic Theme(s) Refuse Disposal, Agricultural, Rural

*3. Culture	AFFILIATION	DATING	AFFILIATION	DATING
	NA			

*4. Oldest Date NA Recent Date Recent
5. How Determined? Presence of aluminum beverage cans.
Site Dimensions 300 m X 170 m *Area ca. 22,500 sqm
*6. Surface Collection/Method [x]None(A) [ ]Designated Sample(C) [ ]Grab Sample(B) [ ]Complete Collection(D)
Sampling Method Unsampled

*7. Estimated Depth of Fill [x]Surface(A) [ ]0-20 cm(B) [ ]20-100(C) [ ]100 cm+(D) [ ]Fill noted but unknown(E)
How estimated Recent nature of artifacts, no visible overlay.
(If tested, show location on site map.)

*8. Excavation Status [ ]Excavated(A) [ ]Tested(B) [x]Unexcavated(C)

*9. Summary of Artifacts and Debris

[x]Glass(GL)	[x]Bone(BO)	[x]Leather(LE)	[x]Ammunition(AM)
[x]Metal(ME)	[x]Ceramics(CS)	[x]Wire(WI)	[x]Wood(WD)
[x]Nails(NC,NW)	[x]Fabric(FA)	[x]Tin Cans	[x]Rubber(RB)

Describe This is a medium-sized rural trash dump that contains a diversity of artifact types and materials. The largest volume of material appears to be agriculture-related including wire, large metal cans, nails, and pieces of farm equipment. Domestic refuse is also present in the form of smaller metal cans, bottles, household appliances, clothing, and fragments of toys.

*10. Ceramic Artifacts

QUANTITY	TYPE	QUANTITY	TYPE
Unknown	See below		

Describe There are too many ceramic fragments to provide an accurate numerical estimate. Most appear to be kitchen serving dishes in yellow, orange, red, and white. Several large pieces of salt-glazed ceramic drain tile were noted. Several piles of badly exfoliated tan and orange building brick are present.

Part C - Historic Sites

Site No.(s) FS-1

*11. Glass

QUANTITY	MANUFACTURE	COLOR	FUNCTION
	See below		

Describe The quantity of glass items is in the many thousands. Many glass items which were thrown or pushed over the canyon rim are still in good condition, though collecting activity has occurred and some complete bottles are arranged in piles near the rim. Most glass is clear, though green and brown glass is common. The only interesting note concerning glass is the extremely low percentage of beer or alcohol bottles.

12. Maximum Density - #/sq m (glass and ceramics) Estimate 100/sq m

*13. Non-Architectural Features (locate on site map)

[x]Trail/Road(TR) [x]Dump(DU) [ ]Dam,Earthen(DA)
[ ]Hearth/Campfire(HE) [ ]Tailings(MT,ML) [ ]Depression(DE)
[ ]Ditch(DI) [ ]Quarry(QU) [ ]Rock Alignment(RA)
[ ]Cemetery/Burial(CB) [ ]Inscriptions(IN) [ ]Other(OT)

Describe There is a roadway on the south and west margin of the site that provides access down the Kastelu Drain and into the Snake River Canyon. This road is probably not associated with the trash dump.

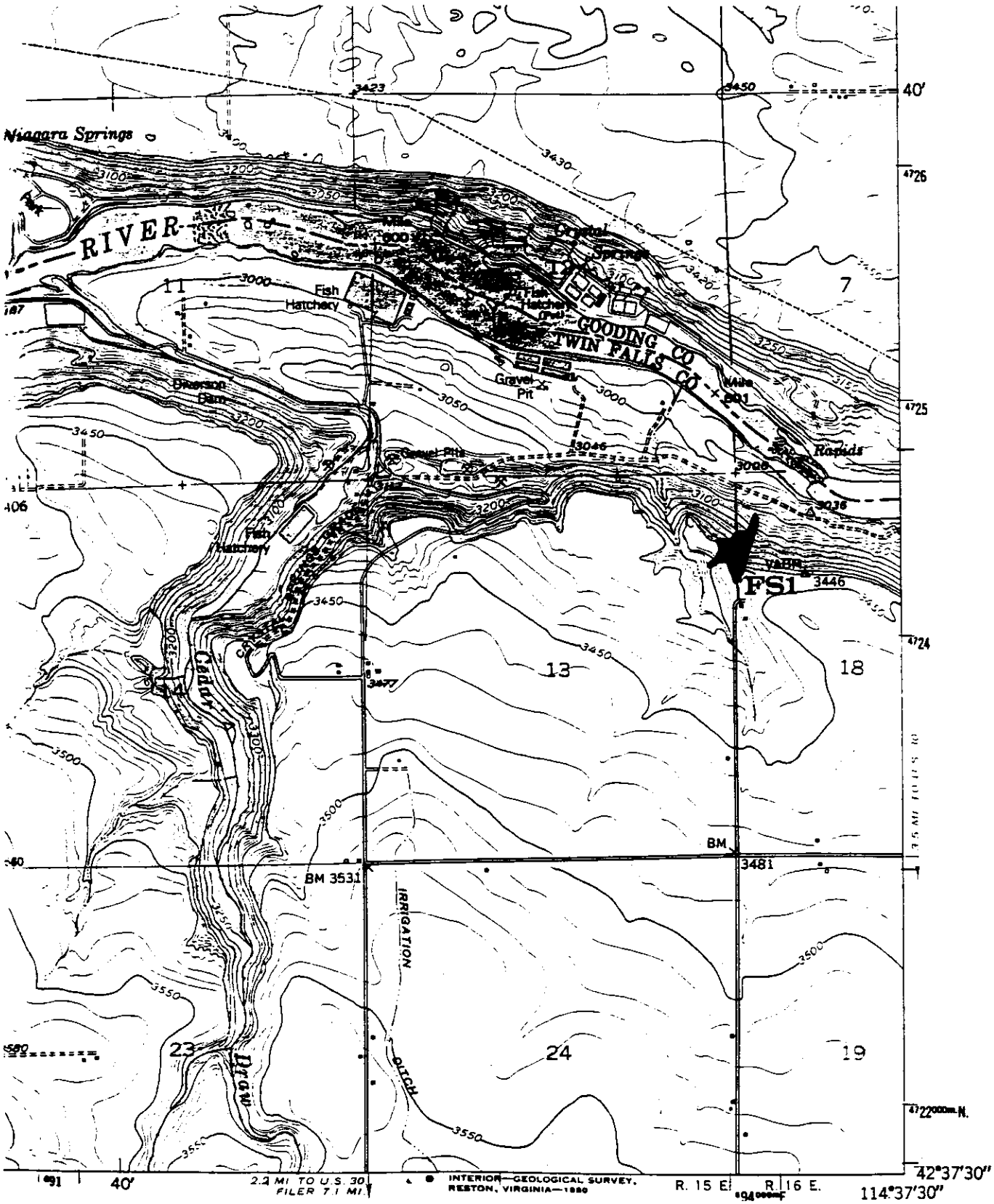
*14. Architectural Features (locate on site map)

QUANTITY	MATERIAL	TYPE	QUANTITY	MATERIAL	TYPE
NA					

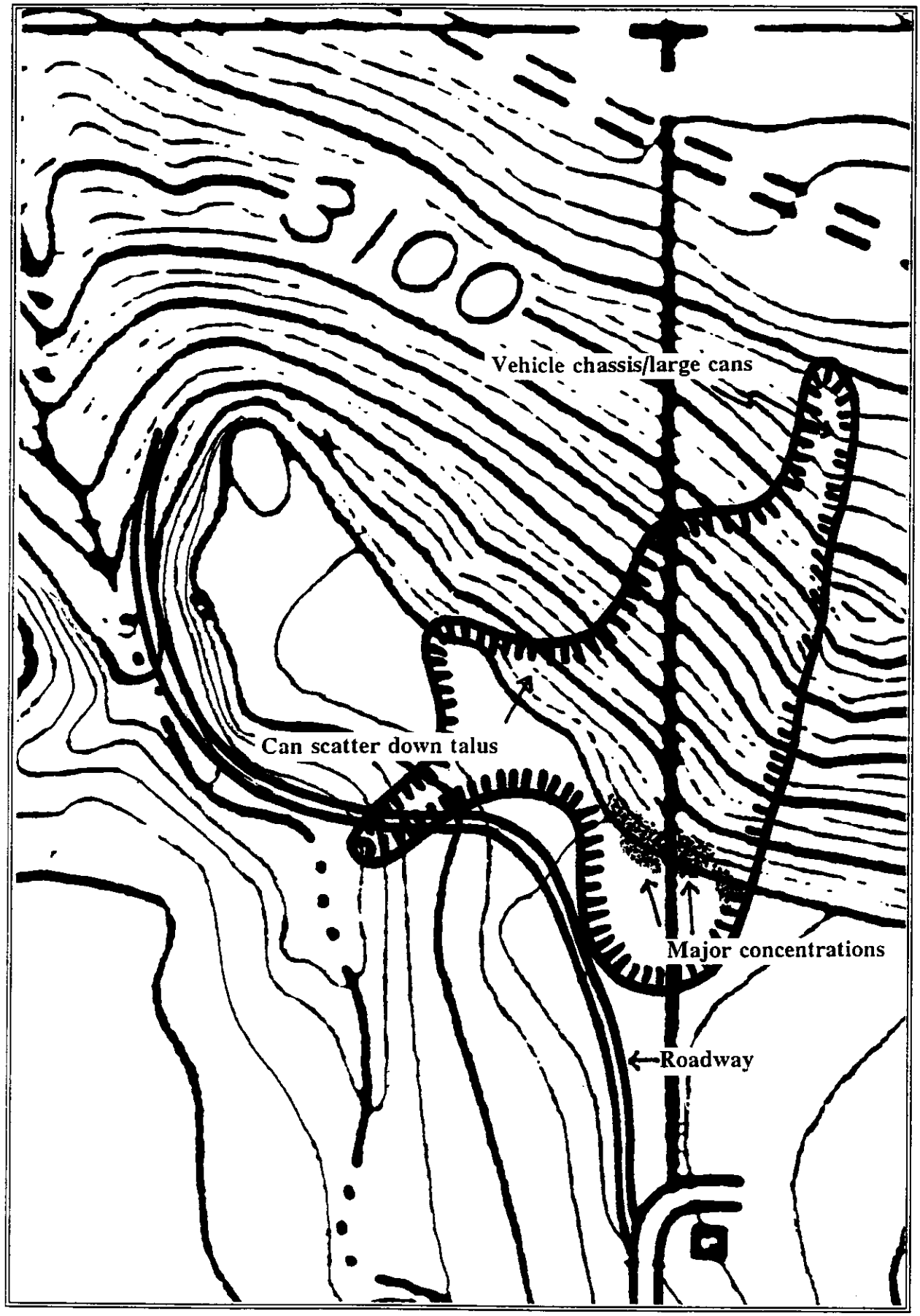
Describe No architectural features are present.

15. Comments/Continuations

NA



Map 1. Detail of U.S.G.S. "Niagara Springs" 7.5' map showing location of FS-1, a historic trash dump.



Map 2. Sketch map of FS-1.



Figure 7



Figure 8

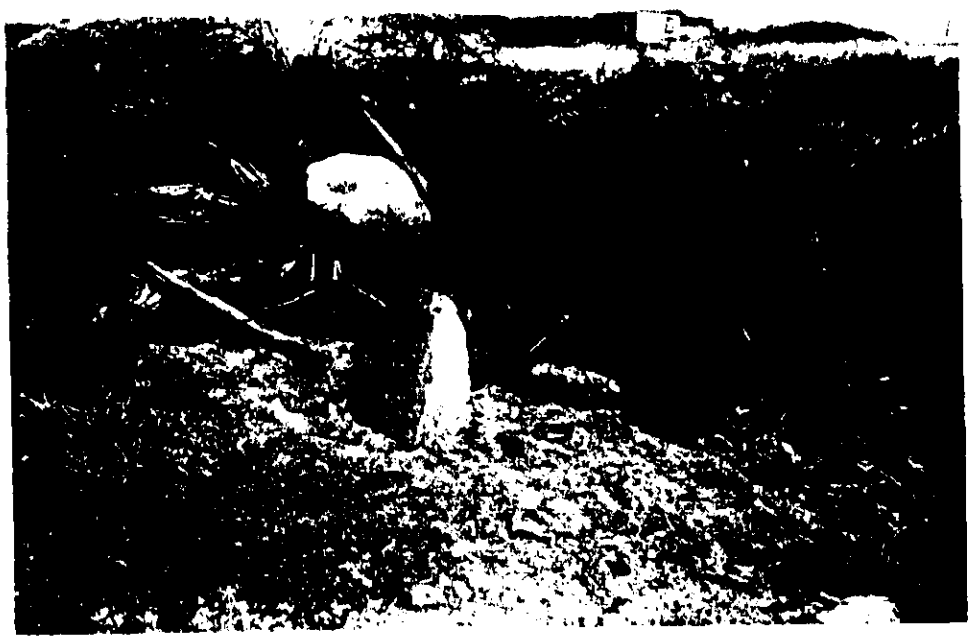


Figure 9



Figure 10



Figure 11



Figure 12



Figure 13



Figure 14



Figure 15



Figure 16



Figure 17

IDAHO ISOLATED FIND REPORT

State No. 10

Site/Project Name Sahko Hydro Project, Miller Field No. IF-1

Recorder James C. Woods Date 8-20-93

USGS Quad Niagara Springs, Idaho 19 79 County Twin Falls

T 9 S R 15 E Sec. 13 NE¼ of SW¼ of NE¼ of NE¼

UTM: Zone 11 E 693850 N 4724430

Elevation 3390' Topography Base of Snake River rimrock

Nearest Water Snake River, ca. 0.5 miles @ 0°

Vegetation Very sparse cheatgrass, small sage

Access From intersection of US 93 and Pole Line Road (north edge of Twin Falls City limits at Costco corner) take Pole Line Road 9 miles to the west, turn north 3.7 miles to end of gravel roadway to project area at left of end of roadway in shallow ravine. Find located on west side of topographic projection in center of project area.

Landowner J.M. Miller Dist/Forest Private

Collected? ___ Yes XX No Repository Not Collected

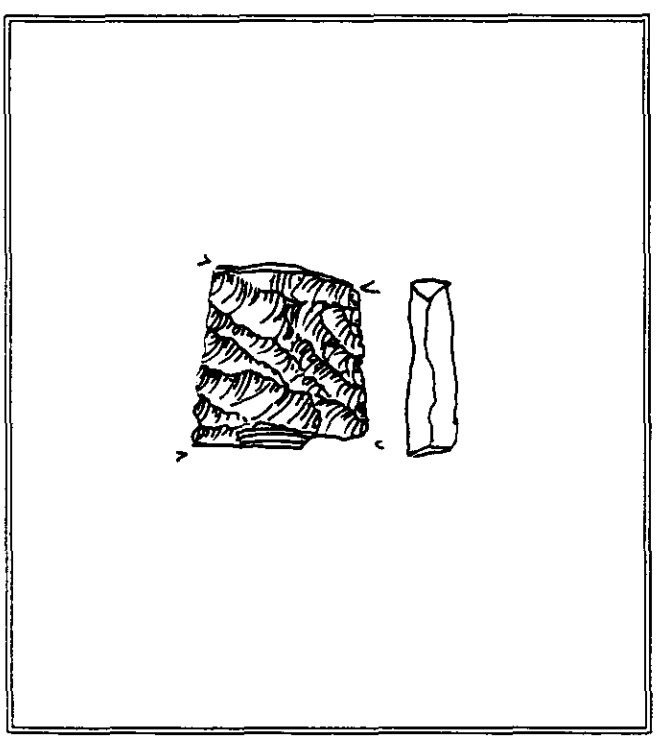
Comments, References, Known Sites in Area Crystal Springs Site (re: Kelley Murphey, located directly north across Snake River)

Artifact Lanceolate point fragment, parallel-flaked, oblique.

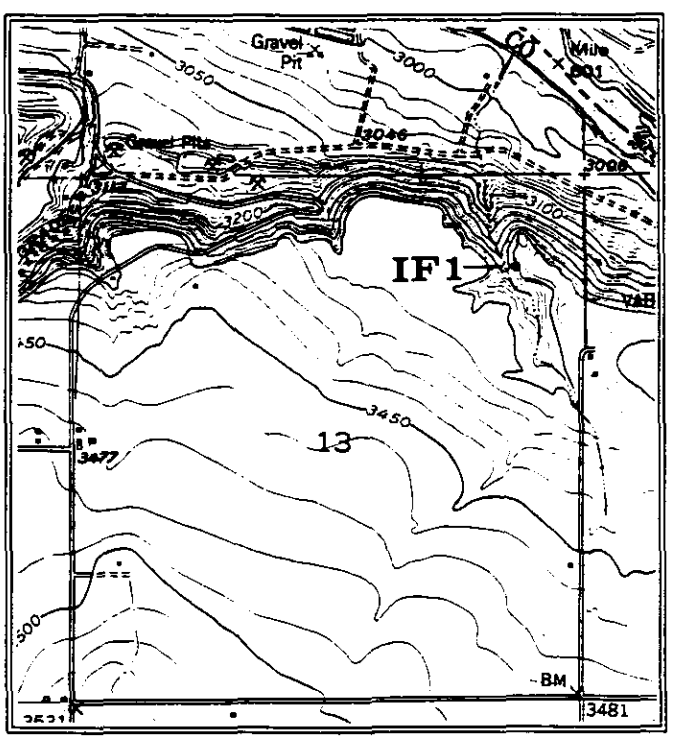
Function/Description/Cultural Affiliation Mid-section of thrusting spear or dart point, bend breaks at both ends.

Material Black, opaque obsidian Dimensions 2.4 x 2.3 x 0.7 cm

Artifact Sketch



USGS Section



APPENDIX 5

Water Appropriation Permit

(Priority 4/24/91)

State of Idaho
Department of Water Resources

Permit To Appropriate Water

NO. 47-08271

Proposed Priority: April 24, 1991 Maximum Diversion Rate: 20.00 CFS

This is to certify, that **J M MILLER ENTERPRISES INC**
PO BOX 595
TWIN FALLS ID 83303-0595
has applied for a permit to appropriate water from:

UNNAMED STREAM	tributary of	**SNAKE RIVER**
WASTE WATER	tributary of	**SNAKE RIVER**

and a permit is **APPROVED** for development of water as follows:

BENEFICIAL USE	PERIOD OF USE	RATE OF DIVERSION
STOCKWATER	01/01 to 12/31	0.05 CFS
POWER	01/01 to 12/31	20.00 CFS
	Totals	20.00 CFS

LOCATION OF POINT(S) OF DIVERSION: SESENE , Sec. 13, Township 09S, Range 15E
TWIN FALLS County

PLACE OF USE: STOCKWATER

TWN	RGE	SEC		
09S	15E	13	NENE	SENE

PLACE OF USE: POWER

TWN	RGE	SEC	
09S	15E	13	NENE

CONDITIONS/REMARKS:

1. Proof of construction of works and application of water to beneficial use shall be submitted on or before **November 1, 1998.**
2. Subject to all prior water rights.
3. Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control.
4. Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.
5. Diversion and use of water under this right is subject to an annual use fee if rules are subsequently promulgated which provide for the submittal of the fee.
6. The Director retains jurisdiction of this right and/or subsequent license issued to change, add or remove any requirement as determined to be appropriate.

State of Idaho
Department of Water Resources

Permit To Appropriate Water

NO. 47-08271

CONDITIONS/REMARKS:

7. This right is subject to the provisions of Sections 42-205 through 42-210, Idaho Code, restricting the sale, transfer, assignment, or mortgage of this right. Failure to comply with these provisions is cause for immediate cancellation of this right.
8. The water right acquired under this permit for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.
9. This right does not constitute Idaho Public Utilities Commission or Federal Energy Regulatory Commission approval that may be required.
10. The right holder shall either install a measuring device or a flow measurement port or provide a certified measurement or computation of flow based upon system design to be prepared by a professional engineer.
11. Water used under this right if discharged into a natural channel or subsurface system shall meet Idaho Water Quality Standards.
12. The Director retains jurisdiction of this right in order to limit the use of water for hydropower generation purposes to a specific term of years as required by Section 42-203B(7), Idaho Code.
13. The storage of water under this right is contingent upon the certification of the dam and authorization of storage per the dam safety provisions of the Idaho Code.
14. Use of water under this right may be affected by an agreement between the protestant and the right holder.
15. Use of water for power under this right shall be non-consumptive.
16. Stockwater use is for 150 range cattle and 50 sheep.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this

16th day of November, 1993.

for R. Keith Higginson, Director

File — 47-08271

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

RESPONSE TO APPLICATION DEFICIENCIES

FERC PROJECT NO. 11060-001-IDAHO

SAHKO HYDROELECTRIC PROJECT TWIN FALLS COUNTY, IDAHO

J.M. MILLER ENTERPRISES, INC., APPLICANT

July, 1994

Prepared By:
J-U-B ENGINEERS, Inc.
Engineers Surveyors Planners
800 Falls Ave.

Twin Falls, Idaho 83301

MICROFILMED
NOV 3 0 1998

J·U·B ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208•733-2414
FAX: 208•733-9455

July 8, 1994

Secretary
Federal Energy Regulatory Commission
Washington, DC 20426

ATTN: OHL

Re: Project No. 11060-001-Idaho
Sahko Hydroelectric Project
J. M. Miller Enterprises, Inc.
RESPONSE TO APPLICATION DEFICIENCIES

Dear Secretary:

On behalf of our subject client, we are responding herein, and with attached appendices, to the April 14, 1994 letter of DPR Acting Director Clements, citing various deficiencies of the referenced application for minor license.

Copies of this material are also being transmitted to the parties included on the Service List.

RE: SCHEDULE A - DEFICIENCY ITEM #1

("...Provide a detailed description of all the existing and proposed facilities associated and necessary for the development of this project.")

Response

No changes have been made to existing or proposed facilities identified in the initial application; thus, no revisions to the body of the document have been made, with the following exception.

Attached as **Appendix A** is a **revised Exhibit G** (now styled as Exhibit Drawings G-1, G-2, G-3 and G-4) identifying the proposed project on lands owned by the Applicant, and also including area maps identifying the watercourse upstream of the proposed impoundment to its withdrawal point from the reservoir at Milner Dam on the Snake River.

The enclosed **Appendix B,** an excerpt from the Idaho Comprehensive State Water Plan, includes a description of Milner Dam and reservoir, and a description of the Twin Falls Canal Company's water delivery system.

Applicant has executed agreements with the Twin Falls Canal Company, through whose water delivery system some portion of project flows are to be delivered. A copy of the agreement is enclosed as **Appendix C.**

RE: SCHEDULE A - DEFICIENCY ITEM #2

("... *Provide a description of how the powerhouse is to be operated, automatic or manual, and whether it would be used for peaking.*")

Response

Specifically, powerhouse operation is planned to be automatic. Water-level sensing devises in the forebay will communicate via programmable controller with the turbine-generator. Nozzle capacity will be matched with incoming flows, thereby reducing or eliminating the potential for significant water surface fluctuations in the forebay.

It is not intended to operate the project for providing "peaking" power.

As stated in the Application's Exhibit A, the project will generally be operated as "run-of-ditch", that is, the project will use whatever flows enter the impoundment as either irrigation waste flows or as emanating from natural springs on Applicant's property.

Remote communications equipment will be located at the property manager's residence nearby. Personnel will probably visit the site twice a day, in order to clean the trash racks, carry out maintenance tasks, and otherwise ensure proper plant operations.

RE: SCHEDULE A - DEFICIENCY ITEM #3

("...*Provide the estimated average flow of the stream at the powerhouse and point of diversion.*")

Response

As was shown in the Table E-1 of the originally submitted application, and a copy of which is enclosed as **Appendix D**, annual inflows to the project near the powerhouse average **5.5 cfs**. Although Applicant initially identified this flow as related to both the location of the powerhouse and the point of diversion, Commission staff's determination of the project's physical scope now indicates a point of diversion at the Milner Dam approximately 54 miles upstream through the Twin Falls Canal system.

Flows measured at a weir just upstream of the drain's descent from the canyon rim indicate inflows ranging from approximately 1.5 to more than 17 cfs. Applicant observes these flows to be normal to slightly below-normal inflows considering the recent water years' below-normal area-wide conditions.

Based on historic Twin Falls Canal Company records, average annual diversion to the canal at Milner Dam is 1,113,700 acre feet (see page 56, **Appendix B**).

RE: SCHEDULE A - DEFICIENCY ITEM #4

("... *Provide copies of letters transmitting the final application to consulted agencies and groups.*")

Response

Enclosed as **Appendix E** are copies of Transmittal Letters, dated 12/10/93, from Applicant's Agent, and attached to which were copies of the application for license.

RE: SCHEDULE A - DEFICIENCY ITEM #5

("...Provide the requested information [ie., consistency or inconsistency with]... each [comprehensive] plan, that may be relevant to your project area.")

Response

Applicant's Agent requested each consulted agency on the Service List to comment on the project's relevance to comprehensive plans for which the agency had oversight, authorship, or administrative responsibility.

Specifically, it was requested that each agency provide information

> "...concerning your role as the administering agency, or as a cooperating agency, of any state, regional, or national water resource development plan(s), and your finding, as appropriate, of whether the proposed project is in conflict with said plan(s)."

Except for the Idaho Department of Water Resources (IDWR), no agency responded with any comments concerning the proposed project's relevance to, or conflict with, any comprehensive plan(s).

The IDWR responded, in its letter of 11/25/92, that while the Kastelu irrigation drain is tributary to the reach of Snake River addressed by Middle Snake River Study (and to which interim protection restrictions apply) the project site was not subject to such interim protection restrictions. Indeed, it is the policy of the Idaho Water Resources Board (IWRB) that investigations of feasibility of projects like that proposed at the Kastelu Drain should be encouraged. Attached as **Appendix F** is a relevant excerpt from Idaho's Comprehensive State Water Plan.

Having now responded to the referenced items of deficiency, we trust that the application's processing may now move forward.

If you have any further questions, please let me know.

Respectfully,

D. W. "Bill" Block, P.E.
Applicant's Authorized Agent

enc. (Appendices A-F)

cc: J.M. Miller Enterprises(w/enc.)
Service list (w/enc.)

Cover pages to be included:

Appendix A	Exhibit Drawings G-1, G-2, G-3, and G-4
Appendix B	Description of Milner Dam and reservoir and Twin Falls Canal Company Water Deliver System (excerpt Idaho's Comprehensive State Water Plan-Snake River: Milner Dam to King Hill)
Appendix C	Agreement between James Miller and Twin Falls Canal Company
Appendix D	Table E-1 (Duplicate) - Actual Average Weekly Flow Data
Appendix E	Transmittal Letters (J-U-B Engineers)
Appendix F	Idaho Comprehensive State Water Plan - Snake River: Milner Dam to King Hill (excerpt)

APPENDIX A

Exhibit Drawings G-1, G-2, G-3 and G-4

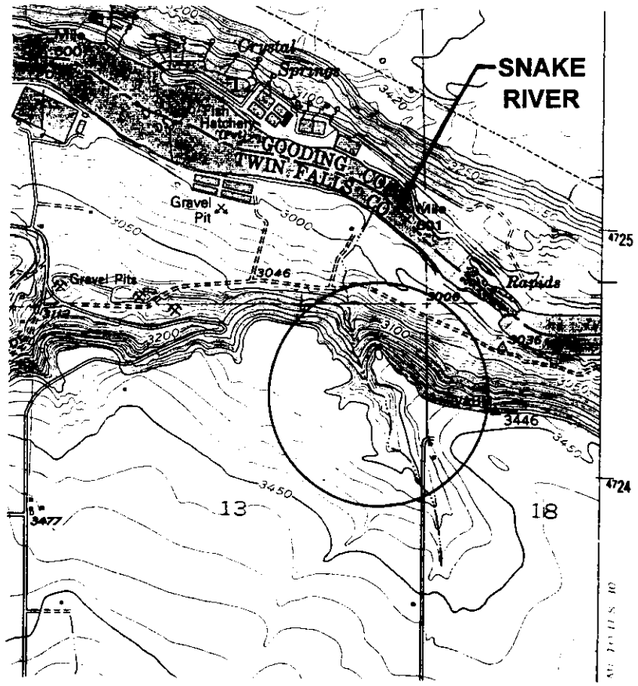
7 18
12 13

N

100 50 0 100 200 300
SCALE IN FEET

PROJECT LOCATION :
NE1/4 OF SECTION 13
TOWNSHIP 9 SOUTH
RANGE 15 EAST
BOISE MERIDIAN

INTERCONNECT POINT
EXISTING IPCO LINE
2100 EAST ROAD
EXISTING ROAD
CULVERT
SEDIMENT COLLECTION EMBANKMENT - CREST ELEV. = 3397.0
BYPASS LINE
BYPASS DITCH
TRANSMISSION LINE
INTAKE ACCESS ROAD
SPRINGS
SEDIMENT COLLECTION BASIN - WATER SURFACE ELEV. = 3393.5
OVERFLOW SPILLWAY CREST ELEV. = 3393.0
FOREBAY WATER SURFACE ELEV. = 3390.0
PENSTOCK INTAKE STRUCTURE
BYPASS LINE
INTAKE EMBANKMENT CREST ELEV. = 3394.5
OVERFLOW SPILLWAY CREST ELEV. = 3390.0
PENSTOCK
PENSTOCK
TRANSMISSION LINE
EXISTING WEIR
EXISTING ROAD
SWITCH YARD
EXISTING DRAINAGE
POWERHOUSE



IDAHO

TWIN FALLS COUNTY

G-1
G-4
G-3
G-2

EXHIBIT "G" KEY

REVISED 6-30-94
REVISED 3-16-93

EXHIBIT G-1

PROJECT LOCATION MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

TWIN FALLS CANAL COMPANY

TWIN FALLS, IDAHO

SYSTEM MAP

AUGUST, 1986

R.19 E. R.20 E. R.21 E.

MATCH LINE SEE EXHIBIT G-3

HANSEN BRIDGE

MAIN CANAL

TWIN FALLS CANAL SYSTEM DIVERSION

MILNER LAKE

MILNER DAM

SNAKE RIVER

MAIN FALLS CANAL

MURTAUGH

MURTAUGH LAKE

U.S HWY 30

U.P.R.R.

HANSEN

TWIN FALLS

COULEE

DRY CREEK

COTTONWOOD CREEK

HIGH LINE CANAL

T10S

T9S

N.

3000 1500 0 3000 6000 9000

SCALE IN FEET

LEGEND

- COULEE (With Identification)
- LATERAL (With Identification)
- DRAIN
- PIPE
- MAIN CANAL
- COUNTY ROAD
- HYDROELECTRIC POWER PLANT
- TELEMETRY GAGE STATION
- RECORDER GAGE STATION

EXHIBIT G-2

AREA MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

R.17 E. R.18 E. R.19 E

T.10 S. T.11 S.

N.

SCALE IN FEET 3000 1500 0 3000 6000 9000

MATCH LINE SEE EXHIBIT G-2

MATCH LINE SEE EXHIBIT G-4

PERRINE BRIDGE SNAKE RIVER SHOSHONE FALLS DIERKES LAKE TWIN FALLS HANSEN BRIDGE

TWIN FALLS KIMBERLY HANSEN SIMON

U.S. HWY 93 STATE HWY 74 U.S. HWY 30

MAIN CANAL TWIN FALLS CANAL LOWER LINE CANAL

PERRINE #1 PERRINE #2 PERRINE #3 PERRINE

ROCK CREEK COULEE

TWIN FALLS AIRPORT BLUE LAKES BLVD. HIGH LINE CANAL

UPRR

EXHIBIT G–3

AREA MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

R.15 E. R.16 E. R.17 E. R.18 E.

T.9 S.

T.10 S.

PROJECT LOCATION
SEE EXHIBIT G-1

MATCH LINE
SEE EXHIBIT G-3

N.

3000 1500 0 3000 6000 9000
SCALE IN FEET

RIVER
MATHEWS
HOLMES
WALTER
BROWN
CEDAR DRAW
U.P.R.R.
DEWEY
RECTOR
ROCK CREEK
U.S. HWY 93
ANNE
TWIN FALLS
PERRINE BRIDGE
SNAKE RIVER
SHOSHONE FALLS
DIERKES LAKE
PERRINE #1
PERRINE #2
PERRINE #3
PERRINE
HWY 93
38 SPILL
CANAL
DRAW
STATE LINE
STATE HWY 74
EXT
TFC.
DOUGLEE

EXHIBIT G-4

AREA MAP

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO

J. M. MILLER ENTERPRISES, INC., APPLICANT

APPENDIX B

Description of Milner Dam and Reservoir and Twin Falls Canal Company Water Deliver System (excerpt Idaho's Comprehensive State Water Plan-Snake River: Milner Dam to King Hill)

D R A F T

Comprehensive
STATE WATER PLAN

Snake River: Milner Dam to King Hill

Idaho Water Resource Board
January 6, 1993

DRAFT
COMPREHENSIVE STATE WATER PLAN:
Appendix B

Milner Dam to King Hill

Idaho Water Resource Board

F. Dave Rydalch, Chairman
Clarence A. Parr, Vice-Chairman
Gene M. Gray, Secretary
Brent J. Bell
Kenneth E. Hungerford
Donald R. Kramer
William S. Platts
Mike Satterwhite

January 6, 1993

Agriculture

The Middle Snake region historically has built its economic base around agricultural operations. Grain, hay, beans, and potatoes, along with beef, dairy, and fish operations are the primary agricultural commodities. These commodities provide the raw products for food and seed processing plants located throughout the area. In 1990 the estimated market value of crops, livestock, and fish produced in Gooding, Jerome, and Twin Falls counties totaled $450 million.

CROP IRRIGATION

Approximately 500,000 acres of cropland are irrigated with water from the Snake River diverted at Milner Dam into the Twin Falls, North Side, Milner-Gooding, and the Milner Low-Lift canals. Irrigation diversions are also made from Snake River tributaries and springs, and farmers irrigate roughly 150,000 acres in the area from deep wells (Fig. 11). The existing network of irrigation companies in the planning area is extensive. Two-thousand six-hundred miles of irrigation canals serve the upland area bordering the Middle Snake reach (Map: Diversions and Canals). Irrigation organizations are listed in Table 10, which also lists irrigated acreage by county and water source.

There are 2,740 irrigated farms in Gooding (621), Jerome (768), and Twin Falls (1,351) counties covering 515,432 acres (Fig. 12; 1987 Census of Agriculture, U.S. Bureau of the Census). Average farm size is 300 acres, and 99 percent are individual or family owned. About 47 percent of the irrigated acreage is in furrows, and 53 percent is watered by sprinklers. Irrigated acreage represents 52 percent of all farm acreage, and 84 percent of total cropland in the three counties.

The primary crops are hay and alfalfa, cereal grains, beans, and potatoes. The irrigated soils have qualities that dictate the growing of close-growing crops and legumes, such as alfalfa or grass hay, at least 50 percent of the time. Pasture and alfalfa are more prevalent on the north side of the river due to rougher terrain and shallower soils, and comprise 70 percent of the crop production in Gooding County (UI, 1991a). Jerome County had more acreage in cereal grains than any other crop, however, beans, potatoes, and sugarbeets are important crops in the central and eastern portion of the county (UI, 1991b). Beans are the main commodity in Twin Falls County, but potatoes, sweet corn, sugarbeets, seed crops, barley, wheat, hay, and alfalfa are also planted in significant quantities (Idaho Agricultural Statistics Service, 1991). Climate and low humidity have made the Magic Valley the world's major snap bean seed producer, sustaining approximately 90 percent of supply.

Between Milner Dam and King Hill the Snake River is deeply entrenched below the surface of the Snake River Plain and has limited irrigation use. There are about 8,000 acres irrigated along the river in the canyon bottom, most of which are in the Hagerman Valley. Most of these lands are irrigated from various tributary creeks and springs rather than from the Snake River proper. Hay, grain, and forage crops predominate, but the high summer temperature and a comparatively long growing season allow for a wide crop selection in the canyon. Watermelons, cantaloupes, and tree fruits are successfully grown. Orchards are found along the canyon bottom between Twin Falls and the Buhl Bridge. An enterprise new to the Snake River bottom lands is the wine industry. Rose Hill winery has recently begun operations in Hagerman.

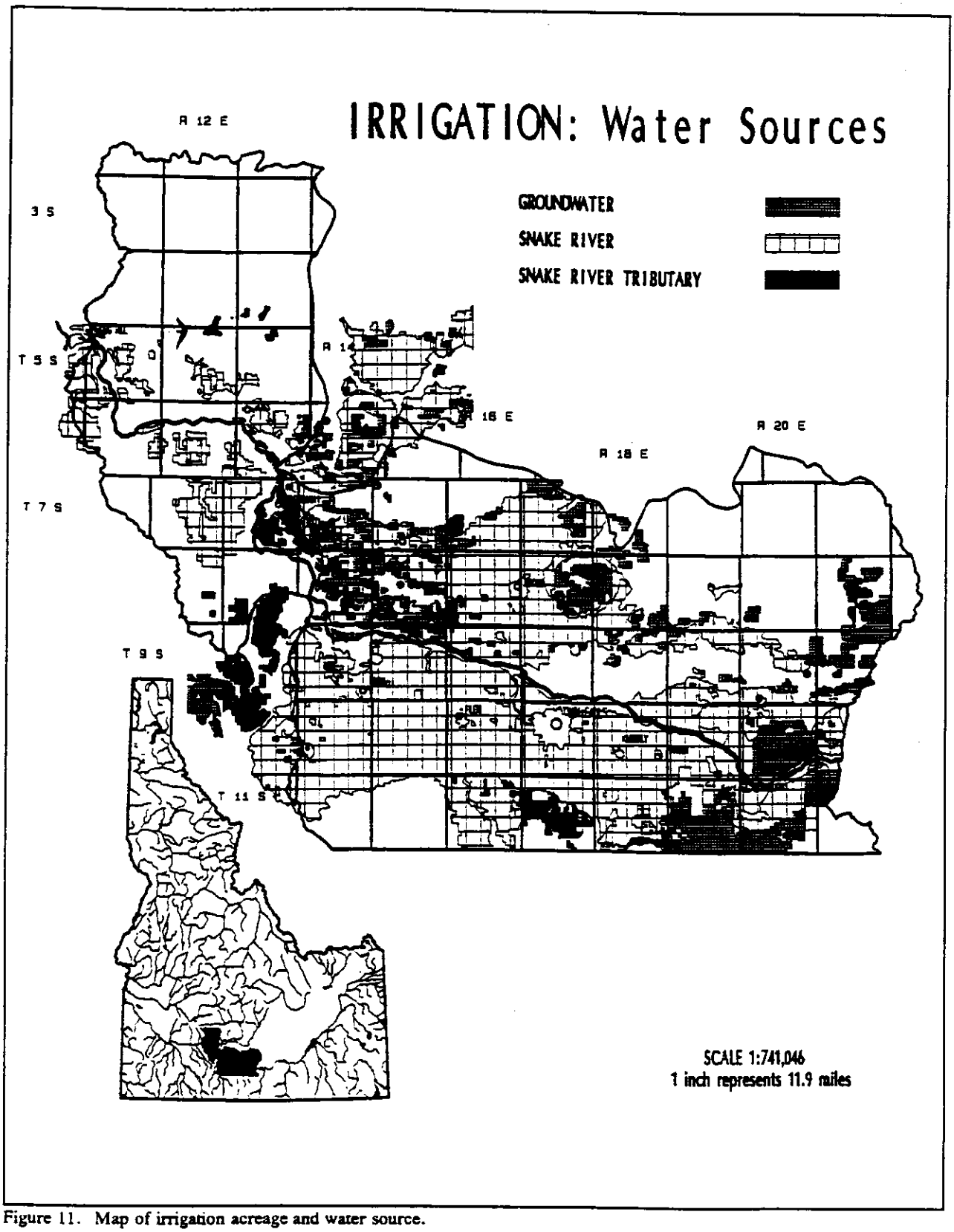


Figure 11. Map of irrigation acreage and water source.

Table 10. Irrigated Cropland Acreages by County

	Twin Falls	Jerome	Gooding	Elmore
Ground-water Source	32,396	54,442	42,648	
Surface Water Source	280,679	134,314	85,318	
Snake River Diversions	234,236	134,314	75,378	11,200
Snake River Tributary Diversions	9,853		1,996	
Salmon Falls Creek Diversions	42,790			
Thousand Springs Diversions			7,268	
Malad River Diversions			676	
Combined Ground Water and Surface Water Diversions	18,313		1,797	
TOTAL	337,588	188,756	129,763	11,200
Irrigation Organization				
Private Ground Water	32,396	45,233	44,445	
Private Snake River Diversions	424			
Milner Irrigation District	13,500			
Twin Falls Canal Co. (Snake River)	202,030			
North Side Canal Company		102,887	39,177	
North Side Pump Company		12,158		
American Falls Reservoir District No. 2		10,037	36,201	
A & B Irrigation District - Ground Water		9,209		
A & B Irrigation District		9,232		
King Hill Irrigation District				11,200
Bell Rapids Mutual Irrigation Co. (Snake River)	20,820			
Private Snake River Tributary Diversions	2,173		9,264	
Private Salmon Falls Creek Diversions	10,852			
Magic Water Corporation (Salmon Falls Creek)	7,120			
Salmon River Canal Co. (Salmon Falls Creek)	36,591			
Cedar Mesa Canal Co. (Snake River Tributary)	5,783			
Mud Creek Water User's Association	543			
Rock Creek Water District	5,356			
Private Malad River Diversions			676	
TOTAL	337,588	188,756	129,763	11,200

Source: IDWR, 1978.

Crop consumptive use of water varies with crop type and location. Generally, alfalfa, potatoes, and sugar beets have the highest consumptive-use rates at all locations (Table 11). Row crops such as corn, small vegetables, and beans use less water. Average crop consumptive irrigation requirements at Twin Falls are 18 inches per year. Irrigation requirements vary from year to year, depending on temperature and the amount and seasonal distribution of precipitation. Winter, spring, and fall precipitation will reduce irrigation-water withdrawals if adequate soil moisture delays the start of irrigation in the spring or hastens its end in the fall. Scant precipitation during summer months has less effect on irrigation-water withdrawals.

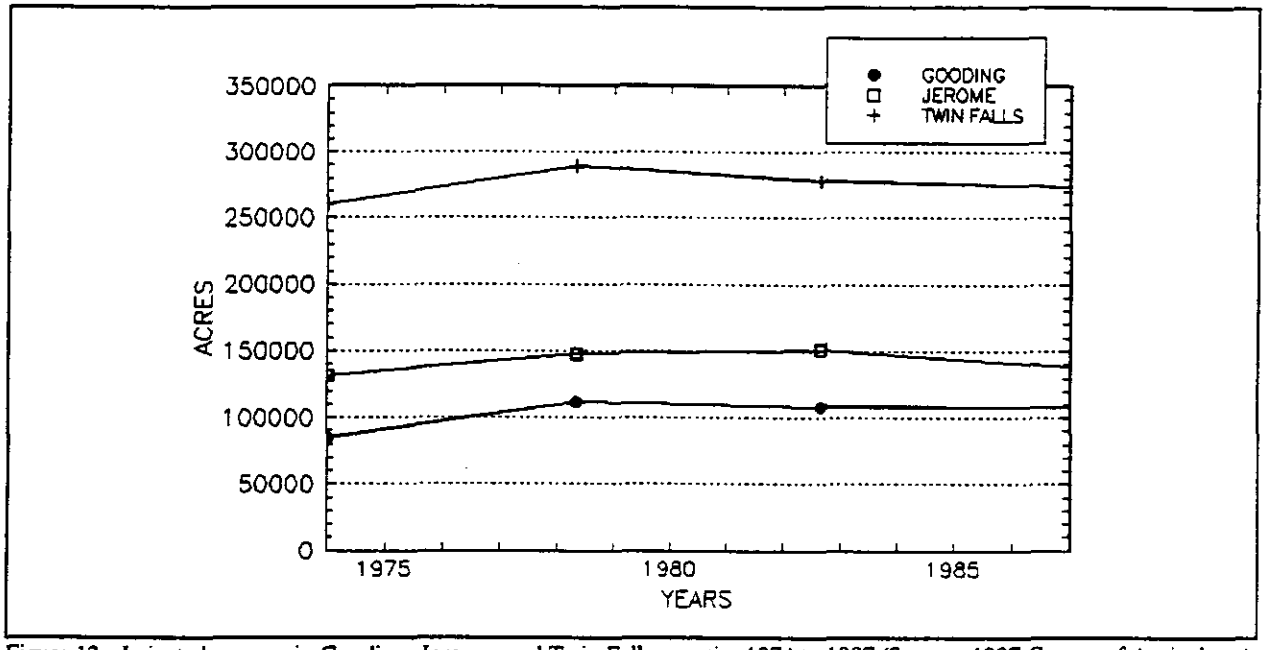


Figure 12. Irrigated acreage in Gooding, Jerome, and Twin Falls counties 1974 to 1987 (Source: 1987 Census of Agriculture).

Table 11. Average Rates of Consumptive Water Use for Crops (Twin Falls)

Sugar Beets	21.9 acre-inches/acre
Dry Beans	15.6
Corn Silage	16.8
Spring Grain	13.2
Potatoes	21.3
Winter Grain	19.2
Alfalfa	23.2
Grass/Pasture	18.3
Orchard	18.9

Source: Corey, G.L. and R. Sutter, 1971. *Agricultural Water Needs: Consumptive Irrigation Requirements.* Idaho Water Resource Board, Water Planning Studies No. 5.

The amount of water applied to crops genrally exceeds irrigaton-water requirements because of onfarm losses. Water evaporates from exposed water surfaces in gravity-distribution systems. Runoff and seepage occur when more water is applied than can be evapotranspired or absorbed and retained by the soil. Water also seeps from unlined ditches. The U.S. Soil Conservation Service (1977) estimated that about 40 percent of water diverted for irrigation in the Snake River Basin is lost to evaporation, runoff, and seepage.

Early irrigation development was limited to the Snake River canyon and several of the tributary streams. Large scale irrigation began in the early 1900s with effective use of provisions of the Carey Act of 1894 and the Reclamation Act of 1902. Federal legislation facilitated the transfer of

public lands to individuals for private reclamation projects. The new federal involvement provided coordination and funding for construction of dams, reservoirs, and canals, which in turn, stimulated expansion of irrigated acreage. The Twin Falls Project was one of the largest projects developed under the Carey Act.

In 1900 the Twin Falls Land and Water Company obtained a permit to appropriate 3,400 cfs of natural flow from the Snake River and received a segregation of 244,026 acres of desert land. In 1903 the project began with the construction of the Low Line Canal and Milner Dam on the Snake River. The first water deliveries were made in the spring and summer of 1905. In 1910, the operating company was turned over to the project settlers.

On the north side of the Snake River canyon, the Twin Falls North Side Land and Water Company initiated Carey Act projects. The North Side project was designed to divert water from the Snake River at Milner Dam into two offstream storage reservoirs enabling lands in Jerome, Gooding, and Elmore counties to be irrigated. The original plan proved to be infeasible when difficulties were encountered with the offstream storage reservoirs. The developing company then contracted with the U.S. Reclamation Service for the enlargement of the dam at Jackson Lake, Wyoming. The first water deliveries were made in 1909. In 1920, the irrigation system, consisting of 100 miles of main canal and 800 miles of laterals, was completed and turned over to the settlers for operation as the North Side Canal Company.

Water rights for most unregulated flow in the Snake River were decreed by 1908, and in low water years supplies were inadequate. Supply was augmented by federally financed construction of additional dams and reservoirs in the Upper Snake Basin. When demand for irrigation water increased after World War II, ground water was the logical source of supply.

Since the 1960s, total area irrigated with sprinklers has increased. This is due, in part, to development of lands unsuitable for gravity irrigation, but increasing energy costs associated with pumping water have also made efficient water-distribution systems more economical. On the north side tracts, sixty to seventy percent of the acreage under irrigation is watered by sprinklers (Alberti and Diel, 1992). On the south side changes are being made in irrigation methods, but at a much slower rate. Only about 20 percent of irrigated acreage on the south side is watered by sprinklers (Hauman, 1992). The rapid change in irrigation methods on the north side is attributed to improved productivity with sprinklers on the north side's rougher terrain.

The increasing number of sprinkler irrigation systems has reduced water demand but has increased canal system control problems. The canal systems were designed for gravity delivery and flood or furrow irrigation. When pumps shut down, the smaller lower laterals and ditches cannot

handle the increased water volume. Sprinkler operators are usually asked to continue diverting at a constant rate.

The Department of Water Resources has 1,400 water rights on file for the diversion of surface water for irrigation in Gooding, Jerome, and Twin Falls counties. Aside from the primary canal company diversions, many of the surface water rights and permits are for miscellaneous drains and ditches in the area northwest of Buhl. A total of 1,579 water rights are on file with the Department for the diversion of ground water for irrigation in the three counties. The centers for this development are Hazelton Butte and Flat Top Butte in Jerome County, land south of Wendell in Gooding County, and the Dry Creek area, south of Murtaugh.

Milner Dam Diversions

The Twin Falls Canal Company delivers water to approximately 203,000 acres of irrigated cropland in Twin Falls County, through a system consisting of 110 miles of main canals and over 1000 miles of laterals and drains (Haumann, 1992). Because the company has the water rights to divert most of the natural flow at Milner, it has not purchased much upstream water storage. The flow rights allow the diversion of 3,000 cfs with a priority date of 1900 and 600 cfs with a priority date of 1915. Following original project construction, the canal company augmented water supplies with storage purchases in Jackson Lake and American Falls Reservoir. They currently hold 96,000 acre-feet at Jackson Lake, and 150,000 acre-feet at American Falls.

The average annual diversion (1971-1991) for irrigation by the Twin Falls Canal Company is 1,113,700 acre-feet of water, an average of 5 acre-feet per acre. Construction charges have been paid and maintenance charges are approximately $16.00 per acre for each individual land owner for all the land in the legal description. Water is in the canal system from about April 1 through November 15 in a normal year. Canal flows during the early spring and fall are considerably lower than during the peak irrigation season of June, July, and August because some crops do not require early spring and fall irrigation. Most crops are irrigated by small furrows. In the early spring the tract usually has good water supplies as natural flows are high. When flows recede in July and August, and with little upstream storage, water supplies are vulnerable.

Sprinkler installations on the tract are centered in the Murtaugh area, and in the Balanced Rock Soil Conservation District (SCD) on the western margin. The Balanced Rock SCD is providing funds for sprinkler conversion.

The North Side Canal Company distributes water to approximately 161,000 acres of agricultural land located in Jerome, Gooding, and Elmore counties. The Northside Canal Company holds water rights to 300,000 acre-feet of natural flow from springs at American Falls, and 800,000

acre-feet of upper river reservoir storage. Storage rights include Palisades, 116,000 acre-feet; Jackson Lake, 312,000 acre-feet; and American Falls, 397,470 acre-feet. They also have a 15 cfs right on the Big Wood River (1890), and Snake River rights on filings of 300 cfs, (1900); 2,250 cfs, (1905); 350 cfs, (1908); 1,260 cfs, (1920); and 300 cfs, (1915). During years with a small snowpack, and consequently low reservoir levels upstream, the company must reduce its water deliveries.

The average annual diversion is approximately one million acre-feet, or an average of 6.5 acre-feet per acre. Conversion to sprinkler systems has been particularly rapid over the last 3-5 years on the North Side tract. Approximately 70 percent or over 100,000 acres of the project are irrigated by sprinklers. Some piping of canals is being done to allow for the installation of pivots.

The Milner-Gooding Canal was constructed by the Bureau of Reclamation from 1928 to 1932 as part of its Minidoka project. The 70 mile long canal was built to supply Snake River and reservoir storage water to 65,000 acres in the Shoshone and Gooding areas. The Milner-Gooding Canal is operated by American Falls Reservoir District No. 2. An average of 474,000 acre-feet of water, mostly from reservoir storage, is diverted annually by the Milner-Gooding Canal. The District has 400,000 acre-feet of storage in American Falls Reservoir.

In the eastern portion of Twin Falls County 13,500 acres are served by the Milner Irrigation District. The District was formed in 1921. Annual diversions average 60,000 acre-feet, an average of 3.7 acre-feet per acre. Thirty percent of the District is irrigated with sprinklers (Bright, 1992).

Diversions Below Milner

High-lift pumping from deeply entrenched reaches of the Snake River is a recent development. Below Milner, 90 percent of irrigation withdrawals from the Snake River are pumped. From Milner to Hagerman, the river is entrenced in a sharply incised canyon, and almost all withdrawals are by large pumps that supply water to lands close to the canyon rim. Large pumping stations typically have several pumps that feed one or more penstocks that discharge into a canal system on the canyon rim.

From Hagerman to near King Hill, the river is entrenched several hundred feet, but the canyon bottom is several miles wide in some places. Water is withdrawn along this reach by large, high-lift pumps to supply water to tracts on the canyon rim and by smaller pumps that supply water to canyon bottom lands.

The Bell Rapids project, a private development in northwestern Twin Falls County, involves about 28,000 acres. The first crop year for the Bell Rapids project was 1971. Irrigation water is

pumped from the Snake River in the Lower Salmon Falls Pool. Some of the land is currently under the Conservation Reserve Program.

The Cottonwood development involves 5,000 acres on Black Mesa in eastern Elmore County. Annual diversions are 3,500 acre-feet.

The King Hill Irrigation District provides water to 11,200 acres in Elmore County. The District has a water right from the Malad River with a priority date of 1902. Eighty-five percent of the district irrigates with sprinklers. In 1979 the District transfered its Malad River water right to the Snake River and currently diverts water at three pumps along the Middle Snake reach: Wiley, Black Mesa, and King Hill. Average annual diversions above King Hill (1979-1991) are 31,700 acre-feet.

Ground-Water Irrigation

Development of ground water for irrigation on the Snake River Plain began in the mid 1940's. South side ground-water development began in the mid 1950's in an area west of Buhl known locally as Blue Gulch. The Snake River Plain Aquifer is readily accessible with pumping lifts ranging from 100 to 500 feet. Most ground-water development has been conducted privately by individual farm operations, primarily in those areas not included in the initial surface water irrigation tracts because of their isolated locations or excessive elevation. Sprinkler irrigation is the most common irrigation method used with ground-water pumping.

Within areas served by surface water diversion, individual farm operations have developed ground water as a supplemental water source and to increase the flexibility of on-farm irrigation methods and scheduling. More than 300 irrigation wells are interspersed in surface-water irrigated areas in Jerome and Gooding counties.

LIVESTOCK OPERATIONS

Livestock and trout account for half the market value of agricultural products in Gooding, Jerome, and Twin Falls counties. A significant number of dairies and confined animal feeding operations are located in the three county area. The USDA 1992 estimate for all cattle and calves in the area was 303,500 head. Lambs and sheep are estimated at 43,000 head (Table 12). Very few sheep are raised in farm flocks; most are raised in the upland, mountain areas. Poultry operations account for 298 farms, and 153 farms raise hogs and pigs in the three counties (1987 Census of Agriculture, U.S. Bureau of the Census).

APPENDIX C

Agreement Between James Miller and Twin Falls Canal Company

AGREEMENT

This Agreement made and entered into 31st day of MARCH, 1993, by and between TWIN FALLS CANAL COMPANY, an Idaho Corporation (hereinafter TFCC), and James M. Miller (hereinafter Miller).

WHEREAS, Miller wishes to relocate approximately 4600 feet of TFCC's Lateral 39, 2LL and to construct a silt pond as shown on Exhibit A hereto in the N 1/2 Section 13, T9S, R15E, Boise Meridian, Twin Falls County, Idaho: and

WHEREAS the parties wish to delineate their agreement in writing;

NOW THEREFORE, in consideration of the mutual covenants and promises herein contained and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. TFCC'S PERMISSION. TFCC hereby grants permission to Miller to relocate approximately 4600 feet of Lateral 39, 2LL, and to construct a silt pond within the property of Miller in the N 1/2, Section 13, T9S, R15E, Boise, Meridian, Twin Falls County, Idaho A sketch of the property and the lateral relocation and silt pond location is Exhibit A hereto. All work shall be accomplished so as not to interfere with TFCC's water deliveries.

2. SPECIFICATIONS FOR LATERAL AND SILT POND. Miller will relocate and construct approximately 4,600 feet of lateral to a depth and width necessary to convey water deliveries and/or waste water. Miller agrees to construct a silt pond of a size and depth necessary for silt removal. Miller and TFCC agree that there is no intent to establish a wetland.

3. EASEMENTS. Miller hereby grants to TFCC an easement for the new location of Lateral 39 through the property of Miller. In exchange TFCC hereby abandons all claims to an easement along the present location of Lateral 39. Miller hereby grants TFCC right to egress and ingress said easment. Miller shall furnish TFCC with an as-built location of the lateral relocation following installation.

4 FUTURE MAINTENANCE Miller agrees to hereafter maintain that portion of the relocated Lateral 39, 2LL and the silt pond pursuant to this Agreement. In the event that there is a future failure of the lateral or water deliveries are impeded for whatever reason, Miller shall rectify the problem as soon as possible following observation by Miller or notice, either oral or written by TFCC. In the event that Miller does not restore the operation of the system so that irrigation water can be delivered, TFCC reserves the right to rectify the problem. In such event, Miller agrees to be responsible for all costs of repairing the system, and to pay said costs within thirty (30) days after billed by TFCC.

5. INDEMNIFICATION Miller agrees to hold harmless and indemnify TFCC against any claim or claims of any third party, including member stockholders of TFCC, who could be or in any way are injured or damaged by reason of a claim or claims arising out of the construction, operation, or the failure of lateral, including damages from flooding or crop loss claims.

6. COVENANT RUNNING WITH THE LAND In consideration for TFCC's agreement hereunder, Miller acknowledges that the responsibilities it assumes pursuant to this Agreement shall constitute a covenant running with the land for the benefit of TFCC, and shall be binding upon the successors and assigns of Miller

7. BINDING UPON SUCCESSORS AND ASSIGNS. This Agreement shall be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF this Agreement has been executed in duplicate the day and year first above written.

TWIN FALLS CANAL COMPANY

By: Robert W. Schaer
Robert W. Schaer, President

TWIN FALLS CANAL COMPANY

By:
Authorized Representative

By: James M. Miller
James M. Miller

APPENDIX D

Table E-1 (Duplicate) - Actual
Average Weekly Flow Data

TABLE E-1

1991-1992
ACTUAL AVERAGE WEEKLY FLOW DATA
SAHKO HYDROELECTRIC PROJECT

1991			1992		
Week of:		Flow - cfs	Week of:		Flow - cfs
January	2	1.4	December	29	1.6
	8	1.4	January	5	1.6
	15	1.4		12	1.6
	22	1.4		19	1.8
	29	1.4		26	1.9
February	5	1.4	February	2	1.9
	12	1.4		9	1.6
	19	1.4		16	1.4
	26	1.4		23	1.4
March	5	1.1	March	1	1.4
	12	1.1		8	1.4
	19	1.1		15	1.2
	26	1.1		22	1.1
April	2	1.1		29	1.1
	9	1.1	April	5	1.1
	16	2.2		12	8.0
	23	8.0		19	8.0
	30	9.9		26	7.1
May	7	10.4	May	3	6.2
	14	8.9		10	7.5
	21	8.9		17	7.1
	28	11.9		24	7.1
June	4	13.0		31	7.1
	11	15.2	June	7	6.2
	18	16.4		14	7.1
	25	15.2		21	8.7
July	2	16.4		28	8.0
	9	17.5	July	5	6.2
	16	15.2		12	5.8
	23	15.2		19	6.6
	30	11.9		26	7.1
August	6	9.4	August	2	7.1
	13	8.9		9	4.8
	20	8.9		16	7.1
	27	8.9		23	7.1
September	3	8.9		30	7.1
	10	8.9	September	6	7.1
	17	8.9		13	6.6
	24	8.9		20	7.1
October	1	8.9		27	7.1
	8	8.9	October	4	2.5
	15	8.9		11	6.2
	22	7.1		18	6.2
	29	3.5		25	6.2
November	5	3.2	November	1	1.9
	12	3.2		8	1.9
	19	3.2		15	1.4
	26	3.2		22	1.4
December	3	2.5		29	1.4
	10	1.9	December	6	1.4
	17	1.4		13	1.4
	24	1.4		20	1.4
				27	1.4
'91 Weekly Ave:		6.6 cfs	'92 Weekly Ave:		4.4 cfs
			Annual Average:		5.5 cfs

APPENDIX E

Transmittal Letters (J-U-B ENGINEERS)

LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Director		
RE:	FERC License Application		
	11060-000-Idaho		

TO
Office of Hydropower Licensing
Federal Energy Regulatory Commission
801 First St. NE, Rm 1129
Washington, DC 20426

GENTLEMEN:

WE ARE SENDING YOU X ATTACHED ___ UNDER SEPERATE COVER VIA _____

THE FOLLOWING ITEMS: ___ SHOP DRAWINGS ___ PRINTS ___ SAMPLES ___ SPECIFICATIONS
___ COPY OF LETTER ___ PLANS ___ CATALOG SHEETS
___ CHANGE ORDER ___ OTHER _____

COPIES	DATE OR NO.	DESCRIPTION
1	December, 1993	Application for License for Minor Project - Sahko Hydroelectric Project
		J.M. Miller Enterprises, Inc.

THESE ARE TRANSMITTED AS CHECKED BELOW:

FOR APPROVAL ___ AS REQUESTED ___ RETURNED FOR CORRECTIONS ___
FOR YOUR USE X FOR REVIEW AND COMMENT ___
FOR BIDS DUE _____ 19 _____ PRINTS RETURNED AFTER LOAN TO US ___

REMARKS:

IF ENCLOSURES ARE NOT AS NOTED, KINDLY NOTIFY US AT ONCE

COPY FOR _____ SIGNED Kent Hoffman

RECIEVED BY: _____ DATE _____

PLEASE SIGN, DATE AND RETURN WHITE COPY

LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Regional Engineer		
RE:	FERC License Application		
	11060-000-Idaho		

TO
Portland Regional Office
Federal Energy Regulatory Commission
1120 SW Fifth Ave., Ste. 1340
Portland, OR 97204

GENTLEMEN:

WE ARE SENDING YOU _X_ ATTACHED ___ UNDER SEPERATE COVER VIA _____

THE FOLLOWING ITEMS: ___ SHOP DRAWINGS ___ PRINTS ___ SAMPLES ___ SPECIFICATIONS
___ COPY OF LETTER ___ PLANS ___ CATALOG SHEETS
___ CHANGE ORDER ___ OTHER _____

COPIES	DATE OR NO.	DESCRIPTION
1	December, 1993	Application for License for Minor Project - Sahko Hydroelectric Project
		J.M. Miller Enterprises, Inc.

THESE ARE TRANSMITTED AS CHECKED BELOW:

FOR APPROVAL ___ AS REQUESTED ___ RETURNED FOR CORRECTIONS ___
FOR YOUR USE _X_ FOR REVIEW AND COMMENT ___
FOR BIDS DUE _____ 19 _____ PRINTS RETURNED AFTER LOAN TO US ___

REMARKS:

IF ENCLOSURES ARE NOT AS NOTED, KINDLY NOTIFY US AT ONCE

COPY FOR _____ SIGNED Trent Threet

RECIEVED BY: _____ DATE _____

PLEASE SIGN, DATE AND RETURN WHITE COPY

LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993
PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project
ATTENTION:	Mr. Einar Wold, Division Chief
RE:	FERC License Application
	11060-000-Idaho

TO
National Marine Fisheries Service
Env. & Tech. Services Division
1002 NE Holladay St. Room 620
Portland, OR 97232

GENTLEMEN:

WE ARE SENDING YOU [X] ATTACHED [ ] UNDER SEPERATE COVER VIA _____

THE FOLLOWING ITEMS:
[ ] SHOP DRAWINGS [ ] PRINTS [ ] SAMPLES [ ] SPECIFICATIONS
[ ] COPY OF LETTER [ ] PLANS [ ] CATALOG SHEETS
[ ] CHANGE ORDER [ ] OTHER _____

COPIES	DATE OR NO.	DESCRIPTION
1	December, 1993	Application for License for Minor Project - Sahko Hydroelectric Project
		J.M. Miller Enterprises, Inc.

THESE ARE TRANSMITTED AS CHECKED BELOW:

FOR APPROVAL [ ] AS REQUESTED [ ] RETURNED FOR CORRECTIONS [ ]
FOR YOUR USE [X] FOR REVIEW AND COMMENT [ ]
FOR BIDS DUE _____ 19 _____ PRINTS RETURNED AFTER LOAN TO US [ ]

REMARKS:

IF ENCLOSURES ARE NOT AS NOTED, KINDLY NOTIFY US AT ONCE

COPY FOR _____ SIGNED Trent Threet

RECIEVED BY: _____ DATE _____

PLEASE SIGN, DATE AND RETURN WHITE COPY

LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Mr. G. Dean Hilliard		
RE:	FERC License Application		
	11060-000-Idaho		

TO
Army Corp of Engineers
Regulatory Branch
Walla Walla District
Walla Walla, WA 99362-9265

GENTLEMEN:

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		J.M. Miller Enterprises, Inc.

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LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Mr. Warren McFall		
RE:	FERC License Application		
	11060-000-Idaho		

TO
Environmental Protection Office
Idaho Operations Office
420 W. Washington St.
Boise, ID 83702

GENTLEMEN:

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LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993
PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project
ATTENTION:	Chief
RE:	FERC License Application
	11060-000-Idaho

TO

Interagency Archaeological Services
National Park Service
600 Harrison Street, Suite 600
San Francisco, CA 94107

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LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993
PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project
ATTENTION:	Mr. Charles Lobdell, Field Supervisor
RE:	FERC License Application
	11060-000-Idaho

TO
US Fish & Wildlife Service
Boise Field Office
4696 Overland Road. Rm. 576
Boise, ID 83705

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LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Mr. Will Reid		
RE:	FERC License Application		
	11060-000-Idaho		

TO
Idaho Dept. of Fish & Game
Fisheries Program Coordinator
600 S. Walnut Box 25
Bosie. ID 83707

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LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Mr. Carl Nellis		
RE:	FERC License Application		
	11060-000-Idaho		

TO
Idaho Dept. of Fish & Game
Region 4
868 E. Main St.
Jerome, ID 83338

GENTLEMEN:

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J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Mr. Robert M. Yohe II		
RE:	FERC License Application		
	11060-000-Idaho		

TO

Idaho State Historical Society
210 Main St.
Boise, ID 83702

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J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Mr. Loren Holmes		
RE:	FERC License Application		
	11060-000-Idaho		

TO

Idaho Dept. of Water Resources
220 Shoshone St. East
Twin Falls, ID 83301

GENTLEMEN:

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J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Mr. Tim Litke		
RE:	FERC License Application		
	11060-000-Idaho		

TO
Idaho Dept. of Health and Welfare
Division of Environmental Quality
601 Pole Line Rd., Suite 2
Twin Falls, ID 83301

GENTLEMEN:

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LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Ms. Yvonne Ferrell		
RE:	FERC License Application		
	11060-000-Idaho		

TO

Idaho Dept. of Parks and Recreation
Statehouse Mail
Boise, ID 83720

GENTLEMEN:

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LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993	PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project		
ATTENTION:	Mr. Lee Taylor		
RE:	FERC License Application		
	11060-000-Idaho		

TO
Planning and Zoning Administrator
County of Twin Falls
246 3rd Ave. East
Twin Falls, ID 83301

GENTLEMEN:

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LETTER OF TRANSMITTAL

J-U-B ENGINEERS, INC.
800 Falls Avenue
Twin Falls, Idaho 83301
Phone (208) 733-2414

DATE	December 10, 1993
PROJECT#	19453
PROJECT NAME	Sahko Hydroelectric Project
ATTENTION:	
RE:	FERC License Application
	11060-000-Idaho

TO

Librarian
Filer City Library
219 S. Main St.
Filer, ID 83328

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APPENDIX F

Idaho Comprehensive State Water Plan
- Snake River: Milner Dam to
King Hill (excerpt)

D R A F T

Comprehensive STATE WATER PLAN

Snake River: Milner Dam to King Hill

Idaho Water Resource Board
January 6, 1993

DRAFT
COMPREHENSIVE STATE WATER PLAN:

Milner Dam to King Hill

Idaho Water Resource Board

F. Dave Rydalch, Chairman
Clarence A. Parr, Vice-Chairman
Gene M. Gray, Secretary
Brent J. Bell
Kenneth E. Hungerford
Donald R. Kramer
William S. Platts
Mike Satterwhite

January 6, 1993

EXECUTIVE SUMMARY

This component of the Comprehensive State Water Plan is prepared by the Idaho Water Resource Board in keeping with their constitutional and legislative charge to formulate and implement a State Water Plan. This portion of the water plan is prepared for the Snake River from Milner Dam to King Hill, here defined as the Middle Snake (Figs. 1-2). The Idaho Legislature further directed the Board to place the Snake River from Section 5, Township 11 South, Range 20 East, B.M. to King Hill under interim protection, with the goal of identifying in the planning process whether or not the reach deserved designation as part of a state protected rivers system. The study was expanded to include the reach below Milner Dam for congruity.

The Middle Snake reach is visually delineated by the Snake River canyon, a deep, often vertical walled canyon cut through successive basalt flows, with numerous springs which issue through the canyon walls. Water flow through the reach is dependent on Milner Dam releases and discharge from the Snake River Plain Aquifer. Irrigation diversions at Milner Dam diminish summer flows at the upper end of the reach, but tributary springs maintain a relatively secure flow from the backwaters of Upper Salmon Falls Reservoir to King Hill.

Agriculture is the predominant industry of the region. At the eastern end of the reach, farming activities are tied to the irrigation canals on the Snake River Plain, with grazing use more prevalent adjacent to the river. In the canyon, benches formed along the river provide limited opportunities for residential development and cattle grazing. More mixed land uses are found as one travels downstream, because of increased water availability from springs and tributaries, and an expansion of the river floodplain. Much of the land adjacent to the river is undeveloped. Development along the river is primarily for aquaculture, residences, recreation facilities, and pasture. Aquaculture facilities are prevalent between Crystal Springs and Hagerman. Residential development within the canyon and along the canon rim occurs from Shoshone Falls downstream to the town of Bliss.

Over the years, many water supply projects in the region have been built by private individuals and non-profit irrigation companies which rely on Snake River flows. Aquaculture facilities and municipalities tap tributary springs along the Middle Snake reach. Substantial hydropower developments have been built and are being operated by Idaho Power Company and many private owners. Pressure for future water development projects along the reach can be expected with projected growth. Development in the reach is constrained by upstream water rights and the Swan Falls Agreement.

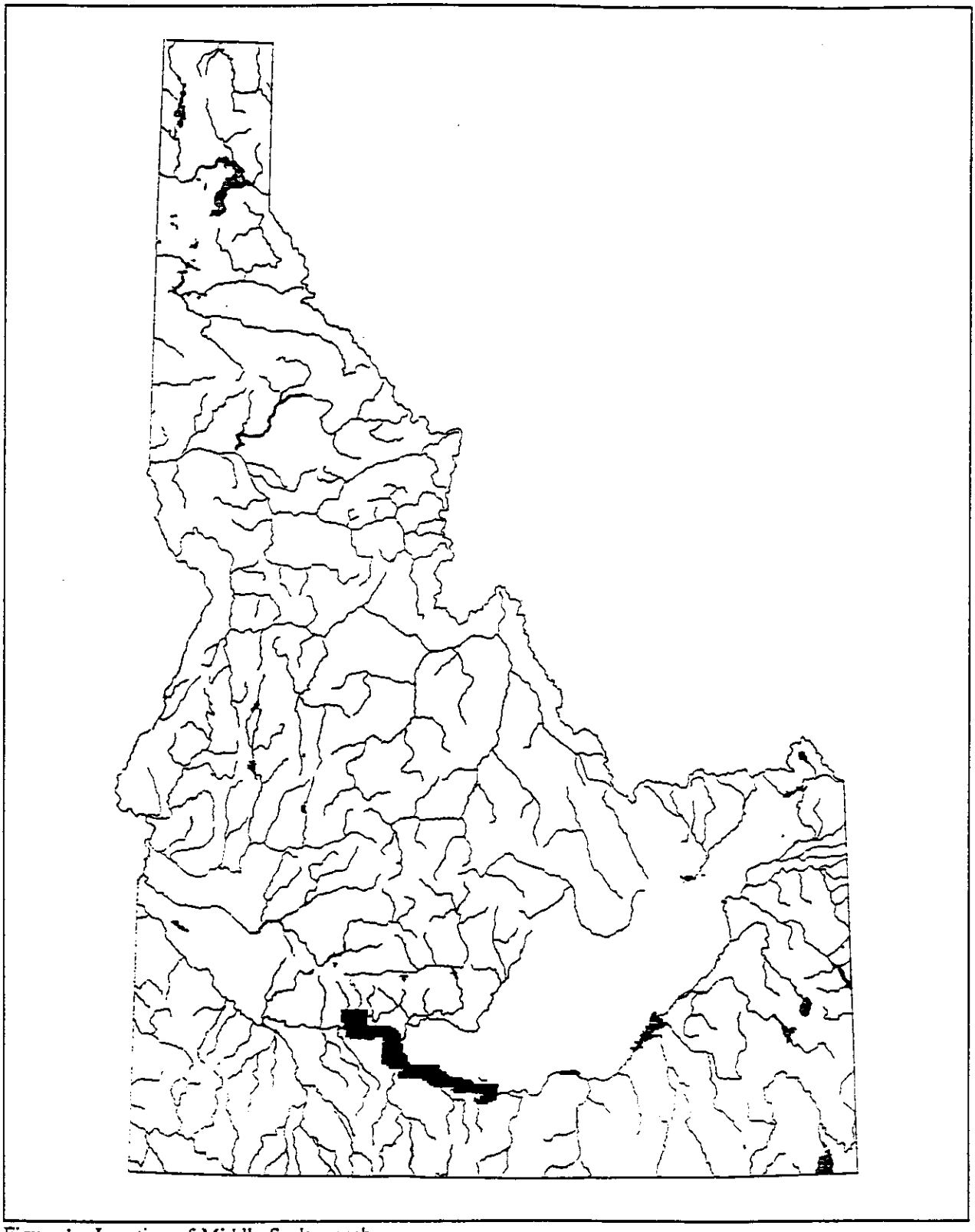


Figure 1. Location of Middle Snake reach

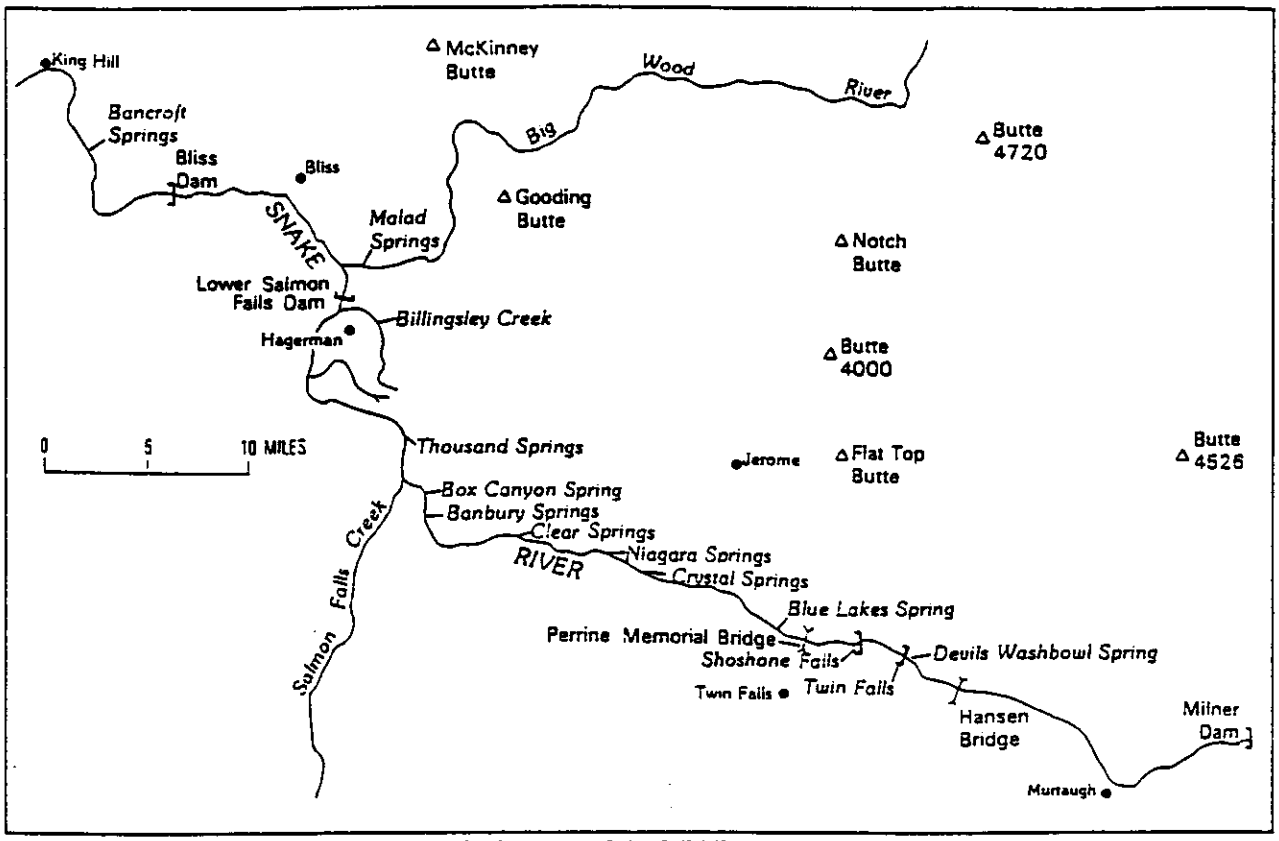


Figure 2. Map showing major geographic features of the Middle Snake reach and vicinity.

An overwhelming concern about water quality has been expressed by residents of the area. Water quality problems in the Middle Snake reach are the consequence of low water flows and nutrient and sediment loading from agricultural runoff, hatchery discharge, municipal effluent, and degradation of inflowing groundwater. Water quality degradation detracts from the scenic character of the Snake River canyon, limits recreational opportunities on the river, and threatens diversions for beneficial uses in and downstream of the Middle Snake reach. The quality of fisheries, wetlands, and wildlife in the Middle Snake reach has declined and will continue to decline under present conditions.

Based on local concern, the single overriding consideration in developing a comprehensive plan for this reach of river is water quality. Forestalling or reversing environmental degradation cannot be realized as long as the Snake River resources are allocated on a piecemeal basis. More attention needs to be paid to cumulative impacts, the assimilation capacity of the river, and coordinated allocation of water resources, both ground and surface water. Public comments also indicate a desire to minimize additional visual changes to the river canyon, particularly in natural or undeveloped areas. To accomplish this objective, visual changes in remaining free-flowing sections of the river and other natural landscapes must be minimized.

Designations

In planning for the use of the water resources of the state, the Water Resource Board is charged with weighing and balancing competing uses and needs. Multi-objective resource planning necessarily involves making trade-offs aimed at achieving the greatest number and best combination of objectives, based upon the overall goals of planning.

In order to protect current resource use, and the multiple-use character of the Middle Snake reach, and recognizing that no action by the Idaho Water Resource Board using their comprehensive water planning authorities can interfere with existing water rights, vested rights, the repair or replacement of diversion works, or the continued operation of existing hydropower facilities, the Idaho Water Resource Board takes the following action (Fig. 3):

1) Designates the Snake River from the Idaho Power Company Main Milner Powerhouse, 1.6 miles downstream of Milner Dam, to a point 100 feet downstream of the Murtaugh Bridge "Recreational" (7 miles). Within the segment the Board prohibits construction or expansion of dams or impoundments; construction of hydropower projects; and mineral or sand and gravel extraction. Within the stream channel, alterations would be prohibited except those necessary (1) to maintain and improve existing utilities, roadways, diversion works, fishery enhancement facilities, and stream access facilities; (2) for the maintenance of private property; (3) for new diversion works; and (4) for public agencies to construct access facilities and fishery enhancement facilities. Construction of private river access facilities (i.e., boat docks) may be allowed with Idaho Water Resource Board and other regulatory agencies' approval. New diversion works are limited to pump installations that do not create an obstruction in the river; are visually blended with the surroundings so as to be less noticeable from the river; and are constructed to minimize harm to fish and wildlife.

2) Designates the Snake River from the Murtuagh Bridge to a point 100 feet upstream of the Hansen Bridge as "Natural" (9.5 miles). Within the segment the Board prohibits construction or expansion of dams or impoundments; construction of hydropower projects; construction of water diversion works; dredge or placer mining; alterations of the stream bed; and mineral or sand and gravel extraction within the stream bed.

3) Designates the Snake River from a point 100 feet upstream of Hansen Bridge to the backwaters of Twin Falls Reservoir [River Mile 619; T10S, R18E, northern boundary of Sec.10] "Recreational" (2 miles). Within the segment the Board prohibits construction or expansion of dams or impoundments; construction of hydropower projects; and mineral or sand and gravel extraction. Within the stream channel, alterations would be prohibited except those necessary (1) to maintain and improve existing utilities, roadways, diversion works, fishery enhancement facilities, and stream access facilities;

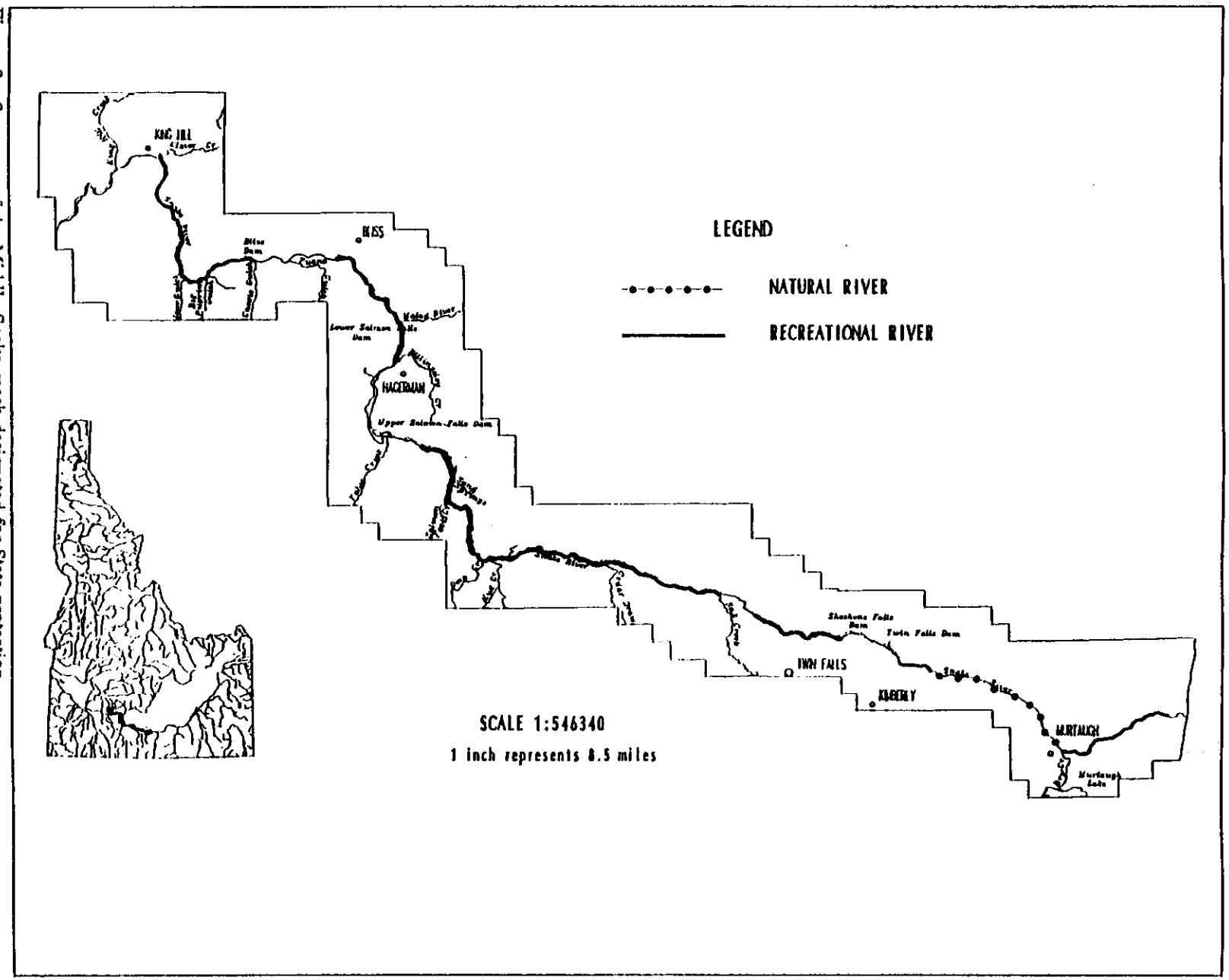


Figure 3. Segments of the Middle Snake reach designated for State protection.

(2) for the maintenance of private property; (3) for new diversion works; and (4) for public agencies to construct access facilities and fishery enhancement facilities. Construction of private river access facilities (i.e., boat docks) may be allowed with Idaho Water Resource Board and other regulatory agencies' approval. New diversion works are limited to pump installations that do not create an obstruction in the river; are visually blended with the surroundings so as to be less noticeable from the river; and are constructed to minimize harm to fish and wildlife.

4) Designates the Snake River from Shoshone Falls to River Mile 610 [Twin Falls Sewage Plant; T9S, R17E, western boundary of Sec.29] "Recreational" (4.5 miles). Within the segment the Board prohibits construction or expansion of dams or impoundments; construction of hydropower projects; and mineral or sand and gravel extraction. Within the stream channel, alterations would be prohibited except those necessary (1) to maintain and improve existing utilities, roadways, diversion works, fishery enhancement facilities, and stream access facilities; (2) for the maintenance of private property; (3) for new diversion works; and (4) for public agencies to construct access facilities and fishery enhancement facilities. Construction of private river access facilities (i.e., boat docks) may be allowed with Idaho Water Resource Board and other regulatory agencies' approval. New diversion works are limited to pump installations that do not create an obstruction in the river; are visually blended with the surroundings so as to be less noticeable from the river; and are constructed to minimize harm to fish and wildlife.

5) Designates the Snake River from Rock Creek to Highway 30 Bridge "Recreational" (23 miles). Within the segment the Board prohibits construction or expansion of dams or impoundments; construction of hydropower projects; and mineral or sand and gravel extraction. Within the stream channel, alterations would be prohibited except those necessary (1) to maintain and improve existing utilities, roadways, diversion works, fishery enhancement facilities, and stream access facilities; (2) for the maintenance of private property; (3) for new diversion works; and (4) for public agencies to construct access facilities and fishery enhancement facilities. Construction of private river access facilities (i.e., boat docks) may be allowed with Idaho Water Resource Board and other regulatory agencies' approval. New diversion works are limited to pump installations that do not create an obstruction in the river; are visually blended with the surroundings so as to be less noticeable from the river; and are constructed to minimize harm to fish and wildlife.

6) Designates the Snake River from Lower Salmon Falls Dam to the backwaters of Bliss Reservoir [River Mile 565; T6S, R12E, Sec.12] "Recreational" (8 miles). Within the segment the Board prohibits construction or expansion of dams or impoundments; construction of hydropower projects; and mineral or sand and gravel extraction. Within the stream channel, alterations would be prohibited except those necessary (1) to maintain and improve existing utilities, roadways, diversion works, fishery enhancement facilities, and stream access facilities; (2) for the maintenance of private

property; (3) for new diversion works; and (4) for public agencies to construct access facilities and fishery enhancement facilities. Construction of private river access facilities (i.e., boat docks) may be allowed with Idaho Water Resource Board and other regulatory agencies' approval. New diversion works are limited to pump installations that do not create an obstruction in the river; are visually blended with the surroundings so as to be less noticeable from the river; and are constructed to minimize harm to fish and wildlife.

7) Designates the Snake River from Bliss Dam to Clover Creek "Recreational" (12 miles). Within the segment the Board prohibits construction or expansion of dams or impoundments; construction of hydropower projects; and mineral or sand and gravel extraction. Within the stream channel, alterations would be prohibited except those necessary (1) to maintain and improve existing utilities, roadways, diversion works, fishery enhancement facilities, and stream access facilities; (2) for the maintenance of private property; (3) for new diversion works; and (4) for public agencies to construct access facilities and fishery enhancement facilities. Construction of private river access facilities (i.e., boat docks) may be allowed with Idaho Water Resource Board and other regulatory agencies' approval. New diversion works are limited to pump installations that do not create an obstruction in the river; are visually blended with the surroundings so as to be less noticeable from the river; and are constructed to minimize harm to fish and wildlife.

It is the policy of the Board to amend the water plan when it determines that amendments are in the public interest. The Board will consider proposals for amendment to the plan from private parties as well as state agencies. In the event the Board determines that a proposal will not substantially impair the values which were the basis of a protected river designation, the Board shall follow the procedures required for the adoption of the original plan (Sections 42-1734A and B, *Idaho Code*). In addition, the Board shall review and reevaluate the Comprehensive State Water Plan at least every five years (Section 42-1734B(7).

Plan Recommendations

The Middle Snake River reach receives major nutrient, sediment, bacteria, and chemical loadings from a number of sources. Studies attempting to quantify the impacts of existing impoundments, fish hatchery effluent, sewage outflows, and agricultural return flows must be supported and continued. Planning for the various uses of water requires an understanding of the water quality impacts of the different competing uses.

- The Board supports development of a Nutrient Management Plan under the direction of the Division of Environmental Quality to improve water quality of the Middle Snake reach. The

State's Water Pollution Control Account should be used to support planning, monitoring, and enforcement on the Middle Snake reach.

- The Board recommends studying methods for increasing flows during low-flow periods in the Middle Snake reach.

- The Board recommends examination of the need for additional protection of spring flows in a Snake River Plain Aquifer Plan, in light of concerns about reduced spring discharges into the Middle Snake reach, and declining ground water levels. The water quality and quantity aspects of conjunctively used stream-aquifer systems must also be understood.

It is the policy of the State of Idaho (Energy Plan, 1982) that private and public utility companies place a high priority on conservation, full development of generation at existing dams and hydropower facilities, and development of other renewable resources.

- The Board encourages the investigation of the feasibility of hydropower development on return flows not associated with natural springs in the Middle Snake reach.

- The Board supports testing and implementation of new technology to increase hydropower potential.

- The Board encourages the Idaho Public Utilities Commission to continue, through its regulatory authority to encourage energy conservation and the commercialization of cost-effective alternative energy systems.

- The Board encourages the Idaho Public Utilities Commission to investigate policies to "decouple" a utility's profits from the energy it sells and link profits to the energy the utility saves.

Local counties of the Middle Snake region have worked hard to address problems related to water quality and water supply. Intergovernmental cooperation is crucial to planning and implementation of measures to develop, improve, and conserve the water resources of the region.

- The Board encourages cooperation with local government entities in identifying water distribution and water pollution problems.

- The Board encourages counties to more forcibly address the problem of unauthorized rubbish disposal into the canyon.

RECEIVED
NOV 18 1997
Department of Water Resources
Southern Region

J-U-B ENGINEERS, INC.
ENGINEERS SURVEYORS PLANNERS
800 FALLS AVENUE
TWIN FALLS, IDAHO 83301
PHONE: 208-733-2414
FAX: 208-733-9455

RECEIVED
NOV 26 1997
Department of Water Resources

LETTER OF TRANSMITTAL

DATE: 11/14/97

TO: Mr. Allen Merritt
Idaho Dept. of Water Resources-SRO
1341 Fillmore Street, Suite 200
Twin Falls, Idaho 83301

FROM: Tracy A. Ahrens, P.E.

PROJECT: Sahko Hydroelectric Project
FERC Project No. 11060-001-Idaho

ITEM: Additional Information in response to FERC request dated July 30, 1997

Attached for your reference is a copy of the Additional Information package as prepared and submitted to the FERC in response to their request letter dated July 30, 1997.

Please call if there is any problems with this transmittal.

Respectfully,

Tracy Ahrens

MICROFILMED
NOV 06 1998

47-05271

J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

November 14, 1997

Secretary
Federal Energy Regulatory Commission
888 First St. NE
Washington, DC 20426

Re: OHL #11060-001-Idaho; Additional Information
Sahko Hydroelectric Project
Twin Falls County, Idaho
J.M. Miller Enterprises, Inc., Applicant

Dear Secretary:

On behalf of our subject client and in response to Office of Hydropower Licensing Acting Director Madden's July 30, 1997 letter, we enclose herewith additional information requested by Staff.

Copies of this material are also being transmitted to the parties consulted with in preparing this information.

Immediately following this letter are appendices which itemize the following:

A. "Description of Rerouted Ditch, Sahko Hydroelectric Project" (J-U-B ENGINEERS)

B. Agreement - Twin Falls Canal Company and James M. Miller.

C. "Exhibit G-1, Project Location Map"; Revised 9/29/97.

D. "Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project"; Revised November 14, 1997 (Brockway Engineering).

E. "Exhibit A - Description of the Project and Proposed Mode of Operation"; Revised September 1997.

F. "Power Capacity Calculations"; Revised September, 1997.

G. Tables E-1, E-2A, E-2B and E-3; Revised November 1997.

47-08271

MICROFILMED
NOV 0 6 1998

H. "Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology"; Revised November 14, 1997 (Brockway Engineering).

I. Letter(s) of Transmittal

J. (RE: Schedule A-Item 1)--Agency Response(s).

K. (Re: Schedule A - Item 2)--Agency Response(s).

L. Applicant's Consultants Response(s)

RE: Schedule A - Item 1 (A)

("*a description of the rerouted ditch and its location;*")

See **Appendix A**, "Description of Rerouted Ditch, Sahko Hydroelectric Project"

See **Appendix B** - Agreement - Twin Falls Canal Company and James M. Miller

RE: Schedule A - Item 1 (B)

("*a revised drawing for Exhibit G of your application which shows the rerouted ditch;* ")

See **Appendix C**, "Exhibit G-1, Project Location Map"

RE: Schedule A - Item 1(C)

("*revisions to the sections of your application for water quality and quantity...*")

See **Appendix D**, "Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project"

A November 3, 1997 letter of the Idaho Department of Fish and Game (IDFG) found in **Appendix J** raises concern that nutrient levels of removal may be over estimated based on sediment removals predicted using full pond volume for all scenarios.

Applicant has addressed the concerns of IDFG in the revised report of **Appendix D** (pp 3-5, Sediment Collection Basin). Table E-2 of **Appendix G** has been revised to include Tables E-2A and E-2B. Table E-3 of **Appendix G** has also been revised. In summary the estimated actual removal for the sedimentation basin and the forebay in series is nearly the same as that estimated for the constant-volume sedimentation basin.

IDFG raises concern for protection of sediment basin wetland and riparian vegetation during sediment removal operations.

Applicant considers it a priority to maintain the integrity of any wetlands and riparian vegetation that result from project construction and mitigation efforts. Applicant will make special note to any contractors responsible for sediment removal efforts of the importance of maintaining the riparian and wetland vegetation.

IDFG recommends a hardened ingress/egress point be designed into the ponds.

Applicant will provide for a graveled ingress/egress point to facilitate vehicular access for sediment removal. The report of **Appendix D** has been revised to reflect this addition.

IDFG proposes that a consultation/comment process with IDFG and USFWS be conducted prior to any vegetation removal.

Applicant contends that such a process would not be practical or appropriate to be conducted prior to sediment removal. See Item 2 of Applicant's Consultants response letter of November 14, 1997 found in **Appendix L.**

IDFG recommends an alternative to the biodegradable monofilament netting material in erosion control.

In that any fabric matting will not be subjected to high velocity flows, or be placed on slopes greater than 3:1, Applicant will use jute matting or other material acceptable to IDFG. The report of **Appendix D** has been revised to reflect this use.

IDFG recommends the use of a native grass/forb blend for revegetation and the use of willow cuttings in all riprap banks.

Applicant will incorporate IDFG's recommended species mix to the re-vegetation effort or, alternatively, choose other species acceptable to the agency. Additionally, the Applicant will incorporate willow cuttings in the riprap on the upstream face of both embankments. The report of **Appendix D** has been revised to reflect this use.

("*...to the hydraulic plant capacity and the dimensions of the forebay and sediment collection basin in Exhibit A, as needed based on the additional project flows*; ")

See **Appendix E,** "Exhibit A - Description of the Project and Proposed Mode of Operation"

See **Appendix F,** "Power Capacity Calculations"

In summary, the hydraulic capacity of the plant has not been changed from the original 20 cubic feet per second (cfs). The additional flows through the rerouted ditch will only be used to supplement the existing flows up to the capacity of the plant.

RE: Schedule A - Item 1 (D)

"*revised flow data for the project (table E-1 of the application)* "

See **Appendix G,** Table E-1 titled "Average Estimated Weekly Flow Data with Estimated Additional Flow"

RE: Schedule A - Item 1 (E)

"*revised estimates for annual sediment removal by the proposed sediment collection basin (table E-2 of the application)* "

See **Appendix G,** Table E-2 has been revised to include Tables E-2A titled "Estimated Annual Sediment Removal - Constant-Volume Basin" and E-2B titled "Estimated Annual Sediment Removal - Variable-Volume Basin"

RE: Schedule A - Item 1 (F)

(*"revised estimates for annual phosphate removal by the proposed sediment collection basin (table E-3 of the application"*)

See **Appendix G**, Table E-3 titled "Estimated Annual Phosphate Removal"

RE: Schedule A - Item 1(G)

(*"revised report on the Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology..."*)

See **Appendix H**, "Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology"

A November 3, 1997 letter of the Idaho Department of Fish and Game (IDFG) recommends that "this report address the interaction between the vegetative community and changes in the local hydrology resulting from the impoundment and diversion of water in the Kastelu Drain."

Applicant has revised the report of **Appendix H** to address these impacts which are anticipated to be "slight".

RE: Schedule A - Item 1

(*"provide" ... (Agencies List) ... "with copies of your response to items 1(A) through 1(G) "*)

The above-referenced reports (Appendix A through H) were transmitted to:

Mr. Robert A. Brochu
Walla Walla Dist. Corps of Eng.
Idaho Falls Regulatory Office Exchange Plaza
1820 E. 17th, Suite 350
Idaho Falls, Idaho 83404

Mr. John Heimer
Idaho Dept. of Fish and Game
P. O. Box 25
Boise, Idaho 83707

Mr. Carl Nellis
Idaho Dept. of Fish and Game-Region 4
868 E. Main St.
Jerome, Idaho 83338

Field Supervisor
U. S. Fish and Wildlife Service
1387 S. Vinnell Way, RM 368
Boise, Idaho 83709

Mr. Mike McMasters
Idaho Dept. of Health and Welfare-DEQ
601 Pole Line Rd, Suite 2
Twin Falls, Idaho 83301

Director Idaho Operations Office
U. S. Environmental Protection Agency
1435 N. Orchard Street
Boise, Idaho 83706

Mr. Allen Merritt
Idaho Dept. of Water Resources - SRO
1341 Fillmore Street, Suite 200
Twin Falls, Idaho 83301

Mr. Timothy J. Stover
Canyon Springs L.L.C.
Rosholt Robertson & Tucker
P. O. Box 1960
Twin Falls, Idaho 83303-1906

See Appendix I for letters of transmittal.

See Appendix J for agency responses thereto.

An October 17, 1997 letter of the Idaho Department of Health and Welfare Division of Environmental Quality concludes that "DEQ is in support of this project as water quality is improved by the reduction in flow velocity allowing sediment to drop out prior to deposition in the Snake River".

A November 3, 1997 letter of the Idaho Fish and Game (IDFG) provided comments on two of the reports submitted to them for review: "Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project" and "Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology". The IDFG comments have been addressed under the appropriate section of this response: Schedule A - Item 1(C) and Schedule A - Item 1(G).

RE: Schedule A - Item 2

("*Appendix 5 of your application shows that you have a permit to appropriate up to 20.05 cfs of water to operate the project. Please submit documentation that you have requested a permit to appropriate the additional water you plan to use for the project, and any response received to your request.*")

See **Appendix A**, "Description of Rerouted Ditch, Sahko Hydroelectric Project" (page 2, last paragraph)

In summary, the hydraulic capacity of the plant has not been changed from the original 20 cubic feet per second (cfs). The additional flows through the rerouted ditch will only be used to supplement the existing flows up to the capacity of the plant. The current permitted use of 20 cfs for power still matches the hydraulic capacity of the plant and thus a permit to appropriate additional water is not required.

See **Appendix K** (RE: Schedule A-Item 2) - Agency Response(s)

An October 7, 1997 response letter from State of Idaho Department of Water Resources recommends "*that the permit holder amend permit 47-08271 to include the currently proposed additional point of diversion within the SW1/4 NW1/4, Section 13, Twp. 09S, Rge 15E, B.M. or that a new application be filed to cover this diversion.*"

See **Appendix L**, a November 14, 1997 letter of the Applicant's consultant (Brockway Engineering) responding to IDWR's comments. In summary Brockway Engineering has determined that no amendment to the water right permit for the addition of a point of diversion is required.

If you have any questions concerning this material, please do not hesitate to contact me.

Sincerely,

D. W. "Bill" Block, VP

J-U-B ENGINEERS, Inc.

Agent for the Applicant

Enc.

Cc: J. M. Miller Enterprises, Inc.

Consulted Agencies

APPENDICES

A. "Description of Rerouted Ditch, Sahko Hydroelectric Project" (J-U-B ENGINEERS)

B. Agreement - Twin Falls Canal Company and James M. Miller.

C. "Exhibit G-1, Project Location Map"; Revised 9/29/97.

D. "Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project"; Revised November 14, 1997 (Brockway Engineering).

E. "Exhibit A - Description of the Project and Proposed Mode of Operation"; Revised September 1997.

F. "Power Capacity Calculations"; Revised September, 1997.

G. Tables E-1, E-2A, E-2B and E-3; Revised November 1997.

H. "Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology"; Revised November 14, 1997 (Brockway Engineering).

I. Letter(s) of Transmittal

J. (RE: Schedule A-Item 1)--Agency Response(s).

K. (Re: Schedule A - Item 2)--Agency Response(s).

L. Applicant's Consultants Response(s).

APPENDIX A

"Description of Rerouted Ditch, Sahko Hydroelectric Project"
(J-U-B ENGINEERS)

Description of Rerouted Ditch
Sahko Hydroelectric Project

Twin Falls County, Idaho

September 30, 1997

Response to Item 1(A) of the FERC request for additional information (dated July 30, 1997).

An existing irrigation return flow waste ditch was rerouted in 1993 such that the flows pass through the Kastelu drainage. Through an agreement with the Twin Falls Canal Company the ditch was rerouted to the south edge of the existing field in order to be less obstructive to farm work on the property. In addition the relocated ditch takes advantage of a gentler channel slope that provides slower moving water and thus acts as a natural sedimentation basin and improves the water quality prior to the waste flow entering the Snake River. In approximately three years of use the farm operation has removed an estimated 3,700 cubic yards of sediments from the first two-thirds of the length of the slow moving rerouted ditch. The rerouted ditch will also take advantage of the proposed sedimentation basin in the Kastelu drainage thus further improving its water quality. Flows in the waste ditch are from irrigation only and will only flow during the Twin Falls Canal Company irrigation season.

The original waste ditch ran from the northwest corner of the N1/2 of Section 13, T9S R15E Boise Meridian northward to the Snake River Canyon. The rerouted waste ditch carries the flows from the northwest corner of the N1/2 of Section 13 east along the south edge of the N1/2 of Section 13 approximately 4,600 feet. The flow then

enters two parallel 12" diameter pipes that carry the flows north approximately 300 feet to the Kastelu drainage. The flows are diverted to the rerouted ditch by simple ditch check structures. The rerouted waste ditch is shown on the revised Exhibit G drawing.

Flows in the waste ditch were diverted for part of the past season and monitored using a weir and continuous electronic recorder. The flow was measured downstream of all diversions for irrigation, so it represents the amount actually available for hydropower production. Average monthly discharge was computed from daily flows and combined with the 1991 measured flows for the Kastelu drainage. However, the 1997 water year was one of the wettest on record (the Twin Falls Canal Company system was operating close to capacity for most of the summer), while 1991 was close to a normal year. Therefore, an adjustment has been made to the waste ditch data: during a normal year, it is estimated that the flow in the waste ditch will be 75% of the measured 1997 flows. The resulting waste ditch flow data has been incorporated into the project.

The estimated hydraulic capacity of the plant has not been changed and is still projected as 20 cubic feet per second (cfs). The size of the project features have therefore not been changed. The flows from the rerouted ditch will not increase the capacity but only supplement the existing flows. Excess flow beyond the capacity of the project will pass over the intake structure spillway and down the existing Kastelu drainage.

APPENDIX B

Agreement - Twin Falls Canal Company and James M. Miller

AGREEMENT

This Agreement made and entered into 31st day of MARCH, 1993, by and between TWIN FALLS CANAL COMPANY, an Idaho Corporation (hereinafter TFCC), and James M. Miller (hereinafter Miller).

WHEREAS, Miller wishes to relocate approximately 4600 feet of TFCC's Lateral 39, 2LL and to construct a silt pond as shown on Exhibit A hereto in the N 1/2 Section 13, T9S, R15E, Boise Meridian, Twin Falls County, Idaho: and

WHEREAS the parties wish to delineate their agreement in writing;

NOW THEREFORE, in consideration of the mutual covenants and promises herein contained and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. TFCC'S PERMISSION. TFCC hereby grants permission to Miller to relocate approximately 4600 feet of Lateral 39, 2LL, and to construct a silt pond within the property of Miller in the N 1/2, Section 13, T9S, R15E, Boise, Meridian, Twin Falls County, Idaho A sketch of the property and the lateral relocation and silt pond location is Exhibit A hereto. All work shall be accomplished so as not to interfere with TFCC's water deliveries.

2. SPECIFICATIONS FOR LATERAL AND SILT POND. Miller will relocate and construct approximately 4,600 feet of lateral to a depth and width necessary to convey water deliveries and/or waste water. Miller agrees to construct a silt pond of a size and depth necessary for silt removal. Miller and TFCC agree that there is no intent to establish a wetland.

3. EASEMENTS. Miller hereby grants to TFCC an easement for the new location of Lateral 39 through the property of Miller. In exchange TFCC hereby abandons all claims to an easement along the present location of Lateral 39. Miller hereby grants TFCC right to egress and ingress said easment. Miller shall furnish TFCC with an as-built location of the lateral relocation following installation.

4 FUTURE MAINTENANCE Miller agrees to hereafter maintain that portion of the relocated Lateral 39, 2LL and the silt pond pursuant to this Agreement. In the event that there is a future failure of the lateral or water deliveries are impeded for whatever reason, Miller shall rectify the problem as soon as possible following observation by Miller or notice, either oral or written by TFCC. In the event that Miller does not restore the operation of the system so that irrigation water can be delivered, TFCC reserves the right to rectify the problem. In such event, Miller agrees to be responsible for all costs of repairing the system, and to pay said costs within thirty (30) days after billed by TFCC.

5. INDEMNIFICATION Miller agrees to hold harmless and indemnify TFCC against any claim or claims of any third party, including member stockholders of TFCC, who could be or in any way are injured or damaged by reason of a claim or claims arising out of the construction, operation, or the failure of lateral, including damages from flooding or crop loss claims.

6. COVENANT RUNNING WITH THE LAND In consideration for TFCC's agreement hereunder, Miller acknowledges that the responsibilities it assumes pursuant to this Agreement shall constitute a covenant running with the land for the benefit of TFCC, and shall be binding upon the successors and assigns of Miller

7. BINDING UPON SUCCESSORS AND ASSIGNS. This Agreement shall be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF this Agreement has been executed in duplicate the day and year first above written.

TWIN FALLS CANAL COMPANY

By: Robert W. Schaer
Robert W. Schaer, President

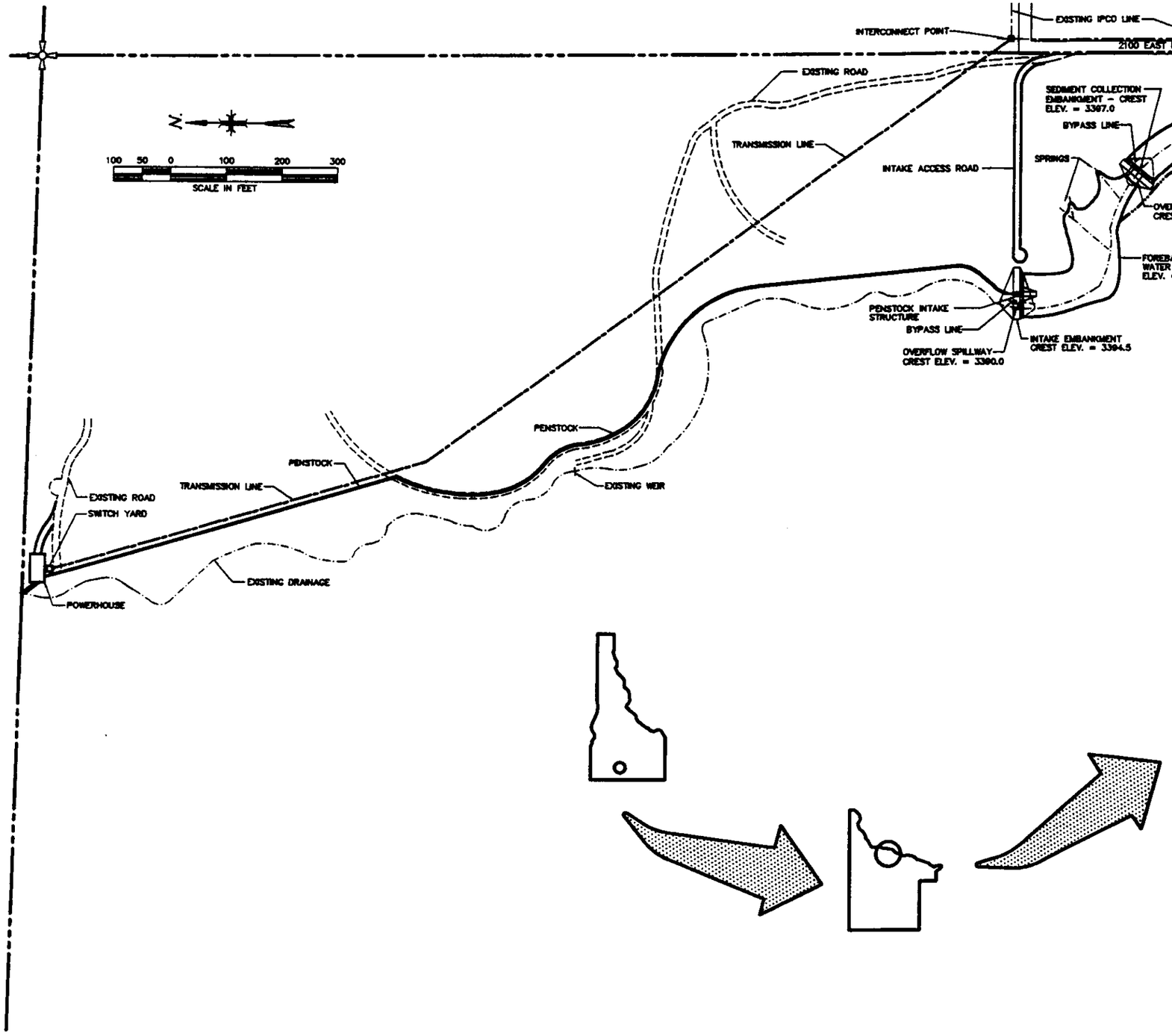
TWIN FALLS CANAL COMPANY

By:
Authorized Representative

By: James M. Miller
James M. Miller

APPENDIX C

"Exhibit G-1, Project Location Map"
Revised 9/29/97



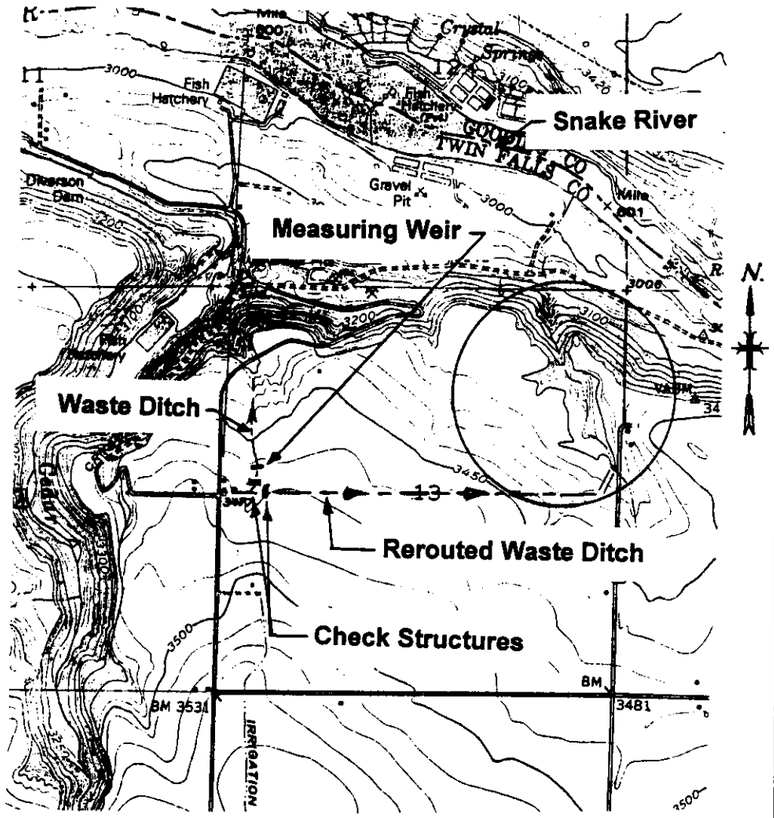


EXHIBIT G-1
PROJECT LOCATION MAP
SAHKO HYDROELECTRIC PROJECT TWIN FALLS COUNTY, IDAHO J. M. MILLER ENTERPRISES, INC., APPLICANT

REVISED 9-29-97
REVISED 6-30-94
REVISED 3-16-93

APPENDIX D

"Site Geology and Erosion and Sediment Control Plan
for the Sahko Hydropower Project"
Revised November 14, 1997
(Brockway Engineering)

Revised 11/14/97

Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project

Twin Falls County, Idaho

Brockway Engineering, PLLC

September 30, 1997

GEOLOGY OF THE PROJECT SITE
(Response to item 1.a. of the FERC request for additional information dated June 5, 1996)

The geology of the project area is characterized by loessal silt loam soils overlying basalt flows of the Snake River Group. The soils are highly erodible but highly productive agricultural soils. Irrigation has been practiced for approximately 80 years on the tract and significant erosion has taken place.

In the immediate area of the project there are four predominant soils (see the NRCS soils map given in Figure 1 and the soil descriptions in Table 1). The soils are delineated on preliminary soil classification maps by the Natural Resources Conservation Service as the MeC unit of the Minveno soil, the BhB slope unit of the Bahem soil, the SIB member of the Sluka soil, and rock outcrops and xerothents mapped as QMD on the NRCS soils map. The Sluka, Minveno, and Bahem soils are all silt loam soils with 2-8% slope. The Sluka and Minveno soils

generally include hardpan (generally silicic concretions) from 20 to 40 inches whereas the Bahem soil has depths of more than 60 inches. Immediately adjacent to the stream, the soils are xerorthents with shallow depths over basalt with the QMD map unit designation.

The basalt rock is generally overlain by a layer of relatively low permeability fine-grained material which impedes downward movement of percolating water and can result in surface seeps from percolation of irrigation water from areas up-gradient. This is the case in and adjacent to the Kastelu Drain in the project area resulting in the wetlands defined in the wetlands delineation study by Montgomery and Watson and the more recent wetlands study by Brockway Engineering.

The proposed project would not affect the irrigated soils in the area and would reduce the conveyance of sediment from irrigated areas to the Snake River. In the ponded areas of the project (sediment basin and forebay), some soils would be inundated and some would be excavated and used for wetlands as outlined in the wetlands mitigation plan. A total of 1.1 acres would be affected in the immediate area of the impoundments and approximately 0.25 acres of the QMD unit disturbed in the pipeline and powerhouse area construction would be reseeded.

EROSION AND SEDIMENT CONTROL PLAN
(Response to item 1.b. and item 4. of the FERC request for additional information dated June 5, 1996; revised to reflect additional inflow)

Surface runoff from the Twin Falls tract degrades the water quality of the irrigation return flow drains. Eroded topsoil and nutrients from agricultural activities are collected in the numerous drains which eventually flow into the Snake River. The Kastelu Drain in particular is a significant contributor to the sediment and phosphorous load in the Snake River. As indicated above, the total sediment load contributed by the drain during the irrigation season (not including additional inflow from Lateral 39) is approximately 4029 tons per year, while the phosphorous load is approximately 3.55 tons per year, based on data collected throughout 1990 - 1991.

SEDIMENT COLLECTION BASIN

The primary sediment control measure will be a detention basin designed to remove most of the sediment and phosphorous from the water flowing in the drain. It is proposed to construct the sedimentation basin with a surface area of 0.57 acres, and an estimated average depth of 4.5 feet (after removal of soil for the wetland mitigation plan – see below), for a total volume of 2.57 acre-feet or 111,730 cubic feet. Detention times for a basin of this size at various inflow rates are given in the following table. Sediment removal rates are based on water quality monitoring of Twin Falls Canal Company ponds and basins for the period 1991-1995 (University of Idaho data).

Average depth =	4.5 feet	Poly ft (2nd order):	c1 = -0.0392
Estimate volume =	2.565 acre-feet		c2 = -0.3023
	111731 cubic feet		c3 = 81.94

Discharge (cfs)	Detention time (hrs)	Estimated % sediment removal	Fitted % sediment removal
1	31.0	82	81.6
2	15.5	81	81.2
5	6.2	79	79.4
10	3.1	75	75.0
15	2.1	69	68.6
20	1.6	60	60.2

Typically, the average weekly Kastelu Drain discharge during the irrigation season, with the addition of flow from the west irrigation ditch, will range from 4 to 22 cfs, with peak discharges close to 25 cfs. The maximum daily discharge is expected to be 25 cfs. At 10 cfs, the detention time is 3.1 hours, which is sufficient to achieve approximately 75% removal of sediment. During periods when the sediment load and/or the discharge is high, the removal rate may drop below 50%.

A sediment removal analysis was performed for two cases: 1) assuming a constant-volume pond, and 2) assuming a pond which decreases in volume as sedimentation occurs. For the constant-volume case, the sediment removal rate is 62%, or 3537 tons of sediment removed (Table E-2A). For the variable-volume case, the removal rate is 49%, or 2760 tons removed (Table E-2B). However, the variable-volume rate is artificially low, because it does not account for the effect of the forebay on sediment removal. As the sediment basin volume

decreases, the detention time decreases and larger particles are not able to be removed. These particles will be discharged into the head of the forebay. Since the forebay volume will be larger than the usable volume of the sediment basin, the forebay will remove some of the load discharged from the sediment basin. It can be shown that the net effect of the two basins in series will be nearly the same as the constant-volume single-basin case, or 62%, assuming the sediment basin is cleaned once a year.

Phosphorous removal will also be accomplished by the sediment basin and the forebay. Because phosphorous is adsorbed largely to the finer particulates which are not removed, and because some phosphorous occurs in dissolved orthophosphate form, the annual removal rate for this nutrient is expected to average 18% (Table E-3).

Removing approximately one-half of the sediment load has significant implications for the water quality of the Snake River. Reducing the annual sediment load to 2105 tons from 5642 tons, and reducing the annual phosphorous load to 4.10 tons from from 5.00 tons would significantly improve the water quality of the Snake River, which has been degraded in part by high sediment and nutrient loads from irrigation return flows.

SEDIMENT REMOVAL AND TRANSPORTATION PLAN

Based on measured sediment loads in the Kastelu Drain and the expected rate of sediment removal in the detention basin, the basin will accumulate

approximately 2760 tons of sediment per year, which corresponds to 55,200 cubic feet of a soil weighing 100 lbs/ft^3. Assuming this sediment is distributed evenly throughout the basin, the depth of sediment accumulation each year will be approximately 2.22 feet. Similarly, the depth of accumulation in the forebay will be approximately 0.5 feet per year.

An agreement will be reached between the applicant and the Twin Falls Canal Company (TFCC) for removal and transport of the accumulated sediment every year or every two years, depending on the accumulated sediment. The TFCC is interested in acquiring material of this type, and will utilize the sediment for their ongoing construction projects, or for topsoil replacement on agricultural fields. Therefore, no sediment disposal site will be located in or near the project site.

Sediment removal from the collection basin will take place according to the following procedure:

1) Dewater the sediment collection basin via the bypass pipe through the embankment
2) Divert the flow in the Kastelu Drain into the bypass ditch and around the basin
3) Access the sediment basin at the points shown on Figure 2 via gravel access ramps, and removal sediment via a long-boom backhoe. This

equipment is able to reach across the entire width of the basin, so that no entry into the basin area will be necessary.

4) Transport the sediment off the project site to fill various needs at the discretion of TFCC.

This sediment removal procedure will result in no impact on the water quality in the Kastelu Drain. Typically, sediment removal will take place during low flow periods, and all flow will be bypassed around the basin.

Since some sediment will remain in the outflow from the sediment basin, the forebay will encounter minor deposition. This deposition will be removed approximately every five years, under a similar agreement with the Twin Falls Canal Company. The forebay sediment will be removed during low flow periods according to the following plan:

1) Draw down the water level in the sedimentation basin to the minimum level and simultaneously dewater the forebay via the bypass pipes through the embankments.
2) With the forebay dewatered, but the drain still flowing, remove sediment from the east portion of the forebay (away from the thalweg of the drain) by accessing at the locations shown on Figure 2 via gravel access ramps.
3) Close the bypass pipe through the sediment basin embankment and allow the sediment basin to begin filling.

4) Enter the forebay area and removing the remaining sediment using a rubber-tired backhoe or front-end loader (the drain is dry at this point).

5) Transport the sediment off the project site to fill various needs at the discretion of TFCC.

By following this procedure, no additional sediment will enter the drain from the forebay impoundment.

EROSION CONTROL MEASURES

In order to prevent surface erosion and subsequent sediment inflow to the Kastelu Drain both during and after construction, the following control measures will be implemented.

1) For the construction of the sediment collection basin, a bypass ditch will be employed as shown on Figure 2 to divert the water in the Kastelu Drain. This will prevent introduction of sediment into the drain from the embankment placement and other necessary fill or excavation. This ditch will also be used in the periodic sediment removal plan described above. No coffer dams will be employed.

2) For the construction of the forebay, a bypass ditch will be constructed to locally bypass the embankment to prevent sediment input to the drain during the placement of the embankment. This ditch will be for construction purposes only. No coffer dams will be employed.

2) Silt fences will be located during and after construction at the locations shown on the drawing. The fences will prevent surface runoff from the disturbed areas of the project from entering the drain, and will also protect the two springs from sediment intrusion. The disturbed areas which pose a threat to water quality include the intake access road and the two impoundment embankments. Construction of the bypass ditch does not pose a threat, since no disturbed slope will be created. The fences will remain at these locations until vegetation has been established sufficiently to stabilize the slopes. Approximately 580 feet of fencing will be installed, at an estimated cost of $1740.

3) Erosion control matting will be placed on the slopes of the impoundment embankments. The erosion mat will be a straw and coconut fiber matting bound with jute netting and designed for installation on 3:1 slopes. This matting will provide additional erosion control while allowing the vegetation growth to occur through the matting fibers. The approximate required areas of matting are 5,550 ft^2 for the impoundment embankments or 617 yd^2. The estimated cost for this matting is $500.

4) Disturbed areas will be re-seeded with a mixture of native grasses as recommended by Idaho Fish & Game, according to the following specification or a mixture which will provide equivalent stabilization characteristics:

Species	% in mixture
Idaho fescue	25%
Indian rice grass	25%
Western wheat grass	25%
Blue-bunch wheat grass	25%

Total applied: 29 pound per acre of mixture

Should any of these species be unavailable, one or more of the following species, as recommended by the Natural Resources Conservation Service, will be substituted: Smooth brome, Hard fescue, or Alfalfa.

Approximately 0.58 acres will be re-seeded, which includes the impoundment embankments, the disturbed penstock trench area, and the powerhouse area. The estimated cost for this revegetation is $2505, which is itemized in Table 2. The revegetation plan will be implemented as soon as practicable after construction is complete so that the risk of erosion is minimized. If a significant precipitation event occurs before revegetation is complete, the silt fences will prevent sediment inflow to the drain. The revegetated areas will be monitored after the project is complete to ensure that slope stabilization is adequately accomplished. Additional revegetation will be implemented as necessary.

In addition to the above measures, erosion control provisions for all areas of the impoundment embankments which may experience high velocities. The overflow spillway at the forebay embankment will be concrete, with a rip-rap toe blanket on the downstream outlet to protect the toe of the embankment. The outlet of the sedimentation basin will be a spillway consisting of a rip-rap approach section, a concrete section at the crest, and rip-rap along the downstream face and toe of the embankment. Rip-rap is also planned for the upstream face of both embankments, with willow cuttings extending to

permanent moisture incorporated into this rip-rap. These measures will prevent erosion of the embankment and introduction of sediment into the Kastelu Drain.

All erosion control features are detailed on Figure 2 with respect to the project facilities and the existing drain.

Table 1. Soil unit descriptions for the Sahko Hydropower project site.

	SIB - Sluka	MeA - Minveno	BhB - Bahem	QMD - rock
Surface texture	Silt loam	Silt loam	Silt loam	Variable
Subsurface texture	Silt loam	Silt loam	Silt loam	Variable
Limiting factors	Soil depth	Soil depth, soil reaction	Soil reaction, slope	Variable
Water holding capacity	3.0 to 6.0 in.	2.0 to 4.0 in.	10.0 to 11.0 in.	Variable
Slope	1 to 4%	0 to 2%	1 to 4%	30 to 90%

Table 2. Cost estimate for the non-wetlands revegetation plan for the Sahko Hydropower project

Item	Qty	Unit	Unit cost	Cost
Forebay embankment	3600	sq. ft.	$0.10	$360
Sediment basin embankment	1950	sq. ft.	$0.10	$195
Penstock trench	10800	sq. ft.	$0.10	$1,080
Powerhouse area	8700	sq. ft.	$0.10	$870
TOTAL COST				$2,505

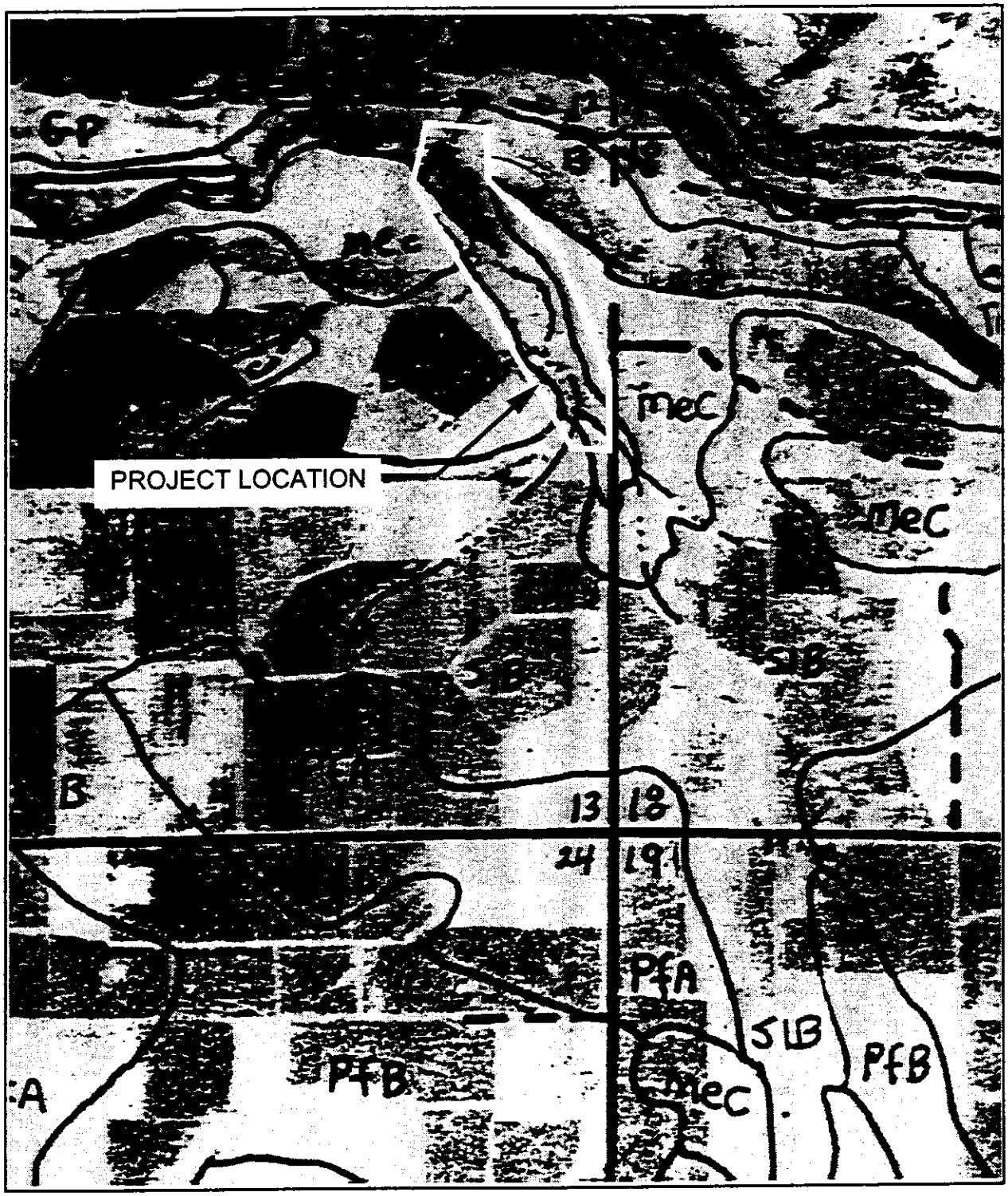
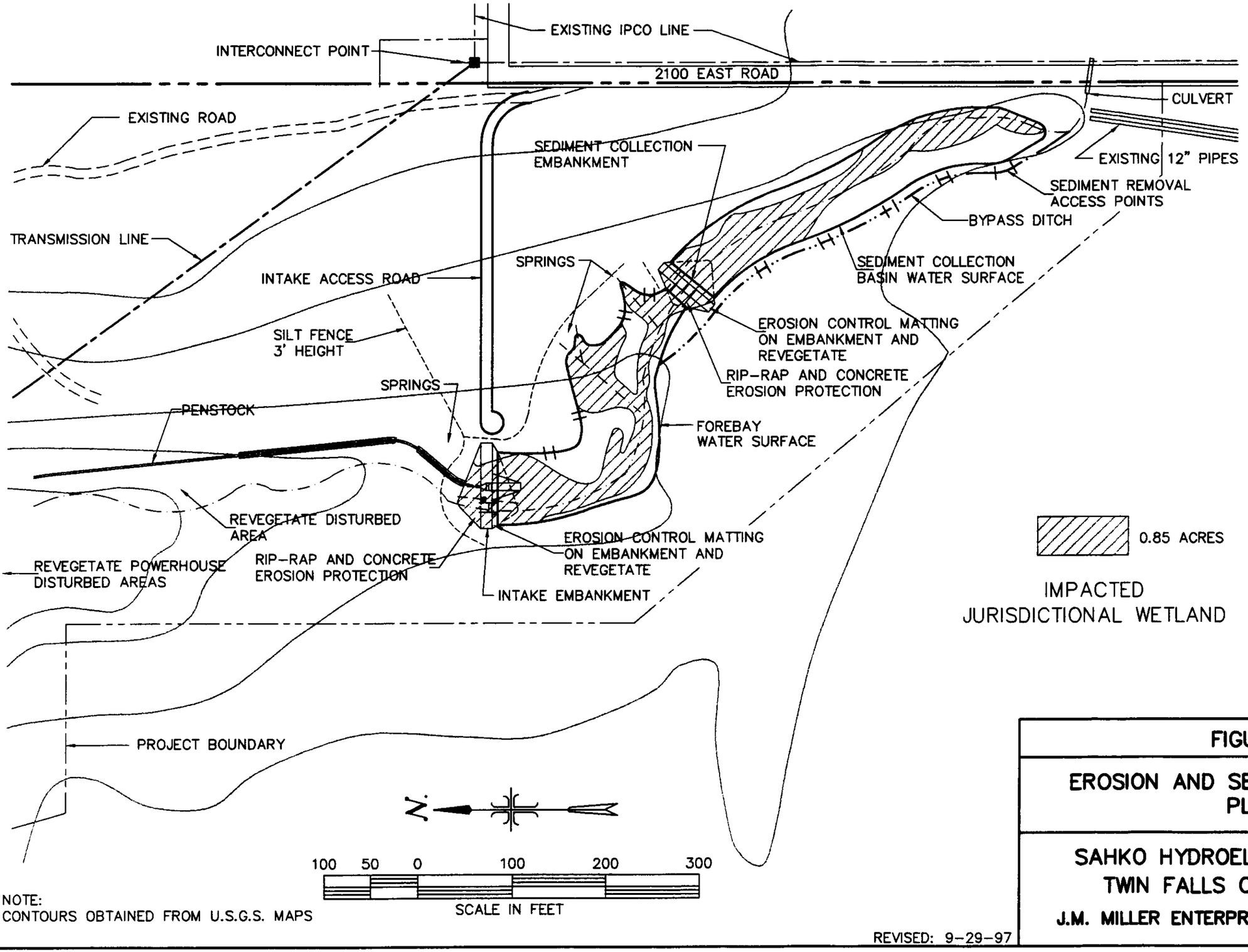


Figure 1. Soil unit map in the Sahko Hydropower project vicinity. Source: Natural Resources Conservation Service.



NOTE:
CONTOURS OBTAINED FROM U.S.G.S. MAPS

REVISED: 9-29-97

FIGURE 2

EROSION AND SEDIMENT CONTROL PLAN

SAHKO HYDROELECTRIC PROJECT
TWIN FALLS COUNTY, IDAHO
J.M. MILLER ENTERPRISES, INC., APPLICANT

APPENDIX E

"Exhibit A - Description of the Project and
Proposed Mode of Operation"
Revised September 1997

EXHIBIT A

DESCRIPTION OF THE PROJECT

AND

PROPOSED MODE OF OPERATION

REVISED SEPTEMBER 1997

4.61(C)

EXHIBIT A

DESCRIPTION OF PROJECT AND PROPOSED MODE OF OPERATION

(1) Project Data

(i)	Number of Generating Units	One
	Auxiliary Units	None
	Capacity of Unit	500 kW
	Total Installed Capacity	500 kW
	Provisions for Future Units	None
(ii)	Hydraulic Turbine Type	Pelton (4 nozzle)
(iii)	Mode of Operation	Run-of-ditch
(iv)	Estimated average annual energy generation	1,856,000 kWh
(v)	Estimated average head	328 ft.
(vi)	Intake Forebay	
	Surface Area	0.6 acres
	Volume	3 acre-ft.
	Normal Surface Elevation	3390 ft. msl
(vii)	Sediment Collection Basin	
	Surface Area	0.6 acres
	Volume	2.6 acre-ft.
	Normal Surface Elevation	3393.5 msl

Exhibit A
(cont'd.)

(viii) Estimated hydraulic capacity of plant (cfs) — 20 cfs

(ix) Sizes, Capacities, and Construction Materials

	Forebay	Sediment Collection
Embankments		
Construction	Earth-fill	Earth-fill
Elevation (stream invert)	3381 ft. msl	3387.5 ft. msl
Elevation (crest)	3394.5 ft. msl	3397 ft. msl
Length (crest)	110 ft.	80 ft.
Width (crest)	12 ft.	12 ft.
Slope (upstream	3:1	3:1
Slope (downstream)	2:1	2:1
Intake Structure		
Construction		Concrete
Elevation (floor)		3384 ft. msl
Dimensions (w x l x h)		8 ft. x 10 ft. x 10.5 ft.
Pipeline/Penstock		
Material		Steel
Diameter		24 in.
Length		1,950 ft.
Powerhouse		
Construction		Masonry-block
Elevation (floor)		3054 ft. msl
Dimensions (w x l)		25 ft. x 50 ft.
Tailrace		
Construction		Rock Rip rap
Elevation (Tailwater)		3051 ft. msl
Dimensions (w x l x h)		6 ft.x3ft.x30ft.(l)

Exhibit A
(cont'd.)

Switchyard

Dimensions	12 ft. x 12 ft.

Primary Transmission

Voltage	34.5 kV
Length	2,000 ft.

(x) Estimated Project Cost $390,000 (1992)

(2) Propose of Project:

Irrigation water supplement; develop renewable resource energy for sale to the Idaho Power Company in order to help defray electrical costs of proposed powered irrigation system.

APPENDIX F

"Power Capacity Calculations"
Revised September, 1997

POWER CAPACITY CALCULATIONS

Revised: September, 1997

PROGRAM FOR OPTIMUM POWER CAPACITY CALCULATION

Sahko Hydro Project	Max Eff =	0.80		Qd =	15.0 cfs	Qmin =	1.5 cfs
FERC #11060-001-Idaho	Qas =	16.0 cfs		Hd =	328.0 Ft	Qmax =	20 cfs
file:SAHKPWR2	Qaw =	2.5 cfs		Pd =	333.1 KW		
Revised: September 1997	Qis =	0.50 cfs					

AVERAGE ANNUAL ENERGY:

Oct-Feb	321,238	KWH
Mar-May	299,435	KWH
Jun-Sep	1,235,589	KWH
Total Energy:	1,856,263	KWH/Yr

AVERAGE ANNUAL CAPACITY: 211.9 KW

Qas =	Average Annual Flow (cfs) - May thru October
Qaw =	Average Annual Flow (cfs) - November thru April
* Q/Qa ratio =	Exceedance curve ratio - Actual flow/average flow
Qi =	Anticipated Flow at the Weir (cfs)
Qis =	Estimated Flow Below Project not Captured (cfs)
Qp =	Anticipated Flow Captured by the Project
Qd =	Design Flow (cfs)
Hd =	Design Head (Ft)
Pi =	Estimated Power Generation of the Project (KW)
Pd =	Power Generation at Design Flow (KW)
Ei =	Estimated Energy Produced by the Project (KWH)

*Exceedance curves for each month were developed from actual daily flows from an adjacent hydroelectric project with very similar drainage characteristics. The exceedance curves were correlated to the actual flows recorded for the Kastelu drainage and used in this model (Qi/Qa ratio).

	OCTOBER	Qi					
EXCEEDANCE %	Q/Qa ratio*	Qas*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Oct KWH
100	0.454	7.26	6.76	6.76	0.80	150.2	0.0
90	0.845	13.52	13.02	13.02	0.80	289.2	16,344.9
80	1.212	19.39	18.89	18.89	0.80	419.6	26,364.6
70	1.412	22.59	22.09	20.00	0.80	444.2	32,131.3
60	1.494	23.90	23.40	20.00	0.80	444.2	33,046.7
50	1.551	24.82	24.32	20.00	0.80	444.2	33,046.7
40	1.620	25.92	25.42	20.00	0.80	444.2	33,046.7
30	1.660	26.56	26.06	20.00	0.80	444.2	33,046.7
20	1.697	27.15	26.65	20.00	0.80	444.2	33,046.7
10	1.730	27.68	27.18	20.00	0.80	444.2	33,046.7
0	1.806	28.90	28.40	20.00	0.80	444.2	33,046.7
						Total	306,167.3 KWH

	NOVEMBER	Qi					
EXCEEDANCE %	Q/Qa ratio*	Qaw*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Nov KWH
100	0.567	1.42	0.92	0.00	0.80	0.0	0.0
90	0.742	1.86	1.36	0.00	0.80	0.0	0.0
80	0.760	1.90	1.40	0.00	0.80	0.0	0.0
70	0.771	1.93	1.43	0.00	0.80	0.0	0.0
60	0.785	1.96	1.46	0.00	0.80	0.0	0.0
50	0.796	1.99	1.49	0.00	0.80	0.0	0.0
40	0.811	2.03	1.53	1.53	0.80	33.9	1,221.3
30	0.833	2.08	1.58	1.58	0.80	35.1	2,486.5
20	0.844	2.11	1.61	1.61	0.80	35.8	2,552.5
10	0.898	2.25	1.75	1.75	0.80	38.8	2,682.4
0	1.858	4.65	4.15	4.15	0.80	92.1	4,709.1
						Total	13,651.7 KWH

DECEMBER

EXCEEDANCE %	Q/Qa ratio*	Qi Qaw*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Dec KWH
100	0.611	1.53	1.03	0.00	0.80	0.0	0.0
90	0.657	1.64	1.14	0.00	0.80	0.0	0.0
80	0.677	1.69	1.19	0.00	0.80	0.0	0.0
70	0.691	1.73	1.23	0.00	0.80	0.0	0.0
60	0.698	1.75	1.25	0.00	0.80	0.0	0.0
50	0.709	1.77	1.27	0.00	0.80	0.0	0.0
40	0.722	1.81	1.31	0.00	0.80	0.0	0.0
30	0.742	1.86	1.36	0.00	0.80	0.0	0.0
20	0.749	1.87	1.37	0.00	0.80	0.0	0.0
10	0.768	1.92	1.42	0.00	0.80	0.0	0.0
0	0.887	2.22	1.72	1.72	0.80	38.1	1,418.9
						Total	1,418.9 KWH

JANUARY

EXCEEDANCE %	Q/Qa ratio*	Qi Qaw*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Jan KWH
100	0.240	0.60	0.10	0.00	0.80	0.0	0.0
90	0.512	1.28	0.78	0.00	0.80	0.0	0.0
80	0.563	1.41	0.91	0.00	0.80	0.0	0.0
70	0.585	1.46	0.96	0.00	0.80	0.0	0.0
60	0.600	1.50	1.00	0.00	0.80	0.0	0.0
50	0.614	1.54	1.04	0.00	0.80	0.0	0.0
40	0.633	1.58	1.08	0.00	0.80	0.0	0.0
30	0.647	1.62	1.12	0.00	0.80	0.0	0.0
20	0.662	1.66	1.16	0.00	0.80	0.0	0.0
10	0.674	1.69	1.19	0.00	0.80	0.0	0.0
0	0.756	1.89	1.39	0.00	0.80	0.0	0.0
						Total	0.0 KWH

FEBRUARY

EXCEEDANCE %	Q/Qa ratio*	Qi Qaw*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Feb KWH
100	0.229	0.57	0.07	0.00	0.80	0.0	0.0
90	0.433	1.08	0.58	0.00	0.80	0.0	0.0
80	0.454	1.14	0.64	0.00	0.80	0.0	0.0
70	0.479	1.20	0.70	0.00	0.80	0.0	0.0
60	0.498	1.25	0.75	0.00	0.80	0.0	0.0
50	0.527	1.32	0.82	0.00	0.80	0.0	0.0
40	0.542	1.36	0.86	0.00	0.80	0.0	0.0
30	0.552	1.38	0.88	0.00	0.80	0.0	0.0
20	0.579	1.45	0.95	0.00	0.80	0.0	0.0
10	0.618	1.55	1.05	0.00	0.80	0.0	0.0
0	0.702	1.76	1.26	0.00	0.80	0.0	0.0
						Total	0.0 KWH

MARCH

EXCEEDANCE %	Q/Qa ratio*	Qi Qaw*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Mar KWH
100	0.160	0.40	-0.10	0.00	0.80	0.0	0.0
90	0.383	0.96	0.46	0.00	0.80	0.0	0.0
80	0.399	1.00	0.50	0.00	0.80	0.0	0.0
70	0.411	1.03	0.53	0.00	0.80	0.0	0.0
60	0.418	1.05	0.55	0.00	0.80	0.0	0.0
50	0.433	1.08	0.58	0.00	0.80	0.0	0.0
40	0.454	1.14	0.64	0.00	0.80	0.0	0.0
30	0.468	1.17	0.67	0.00	0.80	0.0	0.0
20	0.496	1.24	0.74	0.00	0.80	0.0	0.0
10	0.562	1.41	0.91	0.00	0.80	0.0	0.0
0	0.662	1.66	1.16	0.00	0.80	0.0	0.0
						Total	0.0 KWH

EXCEEDANCE %	APRIL Q/Qa ratio*	Qi Qaw*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Apr KWH
100	0.192	0.48	-0.02	0.00	0.80	0.0	0.0
90	0.338	0.85	0.35	0.00	0.80	0.0	0.0
80	0.363	0.91	0.41	0.00	0.80	0.0	0.0
70	0.393	0.98	0.48	0.00	0.80	0.0	0.0
60	0.498	1.25	0.75	0.00	0.80	0.0	0.0
50	0.722	1.81	1.31	0.00	0.80	0.0	0.0
40	0.848	2.12	1.62	1.62	0.80	36.0	1,295.2
30	0.925	2.31	1.81	1.81	0.80	40.3	2,744.3
20	0.981	2.45	1.95	1.95	0.80	43.4	3,010.2
10	1.093	2.73	2.23	2.23	0.80	49.6	3,346.0
0	1.435	3.59	3.09	3.09	0.80	68.6	4,253.4
						Total	14,649.1 KWH

EXCEEDANCE %	MAY Q/Qa ratio*	Qi Qas*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for May KWH
100	0.447	7.15	6.65	6.7	0.80	147.7	0.0
90	0.858	13.73	13.23	13.2	0.80	293.8	16,424.2
80	1.002	16.03	15.53	15.5	0.80	344.9	23,760.5
70	1.052	16.83	16.33	16.3	0.80	362.7	26,325.0
60	1.113	17.81	17.31	17.3	0.80	384.4	27,792.2
50	1.156	18.50	18.00	18.0	0.80	399.7	29,167.0
40	1.219	19.50	19.00	19.0	0.80	422.1	30,568.2
30	1.258	20.13	19.63	19.6	0.80	435.9	31,916.5
20	1.327	21.23	20.73	20.0	0.80	444.2	32,739.3
10	1.404	22.46	21.96	20.0	0.80	444.2	33,046.7
0	1.615	25.84	25.34	20.0	0.80	444.2	33,046.7
						Total	284,786.1 KWH

EXCEEDANCE %	JUNE Q/Qa ratio*	Qi Qas*(Q/Qa) cfs	QI-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Jun KWH
100	0.844	13.50	13.00	13.00	0.80	288.8	0.0
90	1.001	16.02	15.52	15.52	0.80	344.6	22,802.2
80	1.145	18.32	17.82	17.82	0.80	395.8	26,652.7
70	1.212	19.39	18.89	18.89	0.80	419.6	29,351.8
60	1.280	20.48	19.98	19.98	0.80	443.7	31,078.8
50	1.340	21.44	20.94	20.00	0.80	444.2	31,964.6
40	1.404	22.46	21.96	20.00	0.80	444.2	31,980.6
30	1.460	23.36	22.86	20.00	0.80	444.2	31,980.6
20	1.507	24.11	23.61	20.00	0.80	444.2	31,980.6
10	1.567	25.07	24.57	20.00	0.80	444.2	31,980.6
0	1.763	28.21	27.71	20.00	0.80	444.2	31,980.6
						Total	301,753.3 KWH

EXCEEDANCE %	JULY Q/Qa ratio*	Qi Qas*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Jul KWH
100	0.738	11.81	11.31	11.31	0.80	251.1	0.0
90	1.009	16.14	15.64	15.64	0.80	347.4	22,266.8
80	1.146	18.34	17.84	17.84	0.80	396.1	27,660.0
70	1.196	19.14	18.64	18.64	0.80	413.9	30,131.9
60	1.250	20.00	19.50	19.50	0.80	433.1	31,506.7
50	1.296	20.74	20.24	20.00	0.80	444.2	32,633.6
40	1.348	21.57	21.07	20.00	0.80	444.2	33,046.7
30	1.432	22.91	22.41	20.00	0.80	444.2	33,046.7
20	1.503	24.05	23.55	20.00	0.80	444.2	33,046.7
10	1.587	25.39	24.89	20.00	0.80	444.2	33,046.7
0	1.727	27.63	27.13	20.00	0.80	444.2	33,046.7
						Total	309,432.3 KWH

EXCEEDANCE %	AUGUST Q/Qa ratio*	Qi Qas*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Aug KWH
100	0.531	8.50	8.00	8.00	0.80	177.6	0.0
90	1.051	16.82	16.32	16.32	0.80	362.4	20,085.8
80	1.141	18.26	17.76	17.76	0.80	394.3	28,149.1
70	1.191	19.06	18.56	18.56	0.80	412.1	29,999.8
60	1.251	20.02	19.52	19.52	0.80	433.4	31,453.8
50	1.352	21.63	21.13	20.00	0.80	444.2	32,646.8
40	1.422	22.75	22.25	20.00	0.80	444.2	33,046.7
30	1.480	23.68	23.18	20.00	0.80	444.2	33,046.7
20	1.578	25.25	24.75	20.00	0.80	444.2	33,046.7
10	1.664	26.62	26.12	20.00	0.80	444.2	33,046.7
0	1.842	29.47	28.97	20.00	0.80	444.2	33,046.7
						Total	307,568.5 KWH

EXCEEDANCE %	SEPTEMBER Q/Qa ratio*	Qi Qas*(Q/Qa) cfs	Qi-Qis cfs	Qp cfs	Eff. %	Pi KW	Ei for Sep KWH
100	1.049	16.78	16.28	16.28	0.80	361.6	0.0
90	1.296	20.74	20.24	20.00	0.80	444.2	29,009.6
80	1.372	21.95	21.45	20.00	0.80	444.2	31,980.6
70	1.432	22.91	22.41	20.00	0.80	444.2	31,980.6
60	1.507	24.11	23.61	20.00	0.80	444.2	31,980.6
50	1.583	25.33	24.83	20.00	0.80	444.2	31,980.6
40	1.647	26.35	25.85	20.00	0.80	444.2	31,980.6
30	1.691	27.06	26.56	20.00	0.80	444.2	31,980.6
20	1.723	27.57	27.07	20.00	0.80	444.2	31,980.6
10	1.743	27.89	27.39	20.00	0.80	444.2	31,980.6
0	1.858	29.73	29.23	20.00	0.80	444.2	31,980.6
						Total	316,835.3 KWH

APPENDIX G

Tables E-1, E-2A, E-2B and E-3
Revised November 1997

TABLE E-1

Revised Sept. 1997

AVERAGE ESTIMATED WEEKLY FLOW DATA WITH ESTIMATED ADDITIONAL FLOW SAHKO HYDROELECTRIC PROJECT

Week of:		A 1991 Flow Kastelu Only Flow - cfs	B 1997 New Waste Ditch Source Flow - cfs	C* Est. Waste Ditch Available Flow - cfs 75 % of Col B	D Total Estimated Available Flow - cfs Col A + Col C
January	2	1.4	0.0	0.0	1.4
	8	1.4	0.0	0.0	1.4
	15	1.4	0.0	0.0	1.4
	22	1.4	0.0	0.0	1.4
	29	1.4	0.0	0.0	1.4
February	5	1.4	0.0	0.0	1.4
	12	1.4	0.0	0.0	1.4
	19	1.4	0.0	0.0	1.4
	26	1.4	0.0	0.0	1.4
March	5	1.1	0.0	0.0	1.1
	12	1.1	0.0	0.0	1.1
	19	1.1	0.0	0.0	1.1
	26	1.1	0.0	0.0	1.1
April	2	1.1	0.0	0.0	1.1
	9	1.1	2.0	1.5	2.6
	16	2.2	2.0	1.5	3.7
	23	8.0	2.0	1.5	9.5
	30	9.9	2.0	1.5	11.4
May	7	10.4	8.0	6.0	16.4
	14	8.9	8.0	6.0	14.9
	21	8.9	8.0	6.0	14.9
	28	11.9	8.0	6.0	17.9
June	4	13.0	8.0	6.0	19.0
	11	15.2	8.0	6.0	21.2
	18	16.4	8.0	6.0	22.4
	25	15.2	8.0	6.0	21.2
July	2	16.4	8.0	6.0	22.4
	9	17.5	6.9	5.2	22.7
	16	15.2	6.9	5.2	20.4
	23	15.2	6.9	5.2	20.4
	30	11.9	6.9	5.2	17.1
August	6	9.4	5.3	4.0	13.4
	13	8.9	5.3	4.0	12.9
	20	8.9	5.3	4.0	12.9
	27	8.9	5.3	4.0	12.9
September	3	8.9	5.3	4.0	12.9
	10	8.9	7.8	5.8	14.7
	17	8.9	7.8	5.8	14.7
	24	8.9	7.8	5.8	14.7
October	1	8.9	7.8	5.8	14.7
	8	8.9	4.0	3.0	11.9
	15	8.9	4.0	3.0	11.9
	22	7.1	4.0	3.0	10.1
	29	3.5	4.0	3.0	6.5
November	5	3.2	0.0	0.0	3.2
	12	3.2	0.0	0.0	3.2
	19	3.2	0.0	0.0	3.2
	26	3.2	0.0	0.0	3.2
December	3	2.5	0.0	0.0	2.5
	10	1.9	0.0	0.0	1.9
	17	1.4	0.0	0.0	1.4
	24	1.4	0.0	0.0	1.4
'91 Weekly Ave:		6.6 cfs	Added Flow Ave:	2.6 cfs	
				Estimated Annual Average:	9.2 cfs

* It is estimated that 1997 was an above average water year, therefore, the measured waste ditch flows have been reduced by 75% to get to an estimated average annual available flow.

TABLE E-2A

ESTIMATED ANNUAL SEDIMENT REMOVAL - CONSTANT-VOLUME BASIN
SAHKO HYDROELECTRIC PROJECT

Clean pond capacity 2.57 ac-ft
Sediment unit weight 100.0 pcf

Date	Days	Flow	Sediment						
			Conc.*	Load	Acc.	Pond	Detention	Removal	Tons
		cfs	mg/l	lbs	tons	vol (ac-ft)	time (hrs)	rate (%)	removed
1/2/91	9	1.4	16	1,056	0.5	2.57	22.9	81.5	0.4
1/8/91	6	1.4	24	1,056	1.1	2.57	22.9	81.5	0.4
1/15/91	7	1.4	16	822	1.5	2.57	22.9	81.5	0.3
1/22/91	7	1.4	8	411	1.7	2.57	22.9	81.5	0.2
1/29/91	7	1.4	9	462	1.9	2.57	22.9	81.5	0.2
2/5/91	7	1.4	10	513	2.2	2.57	22.9	81.5	0.2
2/12/91	7	1.4	6	308	2.3	2.57	22.9	81.5	0.1
2/19/91	7	1.4	2	103	2.4	2.57	22.9	81.5	0.0
2/26/91	7	1.4	2	103	2.4	2.57	22.9	81.5	0.0
3/5/91	7	1.1	2	84	2.5	2.57	28.0	81.6	0.0
3/12/91	7	1.1	7	293	2.6	2.57	28.0	81.6	0.1
3/19/91	7	1.1	12	503	2.9	2.57	28.0	81.6	0.2
3/26/91	7	1.1	20	817	3.3	2.57	28.0	81.6	0.3
4/2/91	7	1.1	27	1,132	3.8	2.57	28.0	81.6	0.5
4/9/91	7	2.6	14	1,380	4.5	2.57	11.9	80.9	0.6
4/16/91	7	3.7	1	139	4.6	2.57	8.4	80.4	0.1
4/23/91	7	9.5	247	88,132	48.7	2.57	3.3	75.9	33.4
4/30/91	7	11.4	492	211,200	154.3	2.57	2.7	73.9	78.0
5/7/91	7	16.4	580	358,464	333.5	2.57	1.9	67.4	120.8
5/14/91	7	14.9	514	289,147	478.1	2.57	2.1	69.5	100.5
5/21/91	7	14.9	452	254,269	605.2	2.57	2.1	69.5	88.3
5/28/91	7	17.9	608	411,119	810.8	2.57	1.7	65.0	133.6
6/4/91	7	19.0	679	486,558	1,054.0	2.57	1.6	63.3	153.9
6/11/91	7	21.2	750	600,297	1,354.2	2.57	1.5	59.4	178.2
6/18/91	7	22.4	1,220	1,029,241	1,868.8	2.57	1.4	57.2	294.3
6/25/91	7	21.2	1,690	1,352,268	2,544.9	2.57	1.5	59.4	401.3
7/2/91	7	22.4	1,300	1,096,746	3,093.3	2.57	1.4	57.2	313.6
7/9/91	7	22.7	910	781,269	3,483.9	2.57	1.4	56.4	220.5
7/16/91	7	20.4	1,170	901,124	3,934.5	2.57	1.5	60.8	274.0
7/23/91	7	20.4	1,430	1,101,374	4,485.2	2.57	1.5	60.8	334.8
7/30/91	7	17.1	1,147	740,939	4,855.7	2.57	1.8	66.3	245.5
8/6/91	7	13.4	864	436,454	5,073.9	2.57	2.3	71.5	156.0
8/13/91	7	12.9	625	304,396	5,226.1	2.57	2.4	72.1	109.7
8/20/91	7	12.9	386	187,995	5,320.1	2.57	2.4	72.1	67.8
8/27/91	7	12.9	285	138,561	5,389.4	2.57	2.4	72.1	50.0
9/3/91	7	12.9	183	89,127	5,433.9	2.57	2.4	72.1	32.1
9/10/91	7	14.7	164	90,741	5,479.3	2.57	2.1	69.8	31.7
9/17/91	7	14.7	144	79,919	5,519.3	2.57	2.1	69.8	27.9
9/24/91	7	14.7	137	76,034	5,557.3	2.57	2.1	69.8	26.5
10/1/91	7	14.7	130	72,149	5,593.4	2.57	2.1	69.8	25.2
10/8/91	7	11.9	98	44,029	5,615.4	2.57	2.6	73.3	16.1
10/15/91	7	11.9	66	29,652	5,630.2	2.57	2.6	73.3	10.9
10/22/91	7	10.1	38	14,433	5,637.4	2.57	3.1	75.3	5.4
10/29/91	7	6.5	10	2,450	5,638.6	2.57	4.8	78.5	1.0
11/5/91	7	3.2	10	1,189	5,639.2	2.57	9.9	80.7	0.5
11/12/91	7	3.2	10	1,189	5,639.8	2.57	9.9	80.7	0.5
11/19/91	7	3.2	9	1,070	5,640.4	2.57	9.9	80.7	0.4
11/26/91	7	3.2	8	951	5,640.8	2.57	9.9	80.7	0.4
12/3/91	7	2.5	8	755	5,641.2	2.57	12.4	81.0	0.3
12/10/91	7	1.9	8	574	5,641.5	2.57	16.4	81.3	0.2
12/17/91	7	1.4	8	411	5,641.7	2.57	22.9	81.5	0.2
12/24/91	7	1.4	8	411	5,641.9	2.57	22.9	81.5	0.2
	365.0	9.2	318	11,283,820				Tons removed	3,537.4
								Total load	5,641.9
								Effective removal rate	62.7%

*Interpolated from data in Middle Snake River Water Quality Study Phase I, February 1992

TABLE E-2B

ESTIMATED ANNUAL SEDIMENT REMOVAL - VARIABLE-VOLUME BASIN
SAHKO HYDROELECTRIC PROJECT

Clean pond capacity 2.57 ac-ft
Sediment unit weight 100.0 pcf

Date	Days	Flow	Sediment						
			Conc.*	Load	Acc.	Pond	Detention	Removal	Tons
		cfs	mg/l	lbs	tons	vol (ac-ft)	time (hrs)	rate (%)	removed
1/2/91	9	1.4	16	1,056	0.5	2.57	22.9	81.5	0.4
1/8/91	6	1.4	24	1,056	1.1	2.57	22.9	81.5	0.4
1/15/91	7	1.4	16	822	1.5	2.57	22.9	81.5	0.3
1/22/91	7	1.4	8	411	1.7	2.57	22.9	81.5	0.2
1/29/91	7	1.4	9	462	1.9	2.57	22.9	81.5	0.2
2/5/91	7	1.4	10	513	2.2	2.57	22.9	81.5	0.2
2/12/91	7	1.4	6	308	2.3	2.57	22.9	81.5	0.1
2/19/91	7	1.4	2	103	2.4	2.57	22.9	81.5	0.0
2/26/91	7	1.4	2	103	2.4	2.57	22.9	81.5	0.0
3/5/91	7	1.1	2	84	2.5	2.57	28.0	81.6	0.0
3/12/91	7	1.1	7	293	2.6	2.57	28.0	81.6	0.1
3/19/91	7	1.1	12	503	2.9	2.57	28.0	81.6	0.2
3/26/91	7	1.1	20	817	3.3	2.57	28.0	81.6	0.3
4/2/91	7	1.1	27	1,132	3.8	2.57	28.0	81.6	0.5
4/9/91	7	2.6	14	1,380	4.5	2.57	11.9	80.9	0.6
4/16/91	7	3.7	1	139	4.6	2.57	8.4	80.4	0.1
4/23/91	7	9.5	247	88,132	48.7	2.57	3.3	75.9	33.4
4/30/91	7	11.4	492	211,200	154.3	2.55	2.7	73.8	78.0
5/7/91	7	16.4	580	358,464	333.5	2.52	1.9	66.9	119.9
5/14/91	7	14.9	514	289,147	478.1	2.46	2.0	68.6	99.1
5/21/91	7	14.9	452	254,269	605.2	2.42	2.0	68.2	86.6
5/28/91	7	17.9	608	411,119	810.8	2.38	1.6	62.6	128.7
6/4/91	7	19.0	679	486,558	1,054.0	2.32	1.5	59.6	145.1
6/11/91	7	21.2	750	600,297	1,354.2	2.25	1.3	53.5	160.6
6/18/91	7	22.4	1,220	1,029,241	1,868.8	2.18	1.2	48.9	251.4
6/25/91	7	21.2	1,690	1,352,268	2,544.9	2.06	1.2	48.8	329.6
7/2/91	7	22.4	1,300	1,096,746	3,093.3	1.91	1.0	40.2	220.4
7/9/91	7	22.7	910	781,269	3,483.9	1.81	1.0	34.5	134.6
7/16/91	7	20.4	1,170	901,124	3,934.5	1.75	1.0	40.3	181.8
7/23/91	7	20.4	1,430	1,101,374	4,485.2	1.66	1.0	36.5	201.2
7/30/91	7	17.1	1,147	740,939	4,855.7	1.57	1.1	45.2	167.5
8/6/91	7	13.4	864	436,454	5,073.9	1.49	1.4	55.9	122.0
8/13/91	7	12.9	625	304,396	5,226.1	1.44	1.3	55.8	85.0
8/20/91	7	12.9	386	187,995	5,320.1	1.40	1.3	54.6	51.3
8/27/91	7	12.9	285	138,561	5,389.4	1.38	1.3	53.7	37.2
9/3/91	7	12.9	183	89,127	5,433.9	1.36	1.3	53.1	23.7
9/10/91	7	14.7	164	90,741	5,479.3	1.35	1.1	45.1	20.5
9/17/91	7	14.7	144	79,919	5,519.3	1.34	1.1	44.7	17.8
9/24/91	7	14.7	137	76,034	5,557.3	1.33	1.1	44.2	16.8
10/1/91	7	14.7	130	72,149	5,593.4	1.32	1.1	43.9	15.8
10/8/91	7	11.9	98	44,029	5,615.4	1.32	1.3	55.4	12.2
10/15/91	7	11.9	66	29,652	5,630.2	1.31	1.3	55.2	8.2
10/22/91	7	10.1	38	14,433	5,637.4	1.31	1.6	61.9	4.5
10/29/91	7	6.5	10	2,450	5,638.6	1.30	2.4	72.2	0.9
11/5/91	7	3.2	10	1,189	5,639.2	1.30	5.0	78.7	0.5
11/12/91	7	3.2	10	1,189	5,639.8	1.30	5.0	78.7	0.5
11/19/91	7	3.2	9	1,070	5,640.4	1.30	5.0	78.7	0.4
11/26/91	7	3.2	8	951	5,640.8	1.30	5.0	78.7	0.4
12/3/91	7	2.5	8	755	5,641.2	1.30	6.3	79.6	0.3
12/10/91	7	1.9	8	574	5,641.5	1.30	8.3	80.3	0.2
12/17/91	7	1.4	8	411	5,641.7	1.30	11.6	80.9	0.2
12/24/91	7	1.4	8	411	5,641.9	1.30	11.6	80.9	0.2
	365.0	9.2	318	11,283,820				Tons removed	2,760.2
								Total load	5,641.9
								Effective removal rate	48.9%

*Interpolated from data in Middle Snake River Water Quality Study Phase I, February 1992

TABLE E-3

ESTIMATED ANNUAL PHOSPHATE REMOVAL
SAHKO HYDROELECTRIC PROJECT

Date	Days	Flow	Phosphate				
			Conc.*	Load	Acc.	Est. removal	Lbs
		cfs	mg/l	lbs	tons	rate %	removed
1/2/91	9	1.4	0.00	0.0	0.00	23.3	0.0
1/8/91	6	1.4	0.00	0.0	0.00	23.3	0.0
1/15/91	7	1.4	0.00	0.0	0.00	23.3	0.0
1/22/91	7	1.4	0.00	0.0	0.00	23.3	0.0
1/29/91	7	1.4	0.00	0.0	0.00	23.3	0.0
2/5/91	7	1.4	0.00	0.0	0.00	23.3	0.0
2/12/91	7	1.4	0.00	0.0	0.00	23.3	0.0
2/19/91	7	1.4	0.00	0.0	0.00	23.3	0.0
2/26/91	7	1.4	0.00	0.0	0.00	23.3	0.0
3/5/91	7	1.1	0.00	0.0	0.00	23.3	0.0
3/12/91	7	1.1	0.02	0.8	0.00	23.3	0.2
3/19/91	7	1.1	0.04	1.6	0.00	23.3	0.4
3/26/91	7	1.1	0.04	1.8	0.00	23.3	0.4
4/2/91	7	1.1	0.05	2.0	0.00	23.3	0.5
4/9/91	7	2.6	0.03	3.0	0.00	23.1	0.7
4/16/91	7	3.7	0.01	1.7	0.01	23.0	0.4
4/23/91	7	9.5	0.23	83.5	0.05	21.7	18.1
4/30/91	7	11.4	0.46	195.3	0.14	21.1	41.3
5/7/91	7	16.4	0.67	411.6	0.35	19.3	79.3
5/14/91	7	14.9	0.61	341.5	0.52	19.9	67.9
5/21/91	7	14.9	0.35	195.2	0.62	19.9	38.8
5/28/91	7	17.9	0.48	323.9	0.78	18.6	60.2
6/4/91	7	19.0	0.63	451.1	1.01	18.1	81.6
6/11/91	7	21.2	0.78	624.3	1.32	17.0	106.0
6/18/91	7	22.4	1.11	934.7	1.79	16.4	152.9
6/25/91	7	21.2	1.44	1,149.0	2.36	17.0	195.0
7/2/91	7	22.4	1.00	841.9	2.78	16.4	137.7
7/9/91	7	22.7	0.56	480.8	3.02	16.1	77.6
7/16/91	7	20.4	0.96	740.9	3.39	17.4	128.8
7/23/91	7	20.4	1.36	1,050.5	3.92	17.4	182.7
7/30/91	7	17.1	1.05	677.0	4.26	19.0	128.3
8/6/91	7	13.4	0.73	369.8	4.44	20.4	75.6
8/13/91	7	12.9	0.56	273.5	4.58	20.6	56.4
8/20/91	7	12.9	0.39	190.4	4.67	20.6	39.3
8/27/91	7	12.9	0.30	143.7	4.74	20.6	29.6
9/3/91	7	12.9	0.20	96.9	4.79	20.6	20.0
9/10/91	7	14.7	0.19	106.6	4.85	20.0	21.3
9/17/91	7	14.7	0.19	102.7	4.90	20.0	20.5
9/24/91	7	14.7	0.16	87.1	4.94	20.0	17.4
10/1/91	7	14.7	0.13	71.6	4.98	20.0	14.3
10/8/91	7	11.9	0.08	35.5	4.99	21.0	7.4
10/15/91	7	11.9	0.03	13.0	5.00	21.0	2.7
10/22/91	7	10.1	0.01	5.5	5.00	21.5	1.2
10/29/91	7	6.5	0.00	0.0	5.00	22.5	0.0
11/5/91	7	3.2	0.00	0.0	5.00	23.1	0.0
11/12/91	7	3.2	0.00	0.0	5.00	23.1	0.0
11/19/91	7	3.2	0.00	0.0	5.00	23.1	0.0
11/26/91	7	3.2	0.00	0.0	5.00	23.1	0.0
12/3/91	7	2.5	0.00	0.0	5.00	23.2	0.0
12/10/91	7	1.9	0.00	0.0	5.00	23.2	0.0
12/17/91	7	1.4	0.00	0.0	5.00	23.3	0.0
12/24/91	7	1.4	0.00	0.0	5.00	23.3	0.0
	365.0	9.2	0.29	10,008.3		Tons removed	0.90
						Total load	5.00
						Effective removal rate	18.0%

*Derived from data in Middle Snake River Water Quality Study Phase I, February 1992
(Total Phosphate minus Ortho Phosphate)

APPENDIX H

"Effect of the Sahko Hydropower Project on Surface
and Groundwater Hydrology"
Revised November 14,1997
(Brockway Engineering)

Revised 11/14/97

Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology

Twin Falls County, Idaho

Response to item 3 of the FERC request for additional information dated June 5, 1996; revised to reflect additional inflows

Brockway Engineering, PLLC

September 30, 1997

The stream on which the Sahko hydroelectric project is proposed is locally called the Kastelu Drain by the property owner. The stream flows north through the project and is incised into the basalts of the Snake River Group. These basalts generally consist of lava flows with brecciated interflow layers and/or fine-grained interbeds or paleosols. The brecciated interflow layers exhibit high hydraulic conductivity and the fine-grained interbed materials may act as perching layers for percolating waters. Several seeps are definable in the 340-foot vertical profile from the bottom of the Snake River Canyon to the project diversion with some seeps observable in the cut of the access road traversing the canyon.

These springs are typical of springs along the south side of the Snake River Canyon exhibiting seasonal hydrographs with low flows in the early spring and peaks in the late summer. These annual fluctuations coincide with irrigation diversion patterns and subsequent recharge from irrigated lands on the Twin Falls Canal Company tract.

The primary source of flow in the Kastelu Drain is from surface irrigation return flow from the Twin Falls tract. Late fall, winter, and spring flows prior to the irrigation season are supplied by springs emanating in the SE1/4 NE1/4 of Section 13 and smaller springs and seeps along the reach to the bottom of the Snake River Canyon. In addition, flow from canal company Lateral 39 which flows north to the Snake River on the west side of the farm, will be diverted into the drain through an canal company ditch. The flows in Lateral 39 were measured during most of the 1997 irrigation season by Brockway Engineering and the expected project discharge has been adjusted for the added flow.

The proposed hydroelectric project will impound approximately 6 acre-feet of water combined in the sediment retention pond and the forebay of the plant. This impoundment expands the wetted area of the stream from the 2100E road downstream to the diversion structure from approximately 0.5 acres including open water area and aquatic wetland area to 1.1 acres. The impoundment inundates some wetlands area with defined springs or seeps but does not restrict flows in the two major springs in the SE1/4 NE1/4 Sec 13.

Typical operation of the hydropower plant will involve diversion of most or all of the surface flow in the Kastelu Drain. The discharge in the reach between the

forebay and the powerhouse will therefore typically be small, but the springs which feed this reach will not be affected by the project. The springs will continue to be fed from subsurface irrigation return flow and by seepage from the project impoundments. The impact on the vegetative community from the diversion cannot be analytically determined with certainty; however, the impact is likely to be slight, since most of the vegetation along the drain is sustained by subsurface water which is at or near the surface and which will not be affected by the project.

The proposed project will therefore reduce flows in the stream between the diversion and the powerhouse but could result in slightly increased flows below the powerhouse to the extent the stream is a losing reach. The sediment pond and forebay impoundments, although increasing the wetted area subject to seepage, will not significantly affect the net flow in the stream. Ponds of the proposed sizes built in fine-grained silt loam soils in the area and with deep water tables generally exhibit maximum operational seepage of 0.3 to 0.4 cubic feet per square foot per day (ft/day). Water tables in the proposed ponded area are at or near the surface over most of the area so the operational seepage rates are estimated to be about 0.1 ft/day. Based on the estimated total pond area of 1.1 acres, the expected seepage rate is 0.11 acre feet per day or 0.055 cfs. The presence of springs in the stream channel downstream of the proposed impoundment indicates that any seepage or recharge from the ponds likely returns to the stream with no net change in streamflow due to pond seepage.

The maximum estimated evaporation rate from the pond surface is approximately 0.35 inches per day. For the net increase in effective wetted area of 0.6 acres (1.1 – 0.5 acres), the increase in evaporation is 0.0175 acre feet per day. The maximum flow rate attributable to evaporation is therefore 0.0088 cfs or 3.9 gpm.

The minimum expected discharge in the stream is 1.0 cfs and the mean is expected to be about 9.2 cfs. Based on the geology and apparent hydrogeology of the project area, the potential decrease in minimum stream flow due to the project is estimated at 0.9% and at the mean flow discharge, the percent potential decrease is 0.10%.

Potential decreases in stream flow are not measurable and not discernible in normal operations. Implementation of the project will therefore not adversely affect the streamflow below the power plant or the spring systems in sides of the Snake River Canyon.

APPENDIX I

(RE: Schedule A - Item 1)

Letter(s) of Transmittal

J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

October 3, 1997

Field Supervisor
U. S. Fish and Wildlife Service
1387 S. Vinnell Way, Rm 368
Boise, Idaho 83709

RE: Sahko Hydroelectric Project
FERC #11060-001-Idaho
J.M. Miller Enterprises, Inc.

Dear Field Supervisor :

On behalf of our subject client and pursuant to a July 30, 1997 letter from the FERC (submitted to your office by J-U-B Engineers, Inc. Letter of Transmittal) requiring additional information, we solicit your comments on the following:

RE. Item 1(A) thru 1(G) Schedule A of the FERC Letter – Additional information and revised data in regard to the additional flow from the rerouted waste ditch.

Attached are the following items:

- Report titled "Description of Rerouted Ditch" prepared by J-U-B Engineers, Inc.
- Agreement – Twin Falls Canal Company & James M. Miller.
- Revised Exhibit G – Project Location Map.
- Revised Exhibit A – Description of Project and Proposed Mode of Operation.
- Revised Power Capacity Calculations.
- Revised Report titled "Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project" prepared by Brockway Engineering.
- Revised Table E-1 – Flow Data.
- Revised Table E-2 – Sediment Removal.
- Revised Table E-3 – Phosphate Removal.
- Revised Report titled "Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology" prepared by Brockway Engineering.

J-U-B

Engineers Surveyors Planners

Please review the attached information and provide any comments that would be appropriate. We would request that your comments be submitted to the Twin Falls J-U-B office on or before November 5, 1997. If you have any questions, please don't hesitate to contact me. Meanwhile we look forward to your timely response to allow us to address your comments to the FERC.

Sincerely,

J-U-B ENGINEERS, Inc.

Tracy A. Ahrens, P.E.
Project Engineer

TAA/fw

cc: J.M. Miller Enterprises, Applicant
Marc Auth, Authorized Technical Services
Brockway Engineering, P.L.L.C.

J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

October 3, 1997

Mr. Mike McMasters
Idaho Dept. of Health and Welfare -DEQ
601 Pole Line Rd, Suite 2
Twin Falls, Idaho 83301

RE: Sahko Hydroelectric Project
FERC #11060-001-Idaho
J.M. Miller Enterprises, Inc.

Dear Mr. McMasters:

On behalf of our subject client and pursuant to a July 30, 1997 letter from the FERC (submitted to your office by J-U-B Engineers, Inc. Letter of Transmittal) requiring additional information, we solicit your comments on the following:

RE. Item 1(A) thru 1(G) Schedule A of the FERC Letter – Additional information and revised data in regard to the additional flow from the rerouted waste ditch.

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J-U-B

Engineers Surveyors Planners

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Sincerely,

J-U-B ENGINEERS, Inc.

Tracy A. Ahrens, P.E.
Project Engineer

TAA/fw

cc: J.M. Miller Enterprises, Applicant
Marc Auth, Authorized Technical Services
Brockway Engineering, P.L.L.C.

J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

October 3, 1997

Mr. Robert A. Brochu
Walla Walla Dist. Corps of Eng.
Idaho Falls Regulatory Office Exchange Plaza
1820 E. 17th, Suite 350
Idaho Falls, Idaho 83404

RE: Sahko Hydroelectric Project
FERC #11060-001-Idaho
J.M. Miller Enterprises, Inc.

Dear Mr. Brochu :

On behalf of our subject client and pursuant to a July 30, 1997 letter from the FERC (submitted to your office by J-U-B Engineers, Inc. Letter of Transmittal) requiring additional information, we solicit your comments on the following:

RE. Item 1(A) thru 1(G) Schedule A of the FERC Letter – Additional information and revised data in regard to the additional flow from the rerouted waste ditch.

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Sincerely,

J-U-B ENGINEERS, Inc.

Tracy A. Ahrens, P.E.
Project Engineer

TAA/fw

cc: J.M. Miller Enterprises, Applicant
Marc Auth, Authorized Technical Services
Brockway Engineering, P.L.L.C.

J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

October 3, 1997

Mr. John Heiner
Idaho Dept. of Fish and Game
P. O.Box 25
Boise, Idaho 83707

RE: Sahko Hydroelectric Project
FERC #11060-001-Idaho
J.M. Miller Enterprises, Inc.

Dear Mr. Heiner:

On behalf of our subject client and pursuant to a July 30, 1997 letter from the FERC (submitted to your office by J-U-B Engineers, Inc. Letter of Transmittal) requiring additional information, we solicit your comments on the following:

RE. Item 1(A) thru 1(G) Schedule A of the FERC Letter – Additional information and revised data in regard to the additional flow from the rerouted waste ditch.

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Tracy A. Ahrens, P.E.
Project Engineer

TAA/fw

cc: J.M. Miller Enterprises, Applicant
Marc Auth, Authorized Technical Services
Brockway Engineering, P.L.L.C.

J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

October 3, 1997

Mr. Carl Nellis
Idaho Dept. of Fish and Game-Region 4
868 E. Main St.
Jerome, Idaho 83338

RE: Sahko Hydroelectric Project
FERC #11060-001-Idaho
J.M. Miller Enterprises, Inc.

Dear Mr. Nellis:

On behalf of our subject client and pursuant to a July 30, 1997 letter from the FERC (submitted to your office by J-U-B Engineers, Inc. Letter of Transmittal) requiring additional information, we solicit your comments on the following:

RE. Item 1(A) thru 1(G) Schedule A of the FERC Letter – Additional information and revised data in regard to the additional flow from the rerouted waste ditch.

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J-U-B ENGINEERS, Inc.

Tracy A. Ahrens, P.E.
Project Engineer

TAA/fw

cc: J.M. Miller Enterprises, Applicant
Marc Auth, Authorized Technical Services
Brockway Engineering, P.L.L.C.

J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

October 3, 1997

Director Idaho Operations Office
U.S. Environmental Protection Agency
1435 N. Orchard Street
Boise, Idaho 83706

RE: Sahko Hydroelectric Project
FERC #11060-001-Idaho
J.M. Miller Enterprises, Inc.

Dear Director :

On behalf of our subject client and pursuant to a July 30, 1997 letter from the FERC (submitted to your office by J-U-B Engineers, Inc. Letter of Transmittal) requiring additional information, we solicit your comments on the following:

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J-U-B ENGINEERS, Inc.

Tracy A. Ahrens, P.E.
Project Engineer

TAA/fw

cc: J.M. Miller Enterprises, Applicant
Marc Auth, Authorized Technical Services
Brockway Engineering, P.L.L.C.

J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

October 3, 1997

Mr. Allen Merritt
Idaho Dept. of Water Resources - SRO
1341 Fillmore Street, Suite 200
Twin Falls, Idaho 83301

RE: Sahko Hydroelectric Project
FERC #11060-001-Idaho
J.M. Miller Enterprises, Inc.

Dear Mr. Merritt:

On behalf of our subject client and pursuant to a July 30, 1997 letter from the FERC (submitted to your office by J-U-B Engineers, Inc. Letter of Transmittal) requiring additional information, we solicit your comments on the following:

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Tracy A. Ahrens, P.E.
Project Engineer

TAA/fw

cc: J.M. Miller Enterprises, Applicant
Marc Auth, Authorized Technical Services
Brockway Engineering, P.L.L.C.

J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS
800 Falls Avenue, Suite 1
Twin Falls, ID 83301
208/733-2414
FAX: 208/733-9455

October 3, 1997

Mr. Timothy J. Stover
Canyon Springs L.L.C.
Rosholt Robertson & Tucker
P. O. Box 1960
Twin Falls, Idaho 83303-1906

RE: Sahko Hydroelectric Project
FERC #11060-001-Idaho
J.M. Miller Enterprises, Inc.

Dear Mr. Stover :

On behalf of our subject client and pursuant to a July 30, 1997 letter from the FERC (submitted to your office by J-U-B Engineers, Inc. Letter of Transmittal) requiring additional information, we solicit your comments on the following:

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J-U-B ENGINEERS, Inc.

Tracy A. Ahrens, P.E.
Project Engineer

TAA/fw

cc: J.M. Miller Enterprises, Applicant
Marc Auth, Authorized Technical Services
Brockway Engineering, P.L.L.C.

Is your

PS Form **3811**, December 1994

6. Signature: *(Addressee or Agent)*

X

Domestic Return Receipt

P 357 313 441

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to	Field Super.U.S. Fish&Wildlife
Street & Number	1387 S. Vinnel Way, Rm 368
Post Office, State, & ZIP Code	Boise, ID 83709
Postage	$ 1.93
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date & Addressee's Address	
TOTAL Postage & Fees	$ 4.38
Postmark or Date	

PS Form **3800**, April 1995

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Addressee's Address
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Thank you for using Return Receipt Service.

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PS Form **3811**, December 1994

6. Signature: *(Addressee or Agent)*

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Domestic Return Receipt

P 357 313 448

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to	Doug Howard - DEQ
Street & Number	601 Pole Line Rd., Suite 2
Post Office, State, & ZIP Code	Twin Falls, ID 83301
Postage	$ 1.93
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date & Addressee's Address	
TOTAL Postage & Fees	$ 4.38
Postmark or Date	

PS Form **3800**, April 1995

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☐ Insured
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Addressee's Address
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postmaster for fee.

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services (for an
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Thank you for using Return Receipt Service.

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PS Form **3811**, December 1994

6. Signature: *(Addressee or Agent)*

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Domestic Return Receipt

P 357 313 442

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to	Mr. Robert A. Brochu
Street & Number	1820 E. 17th, Suite 350
Post Office, State, & ZIP Code	Idaho Falls, ID 83404
Postage	$ 1.93
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date & Addressee's Address	
TOTAL Postage & Fees	$ 4.38
Postmark or Date	

PS Form **3800**, April 1995

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☒ Certified
☐ Insured
☐ COD

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Addressee's Address
Restricted Delivery
postmaster for fee.

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l services (for an
):

Thank you for using Return Receipt Service.

P 357 313 446

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to: John Heiner IDF&G	
Street & Number: P. O. Box 25	
Post Office, State, & ZIP Code: Boise, Idaho 83707	
Postage	$ 1.93
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$ 4.38
Postmark or Date	

PS Form **3800**, April 1995

6. Signature: *(Addressee or Agent)*

X

PS Form **3811**, December 1994

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Addressee's Address

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Thank you for using Return Receipt Service.

P 357 313 443

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to: Carl Nellis-IDF&G-Region 4	
Street & Number: 868 E. Main St.	
Post Office, State, & ZIP Code: Jerome, ID 83338	
Postage	$ 1.93
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee's Address	
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PS Form **3800**, April 1995

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X

PS Form **3811**, December 1994

Domestic Return Receipt

Is your

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Restricted Delivery

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443

XX Certified

☐ Insured

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Ss (Only if requested

Thank you for using Return Receipt Service.

P 357 313 445

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to: Director Idaho Operations Off	
Street & Number: 1435 N. Orchard Street	
Post Office, State, & ZIP Code: Boise, ID 83706	
Postage	$ 1.93
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
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PS Form **3811**, December 1994

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PS Form 3811, December 1994

Domestic Return Receipt

P 357 313 444

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to	Allen Merritt - IDWR
Street & Number	1341 Fillmore St., Ste 300
Post Office, State, & ZIP Code	Twin Falls, ID 83301
Postage	$ 1.93
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
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PS Form 3800, April 1995

(Only if requested)

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Addressee's Address

Restricted Delivery

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Is your

6. Signature: (Addressee or Agent)

X

PS Form 3811, December 1994

Domestic Return Receipt

P 357 313 447

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to	Timothy Stover-Canyon Springs
Street & Number	P. O. Box 1960
Post Office, State, & ZIP Code	Twin Falls, ID 83303-1960
Postage	$ 1.93
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date & Addressee's Address	
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Postmark or Date	

PS Form 3800, April 1995

(Only if requested)

☐ COD ☒ Certified ☐ Insured

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ddressee's Address

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Thank you for using Return Receipt Service.

APPENDIX J

(RE: Schedule A-Item 1)

Agency Response(s)

IDAHO DEPARTMENT
OF HEALTH AND WELFARE

DIVISION OF
ENVIRONMENTAL QUALITY

601 Pole Line Road, Suite 2, Twin Falls, ID 83301-3035, (208) 736-2190

Philip E. Batt, Governor

October 17, 1997

J.U.B. ENGINEERS
RECEIVED

OCT 22 1997

TWIN FALLS, IDAHO

Mr. J. M. Miller
Sahko Hydroelectric Project
P. O. Box 595
Twin Falls, ID 83303

RE: Return Ditch Re-route

Dear Mr. Miller:

We have reviewed the above referenced assessment for the rerouting of the return ditch in the Kastelu drainage.

DEQ is in support of this projects as water quality is improved by the reduction in flow velocity allowing sediment to drop out prior to deposition in the Snake River.

Thank you for giving DEQ the opportunity comment on the project.

Sincerely,

Nick Cizmich
Water Quality Science Officer, TF-DEQ

NC/ml
cc: Doug Howard, Regional Administrator, DEQ-TFRO
Mike McMasters, Regional Manager-Engineering, DEQ-TFRO
Tracy A. Ahrens P. E., JUB Engineering, Inc.

J.U.B. ENGINEERS
RECEIVED
NOV - 5 1997
TWIN FALLS, IDAHO

IDAHO FISH & GAME

Magic Valley Region
868 East Main • P.O. Box 428
Jerome, Idaho 83338
(208) 324-4350
Fax (208) 324-1160

Philip E. Batt/Governor
Stephen P. Mealey/Director

November 3, 1997

Mr. Tracy Ahrens, P.E.
J-U-B Engineers, Inc.
800 Falls Avenue, Suite 1
Twin Falls, Idaho 83301

RE: **Sahko Hydroelectric Project, FERC #11060-001, Request for Comment on Additional Information**

Dear Tracy,

We have reviewed the above referenced additional information associated with submission of documents to the Federal Energy Regulatory Commission (FERC) for the Sahko Hydroelectric Project, FERC #11060, near Filer, Idaho. We have no additional comments on the following sections: Description of Reroute Ditch, Agreement with Twin Falls Canal Company, Revised Exhibit G - Project Location Map, Revised Exhibit A - Description of Project and Proposed Mode of Operation, Revised Power Capacity Calculations, and Revised Table E-1 - Flow Data. Please consider the following comments in finalizing your project information for FERC filing:

Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project - Sediment Collection Basin - In estimating sediment removal it appears that the retention time used in predicting deposition is based on having the full pond volume for all scenarios calculated. This is not a realistic assumption. As time passes and sediment is deposited in the pond, pond volume decreases, retention time decreases, and sediment deposition proportionally decreases. If we are correctly interpreting the information presented in the report, it appears that sediment retention is being over estimated. Conversely, if sediment retention is over-estimated, nutrient removal will also be estimated above realistic removal rates.

Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project - Sediment Removal and Transportation Plan - This is an excellent description of the engineering aspect of sediment removal, however, we are looking for measures to protect the sediment basin wetland and riparian vegetation during sediment removal operations. This aspect of sediment removal from water quality ponds managed by the local Canal Companies is commonly over-looked. We recommend that one hardened ingress/egress point be designed into the ponds, for cleaning purposes, and that the sediment removal contract with the Canal Company be modified to state that vegetation removal from the pond or pond perimeter will only be allowed after consultation and comment between IDFG, USFWS, and the applicant.

Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project - Erosion Control Measures - We recommend the use of the coconut fiber matting bound with jute rather than biodegradable monofilament netting material. We have document fish and wildlife mortalities on several local projects resulting from animals becoming trapped or snared in biodegradable monofilament netting. This problem is especially acute when netting is used near aquatic environments or in locations where the material is re-arranged or deposited by flood flows.

The seed mixture identified on page 9 is still not a native grass/forb blend. Enclosed information details the origins of each plant species, none of which are native to South Idaho climates. In previous correspondence (see letter of 5/13/97) we recommended the use of a seed mix which is native to Idaho climates and which will provide better habitat values for wildlife. Plant species such as Idaho fescue, Indian rice grass, western wheat grass, or blue-bunch wheat grass should be considered in site restoration. We also recommend local willows cuttings be incorporated into all riprap banks. This will improve bank stability through extensive rooting, provide natural screening, and contribute wildlife habitat. Information on planting techniques can be provided upon request.

Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology - This report contains detail on surface and groundwater hydrology above the diversion structure and below the powerhouse but does little to address hydrologic impacts between the two structures. We recommend this report address the interaction between the vegetative community and changes in the local hydrology resulting from the impoundment and diversion of water in the Kastelu Drain. As in the past (see letter dated 5/13/97) we continue to recommend a monitoring program be developed to take a long-term look at the impact of hydrologic changes on "naturally" existing vegetation within the project reach, with an emphasis on the segment between the diversion and the powerhouse.

Thank you for the opportunity to review and comment on this document. If you have further questions please contact Dave Parrish at 208-324-4359 or John Heimer at 208-334-2597.

Sincerely,

Carl H. Nellis
Magic Valley Regional Supervisor

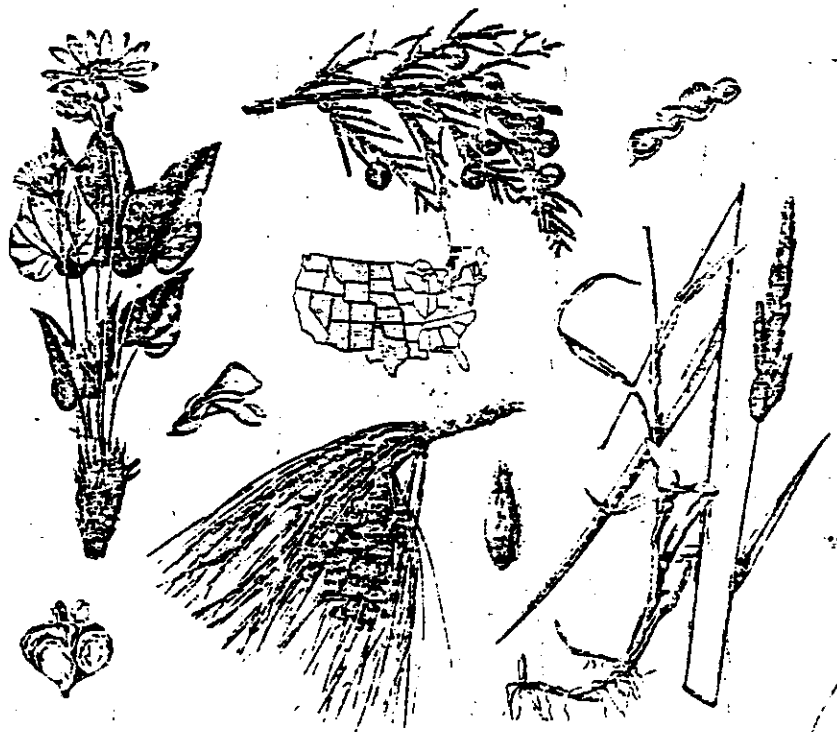
cc: IDFG-NRPB (Heimer)
USFWS-Boise

Enclosure

Biological Services Program

FWS/OBS-82/56
SEPTEMBER 1982

ECOLOGY AND CULTURE OF SELECTED SPECIES USEFUL IN REVEGETATING DISTURBED LANDS IN THE WEST



Fish and Wildlife Service

U.S. Department of the Interior

NATIONAL TECHNICAL INFORMATION SERVICE

ALFALFA
Medicago sativa L.

ORIGIN

Indigenous to southwest Asia. Grown in all 50 States. See map for distribution in the U.S.

SPECIES CHARACTERISTICS

Cool and also warm season, herbaceous, perennial, leguminous forb.

> Numerous erect stems, usually 2 to 3 feet tall from narrowly to relatively broadly-based woody root crowns. Leaves alternate, pinnately trifoliate; leaflets denticulate and hairy. Inflorescences loosely arranged racemes with several small purple, white, or sometimes yellowish or bronze colored pealike flowers bearing small kidney-shaped seeds in spirally twisted pods upon maturing (1).

Stout, deep, taprooted plants bearing nodules that fix nitrogen when inoculated. Taproots may be 10 to 30 feet in length. Plants resume growth in early spring, later at higher altitudes and latitudes, flower in early to late summer, and make excellent regrowth after flowering or cutting, usually sufficient to produce multicrops of hay or pasturage. Peer forage plant nearly worldwide for production, nutrition, and good acceptance by most herbivores. Dense cover resists erosion, provides food and cover for birds and small mammals, and attracts big game. Green herbage induces bloat in ruminants correctable by diligent management and bloat-suppressing supplements (1,2).

ECOLOGICAL RELATIONSHIPS

Thrives on fertile, deep, loamy soils having porous subsoils. Tolerant of deep sand and sandy soils with adequate moisture and well adapted to deep soils with water tables within 5 to 9 feet of surface. Better adapted to basic reacting soils with liberal calcium content; not performing well on acid soils unless neutralized by liming. Lower pH tolerance of 5.5. Tolerant of moderately saline soils. Moderately good drought tolerance of established plants, more susceptible at seedling stage of development. Generally useful in the 15 to over 20 inches MAP zones but survives in the 12 to 15 inches zone in cooler or moisture-accumulating habitats. Considerable variation in winter-hardiness. Usually good hardiness among improved varieties of variegated alfalfa; be certain of the hardiness of "common" strains/sources before using. Alfalfa grown from below sea level in Imperial Valley, California to 8,000 feet in elevation in Colorado. Only fair shade tolerance. Fire-resistant when green and good fire tolerance when dormant. Moderate grazing tolerance; intolerant of continuous grazing during growing season. Established plants moderately to strongly competitive; compatible with strongly competitive grasses like smooth bromegrass (*Bromus inermis*) and Russian wildrye (*Elymus junceus*) (1,3,4).

CULTURE

Planting Depth, Rate, and Time

Drill seed 1/2 inch deep in loamy soils of firm, moist seedbeds; up to 1 inch deep on drier, sandy, or loose seedbeds; and only 1/4 inch deep or seeded on surface with press-wheel drill or in a cultipacker drill in finer textured and moister soils. Seed at greater depth in fall; seed at shallower depths in spring, unless dry or windy. Seed 5 to 10 pounds PLS per acre; lower rate when drilling and in lower precipitation zones; and higher rate when broadcasting and for seeding harsh, erosive, and south and west-facing sites. Use 12 to 18 PLS pounds per acre for eastern and midwestern, humid zone minesoils. Use conservative fractional rates in seeding mixtures to keep composition [illegible] nds well below 50 percent in rangeland and grazed areas to minimize bloat and prevent [illegible] n. Plant before the growing season consistently having adequate surface moisture [illegible] nation and seedling establishment: early spring in northern Great Plains, August to Oc [illegible] outhern Great Plains and lower elevations of intermountain and Pacific Northwest re [illegible] s early as possible to seed in spring or summer in higher mountains under dryland [illegible] ring or late summer to fall under irrigation out in time for seedlings to make enc [illegible] safely. Do not seed alfalfa with companion crops unless adequate water exists [illegible] gether, seed in alternate rows or at an angle to each other

SMOOTH BROME
Bromus inermis Leyss

ORIGIN

Native to Europe, Russia, and Siberia. See map for distribution in the U.S.

SPECIES CHARACTERISTICS

Leafy, medium-sized, cool season, long-lived, sod-former of C-3 type.

> Culms 2 to 4 feet tall, leafy at base and with brown, scaley rhizomes. Leaf blades broad, smooth, flat, and lax. Ligule papery and about 1/8 inch long. Sheaths an unsplit cylinder, basal ones slightly hairy. Inflorescence an open panicle 4 to 8 inches long with numerous ascending branches. Spikelets flattened, cylindric shaped, 5 to 10-flowered. Glumes short; lemmas flattened, brown at maturity, awnless or minutely awned from between two small apices (1).

Vigorous, uniform sod-former with dense, surface fibrous roots and rhizomes and moderately deep and extensive fibrous root system. Growth starts in early spring, makes vigorous vegetative growth during May or June (later at higher elevations and latitudes), matures during late June and July and becomes semidormant until cooler and/or rainy fall weather. Makes abundant early summer and fall regrowth. Highly palatable to livestock when green, poor palatability in winter; low palatability to elk in spring and fall and to deer in spring. Canada geese graze young plants.

ECOLOGICAL RELATIONSHIPS

Thrives in fertile, deep, silty and clayey soils in cooler subhumid zones. Not very vigorous on sandy and dense clay soils. Better performance in 16 to over 20 inches MAP zones but useful and sometimes naturalized on overflow and subirrigated sites in lower rainfall zones. Fair salinity tolerance and grows on weakly acid to weakly alkaline soils. Fair drought tolerance; declines sharply in production but usually survives, recovers, and spreads by rhizomes. Good cold tolerance and winter-hardiness. Adapted and persisting at subalpine elevations about 11,000 feet in elevation with management in central and southern Rocky Mountains; not persisting above 9,000 feet in elevation in northern Rocky Mountains. Somewhat intolerant of prolonged summer heat and generally not adapted to nonirrigated sites much below 5,000 feet in elevation in Arizona, New Mexico, and Texas. Moderate tolerance to early spring flooding but not tolerant of high water tables in surface foot of soil. Optimal growth on well-drained soils. Moderate shade tolerance. Responds well to irrigation and nitrogen fertilization. Dense stands become sod-bound in 3 to 5 years without a perennial legume in stand or nitrogen fertilization (2,3). Fair tolerance of fire when dormant and in early spring (4).

CULTURE

Planting Depth, Rate, and Time

Drill seed 1/2 to 1 inch deep on finer to coarser textured soils, respectively. Better stands obtained on prepacked seedbeds. Cover broadcast seed with soil to same depths. Drill 15 to 20 PLS per square foot (5 to 7 pounds PLS per acre) for pasture purposes in drier, subhumid zones. Increase seeding rate 50 to 100 percent for broadcasting; on harsher, erosive, and south and west exposures; humid zones; and where quicker and denser cover is desired. Supplemental mulching results in better stand establishment on steep and erosive slopes. Plant before or very early during the most favorable 2-month period for rapid germination and seedling establishment; early spring, late fall, early fall before October, June 15 to July 15 in southwestern pine and adjacent zones, or June or as early as possible in summer at higher mountain elevations (3,5).

Seed Cleaning and Quality

General preference is to either combine harvest seed when fully mature or to use a swather first. One experimental test yielded 694, 584, and 394 pounds per acre of 'Manchar' seed by binding and threshing, swathing, and combining direct, respectively (6). Seed quality: 92 percent purity; 85 percent germination; 78 percent PLS; and 140,000 to 145,000 seed per pound.

Germination and Seedling Characteristics

Seed germinates rapidly in 14 days and is aided by a short prechilling treatment. Strong seedling vigor. Ready for grazing by end of second growing season with good moisture conditions.

MANAGEMENT

Species used for nonirrigated pasture; for soil conservation and stabilization in grass waterways, terrace outlets, drainage ditches, and on roadsides; also seeded for irrigated pasture and hay, with or without alfalfa (*Medicago sativa*) and other species. Widely used in game range restoration and mined land stabilization. Provides fair cover for small game and upland birds but low diversity of cover due to competitiveness. Seeds eaten by birds and rodents. Control weeds when necessary in seedling year. Graze moderately spring and fall to complement native range grazed in summer. More uniform grazing use by rotation grazing system; more vigorous stands obtained by resting periodically during active growing season. Fertilization program necessary to maintain sustained high levels of production; conservative fertilization may be needed to maintain moderate volumes of cover.

ASSOCIATED SPECIES

Commonly seeded with alfalfa (*Medicago sativa*) in Northcentral and Midwestern States and under irrigation in West. Commonly used in meadow and rangeland seeding mixtures with other cool season species and legumes for higher elevation zones. Soon becomes sodbound when grown alone.

PESTS AND DISEASES

Grasshoppers, gophers, and other rodents may damage stands and/or forage. Fungicidal seed treatment aids in control of seed-borne seedling diseases. Considerable leaf and stem rust, leaf spot, stripe, and occasionally head-smut affect forage and seed quality, especially in wet years.

IMPROVED VARIETIES

Marked differences associated with northern and southern smooth brome strains, which originated in northern and central Europe, mostly in Russia and Hungary, respectively:

Northern Type	Southern Type
symmetrical open panicle	one-sided, drooping panicle
weakly rhizomatous	strongly rhizomatous
better seed producer	poorer seed producer
less rapid sod binding	rapid sod binding
more recovery after cutting	less recovery after cutting
less drouth resistance	more drouth resistance
less seedling vigor	more seedling vigor
later spring grower	earlier spring and later fall grower

Northern-type cultivar (Origin)	Southern-type cultivars (Origin)
'Parkland' (Canada)	'Lincoln' (Nebraska)
'Superior' (Canada)	'Achenbach' (Kansas)
'Manchar' (Washington)	'Fischer' (Iowa)
'Carlton' (Canada)	'Elsberry' (Missouri)
'Homesteader' (South Dakota)	'Lancaster' (Nebraska)
'Martin' (Minnesota)	'Lyons' (Nebraska)
'Kuhi' (Oregon)	'Southland' (Oklahoma)
'Saratoga' (New York)	

Consult plant materials specialists in each state for adaptation and best use of these and newly developed cultivars.

MANAGEMENT

Limited use made of the species due to poor seed production and weak seedling vigor. Control weeds and withhold grazing during seedling year. Graze moderately; rest stands periodically for 1 to 2 months during growing season. Rest-rotation grazing may improve unsatisfactory stands (5).

ASSOCIATED SPECIES

Species intermixed in native stands with bluebunch wheatgrass (*Agropyron spicatum*), big sagebrush (*Artemisia tridentata*), and ponderosa pine (*Pinus ponderosa*); greatly invaded by cheatgrass brome (*Bromus tectorum*) in past half century.

PESTS AND DISEASES

Seedling stands reduced by grasshoppers and rodents. "Damping-off" seedling diseases sometimes affect stand success.

IMPROVED VARIETIES

None.

Arizona fescue
Festuca arizonica Vasey

Native, common in ponderosa pine zone from Colorado south to west Texas, Mexico, and Nevada. Similar to Idaho fescue; larger plants having lemmas with shorter awn-tips. Moderately shade and drought-tolerant. Cool season growth habits, but making reduced spring growth due to being dry season. Matures late summer with little fall regrowth. Dense, coarse, fibrous root system. Moderately palatable; moderate grazing tolerance; only fair tolerance of wildfires. Limited seedings made in native habitats when required to revegetate disturbed lands with natives. 'Redondo', developed from northern New Mexico collection, is adapted for revegetating and stabilizing disturbed soils.

Sheep fescue
Festuca ovina L.

Native, dwarfer, small-tufted, circumboreal bunchgrass very similar to Idaho fescue; and more common at higher subalpine and alpine elevations in Rocky Mountains and Cascade-Sierra Nevada Mountains. Tolerant of shallow, gravelly, and dry, exposed sites. 'Covar', developed from Turkish introduction, adapted to many exposed high altitude northern Rocky Mountain and northern intermountain sites with over 8 inches MAP. Culture similar to Idaho fescue.

Hard fescue
Festuca ovina duriuscula (1) Koch

Larger European form of sheep fescue, more widely used for revegetation and soil conservation purposes in suitable sites having over 15 inches MAP in montane to subalpine zones of Rocky Mountain, intermountain, and Pacific Northwest regions.

REFERENCES

(1) Shaw, A. F., and C. S. Cooper, co-chairmen. 1973. The interagency forage, conservation and wildlife handbook. Mont. State Univ. Ext. Serv., Bozeman. 205 pp.

(2) Vallentine, J. F. 1971. Range development and improvements. Brigham Young Univ. Press, Provo, UT. 516 pp.

(3) Hafenrichter, A. L., L. A. Mullen, and R. A. Brown. 1949. Grasses and legumes for soil conservation in the Pacific Northwest. U.S. Dept. Agr. Misc. Publ. 678. 56 pp.

(4) Plummer, A. P., D. R. Christensen, and S [illegible] ime range in Utah. Utah Div. Fish and Game Publ. 68-3. 183 pp.

APPENDIX K

(Re: Schedule A - Item 2)

Agency Response(s).

State of Idaho
DEPARTMENT OF WATER RESOURCES
1341 Fillmore Street, Suite 200, Twin Falls, ID 83301-3380
Phone: (208) 736-3033 FAX: (208) 736-3037

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

October 7, 1997

Tracy A. Ahrens, PE
JUB Engineers, Inc
800 Falls Ave, Suite 1
Twin Falls, ID 83301

RE: Application for Permit 47-08271
Miller Enterprises Inc. (Sahko Project)

Dear Mr. Ahrens:

I have reviewed your recent letter and attached information regarding the above described project and it appears that the approved water right permit 47-08271 does not agree with the current project proposal.

It appears that the current proposal expands the development of waste water beyond that which is currently covered under the approved water right permit (Please find enclosed a printout of the current permit for your reference). I recommend that the permit holder amend permit 47-08271 to include the currently proposed additional point of diversion within the SW¼NW¼, Section 13, Twp.09S, Rge.15E, B.M. or that a new application be filed to cover this diversion.

If you have questions, please feel free to contact our office.

Sincerely,

Allen Merritt, PE
Southern Region Manager

CC: Norm Young

J.U.B. ENGINEERS
RECEIVED
OCT 10 1997
TWIN FALLS, IDAHO

WR5808NP
(OD-26)

IDAHO DEPARTMENT OF WATER RESOURCES
WATER RIGHT PROOF READING REPORT

10/07/97 09:50:55
Page 1

Water Right Number - 47-08271 Prefix Translation: WATER RIGHT Old (D) Number -

Last Name	First Name	Address
*** C - CURRENT OWNER *** MILLER ENTERPRISES INC	J M	1 - PO BOX 595 2 - 3 - City- TWIN FALLS State- ID Zip- 833030595 Phone - 208-622-7215

Priority Date	Region	Stage	Status
04/24/1991	17 SOUTHERN	P - PERMIT	

Source	Tributary
UNNAMED STREAM	SNAKE RIVER
WASTE WATER	SNAKE RIVER

Point of Diversion

Twn	Rng	Sec	Tract	Lot	RFlg	County	Diversion Name	Diversion Rate	Diversion No.
09S	15E	13	SE SE NE			(83) TWIN FALLS			

Water Use

Code	Description	Period From	Period To	Diversion Rate	Diversion Volume
04	STOCKWATER	01/01	12/31	0.050	
28	POWER	01/01	12/31	20.000	

Total Div. Rate	Total Div. Volume	Total Div. Capacity
20.000		

Place of Use

Twn	Rng	Sec	Tract	Lot	Acres	Code	Description	County
09S	15E	13	NE NE			04	STOCKWATER	(83) TWIN FALLS
09S	15E	13	SE NE			04	STOCKWATER	(83) TWIN FALLS
09S	15E	13	NE NE			28	POWER	(83) TWIN FALLS

Diversion Means -

Non-Irrigation Use -

Other Rights for Same Use -

Remarks

Use of water for power under this right shall be non-consumptive.
Stockwater use is for 150 range cattle and 50 sheep.

Old Water Right Numbers

No Old Water Right Numbers found.

Conditions of Approval

26A - Project construction shall commence within one year from the
- date of permit issuance and shall proceed diligently to
- completion unless it can be shown to the satisfaction of the
- Director of the Department of Water Resources that delays were

Water right number - 47-08271 Prefix Translation: WATER RIGHT

Conditions of Approval

(Condition continued from previous page)
- due to circumstances over which permit holder had no control.

051 - Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.

052 - Diversion and use of water under this right is subject to an annual use fee if rules are subsequently promulgated which provide for the submittal of the fee.

053 - The Director retains jurisdiction over this right and may change, add, or remove any requirement as determined to be appropriate.

08A - This right is subject to the provisions of Sections 42-205 through 42-210, Idaho Code, restricting the sale, transfer, assignment, or mortgage of this right. Failure to comply with these provisions is cause for immediate cancellation of this right.

17K - The water right acquired under this permit for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.

025 - This right does not constitute Idaho Public Utilities Commission or Federal Energy Regulatory Commission approval that may be required.

01F - The right holder shall either install a measuring device or a flow measurement port or provide a certified measurement or computation of flow based upon system design to be prepared by a professional engineer.

09E - Water used under this right when discharged into a natural channel or subsurface system shall meet Idaho Water Quality Standards.

17M - The Director retains jurisdiction of this right in order to limit the use of water for hydropower generation purposes to a specific term of years as required by Section 42-203B(7), Idaho Code.

18B - The storage of water under this right is contingent upon the certification of the dam and authorization of storage per the dam safety provisions of the Idaho Code.

020 - Use of water under this right may be affected by an agreement between the protestant and the right holder.

Decree Plaintiff	Decree Defendant	Decree Date
		00/00/0000

Water right number - 47-08271 Prefix Translation: WATER RIGHT

-Comments-

Date: 10/27/1993 User Id: ZIMMERMA Subject: MORATORIUM & TW EXEMPTION
This permit is located within the Eastern Snake River Plain Moratorium and trustwater boundary; however, its non-consumptive uses are within the acceptable parameters of the Moratorium and trustwater guidelines.

Date: 10/27/1993 User Id: ZIMMERMA Subject: CORPORATE OFFICER
The only corporate officer of J M Miller Enterprises, Inc is; James M Miller, President

Date: 10/27/1993 User Id: ZIMMERMA Subject: DIVERSION DESCRIPTION
Rockdam diversion in wastewater from #39, #39A, and S2 to channel through 24" CMP pipe. 2 dams at 20' each with reservoir cpacity of 40 AF.

Audit Fields - 06/11/91 BALDWIN 08/07/91 SKAGGS 08/30/91 BALDWIN 08/07/92 BALDWIN 11/27/92 BALDWIN 10/26/93 ZIMMERMA 10/27/93 ZIMMERMA 11/05/93 ZIMMERMA

Water Rights Dates and Flags Area

Proof Due Date	- 11/01/1998	Field Exam Made	- 00/00/0000	Field Exam Fee	-
Approved/Denied	- 11/16/1993	Protested Date	- 00/00/0000	Swan Falls	- M
Proof Made Date	- 00/00/0000	Hearing Date	- 00/00/0000	Temporary Right	- P
Exam to S.O. Date	- 00/00/0000	Verified Date	- 00/00/0000	DLE/Carey Act	-
Order Show Cause	- 00/00/0000	Receipt Number	- S013275	Water District	-
Licensed Date	- 00/00/0000	Appl Received	- 04/24/1991	Transfer/Amended	-
Decree Date	- 00/00/0000	Name Connector	-	POU Ownership Flag	- Y
Presumption Flag	-				

APPENDIX L

Applicant's Consultants Response(s).

BROCKWAY
ENGINEERING
P.L.L.C.

Hydraulics
Hydrology
Water Resources

CHARLES E. BROCKWAY, PH.D., P.E.

CHARLES G. BROCKWAY, PH.D.

706 SUNRISE BOULEVARD NORTH

TWIN FALLS, IDAHO 83301

208•733•0938
208•734•2580

FAX: 736•1746

November 14, 1997

Mr. Tracy Ahrens
J-U-B Engineers, Inc.
800 Falls Avenue
Twin Falls, ID 83301

Re: Sahko Hydropower Project

Dear Tracy:

As you requested, we have prepared responses to the concerns of both the Idaho Department of Water Resources and the Idaho Fish and Game in letters dated respectively October 7, 1997 and November 3, 1997. In addition, the reports "Effect of the Sahko Hydropower Project on Surface and Groundwater Hydrology" and "Site Geology and Erosion and Sediment Control Plan for the Sahko Hydropower Project" were revised and are included with this letter.

RESPONSE TO IDWR COMMENTS

Allen Merritt of the Southern Region of the Idaho Department of Water Resources contends that because some water will be diverted eastward through an existing ditch from Lateral 39 to the Kastelu Drain, the water permit should be amended to reflect an additional point of diversion. Mr. Merritt's chief concern is that notice was not given to potential downstream users on Lateral 39, who may be concerned about reduced flows in that stream.

Both Lateral 39 and the existing ditch connecting the two are Twin Falls Canal Company system conveyances flowing through the applicant's property. Through an authorization from the canal company, the flow in Lateral 39 will be rerouted and the applicant will begin diverting a portion of his canal shares from the connecting ditch. A check structure will be located near the center of Section 13 and the water will be pumped from the ditch to a center pivot in the SE1/4 Sec. 13. From there, water not used by the pivot will travel eastward to the Kastelu Drain. Historically, water has been delivered to the ditch for gravity irrigation via a pipeline from Lateral 39.

Redistribution of flow within the canal company system to deliver a shareholder's water does not represent a new point of diversion of public water. The canal company as a matter of course continually redirects water throughout its system to satisfy the demands of its shareholders. These redirections have never been under the jurisdiction of IDWR, even though

they certainly affect the discharge in the various return flow streams along the Snake River. Therefore, no amendment to the water right permit is required.

Even though no amendment is needed, it is worth identifying any water users who would potentially be impacted by redirecting water to the drain. The only known water user downstream of the Miller property who uses Lateral 39 water is the canal company itself, who maintains the Cedar Draw water quality project, consisting primarily of a large sediment collection basin. The canal company would not object to reduced flows in this lateral, since increased sediment removal would result. The lateral joins Cedar Draw downstream of the Crystal Spring fish hatchery, so this facility would not be impacted. Idaho Fish & Game has already stated in the letter dated November 3, 1997 that they have no comments on the plan to redirect the water. No other water user or interested party should be impacted by the redirection.

RESPONSE TO IDF&G COMMENTS

Item 1

Estimation of sediment removal did in fact assume a constant-volume detention basin. The sediment removal calculations were revised to examine a single pond which decreases in volume as sedimentation occurs. The sediment removal under this scenario will be 2760 tons (49%). Under the constant-volume case, the sediment removal will be 3537 tons (62%). However, it can be shown that the net effect of the sediment basin and the forebay in series will be nearly the same as the constant-volume single-basin case, since the forebay will remove some larger particles that the sediment basin becomes unable to remove as it decreases in volume. Therefore, the total removal including the effect of the forebay will be close to 62%, assuming the sediment basin is cleaned once a year. Likewise, phosphorous removal will be approximately 18%.

Item 2

It is anticipated that a gravel ingress/egress point sufficient to allow vehicular access, including a loader, will be constructed to facilitate sediment removal from the ponds. Care will be taken to ensure that riparian and wetland vegetation is not significantly disturbed. It is not appropriate or environmentally sound to construct a paved access point. Nor is it practical or appropriate to notify the IDFG and USFWS whenever the impoundments, which will be on private property, are to be cleaned.

Item 3

Coconut fiber matting bound with jute is an acceptable material for the erosion control blanket and will be used in place of a biodegradable monofilament netting.

The seed mixture proposed by the applicant was recommended by the Natural Resources Conservation Service. However, the mix recommended by IDF&G, consisting of Idaho fescue, Indian rice grass, western wheat grass, and blue-bunch wheat grass is acceptable and will provide equivalent soil stabilization. In the event one or more of these grasses is unavailable, one of the following species will be substituted: Smooth brome, Hard fescue, or Alfalfa (as recommended by the NRCS).

IDF&G also recommends incorporation of willow cuttings into rip-rapped areas. Willow will be incorporated into the rip-rap on the upstream face of both embankments. However, no vegetation should be incorporated into the rip-rap which is an integral part of the hydraulic structures, as it may impair the operation. Properly designed rip-rap in the controlled environment of a hydraulic structure is entirely adequate for erosion control.

Item 4

Typical operation of the hydropower plant will involve diversion of most or all of the surface flow in the Kastelu Drain. The discharge in the reach between the forebay and the powerhouse will therefore typically be small, but the springs which feed this reach will not be affected by the project. The springs will continue to be fed from subsurface irrigation return flow and by seepage from the project impoundments. The impact on the vegetative community from the diversion cannot be analytically determined with certainty; however, the impact is likely to be slight, since most of the vegetation along the drain is sustained by subsurface water which is at or near the surface and which will not be affected by the project.

Sincerely,

Charles G. Brockway