

ANNUAL REPORT

FISCAL YEAR 1989

National Fish Hatchery

Station

Hagerman, Idaho

City, State

| | |
|--|----------------|
| <u>Dave Beebe</u> | <u>12/1/89</u> |
| Project Leader | Date |
| <u>Donald H. Suggs</u> | <u>1/19/90</u> |
| Associate Manager/ Deputy Assistant Regional Director | Date |
| <u>John F. Miller</u> | <u>1/19/90</u> |
| Assistant Regional Director | Date |

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Annual Report compiled by Richard Bottomley.

INTRODUCTION

The Hagerman National Fish Hatchery (NFH) is located next to the Snake River in Southern Idaho, (aerial photo in Appendix) approximately 37 miles west of the town Twin Falls; approximately 5 miles southeast of the town Hagerman. The hatchery was authorized by 46 Stat. 371 on May 21, 1930 and was established in 1931. Construction of physical facilities commenced in 1932 and fish production began in 1933. Historically, production from 1933 to 1979 was rainbow trout for stocking in Idaho, eastern Oregon and northern Nevada. In the late 70's rainbow trout production gave way to steelhead trout. A need occurred to mitigate for steelhead losses caused by construction of four dams on the Lower Snake River. To further meet new mitigation demands the hatchery was rebuilt and expanded during June, 1982 thru April, 1984 by the U. S. Army Corps of Engineers.

Presently Hagerman NFH produces steelhead trout for the Lower Snake River Compensation Plan (Public Law 94-587). Rainbow trout are also produced for the Dworshak Reservoir, Idaho to offset lost production at the Dworshak National Fish Hatchery (NFH); due to IHN virus problems at Dworshak NFH.

Major facilities include 102 concrete raceways, two hatchery-rearing buildings with a total of 66 rearing tanks, administration-visitor facility building, combination shop-four stall garage, four residences, oil-paint building, and two general storage buildings.

The hatchery water supplies are spring fed at a constant 59 degree F temperature; flowing at approximately 60 cubic feet per second. Water rights, under Idaho law, are both statutory and constitutional. The State of Idaho is presently going through a complete adjudication of water rights in the Snake River basin which, within a few years, may further refine the hatchery's water rights.

STATION OPERATIONS

Item II of the Service's Fishery Statement of Responsibilities and Roles is "to seek and provide for mitigation of fishery resources adversely impacted by federal water development projects". Hagerman NFH's two production programs, steelhead for the Lower Snake River Compensation Plan and rainbow trout for the Dworshak Reservoir, are in complete compliance with Item II.

Fish Culture Operations

Steelhead Trout

The steelhead production goal of Hagerman NFH is 340,000 lbs. of smolts between 4-5 fish/lb.

Broodyear 1988 eggs were received during May and June, 1988. 1,192,000 "A" strain eggs were received from Idaho Department of Fish and Game Sawtooth State Fish Hatchery and 1,172,000 "B" strain eggs were received from Dworshak NFH. This total equaled 50.4% "A" strain and 49.6% "B" strain. The increase in "B" strain production from previous years was the result of a request by the State Department of Fish and Game. An estimated 10-15% loss of "A" strain eggs occurred due to premature hatch and soft egg disease. The survival of "A" strain steelhead was 71.1% from egg to distribution in April, 1989. During November, 1988 210,644 excess "A's" were distributed to Niagara Springs State Fish Hatchery. The survival of "B" strain steelhead was 79.2% from egg to distribution in April and May. During November 85,381 excess "B's" were distributed to Dworshak NFH. During the months of February, March, April, and May exceptionally high mortality occurred with the "B's". A two-day test treatment of Chloramine-T was given to ten raceways; however, no apparent beneficial effects were observed and treatments were discontinued. Mortality of 97,260 fish (9.96%) occurred from February to May. Soon thereafter fish were diagnosed as having suffered from physiological changes associated with the smoltification process.

Overall feed conversion for all steelhead was 1.37 at a feed cost/lb. of gain of \$0.415. The average cost for a pound of steelhead feed was \$0.304.

Broodyear 1989 steelhead eggs were received during March-June, 1989. 1,491,956 "A" strain eggs were received from Idaho Department of Fish and Game Sawtooth SFH and 2,596,814 "B" strain eggs were received from Dworshak NFH. The large increase in number of "B" strain eggs takes into account an additional program which involved rearing some of Dworshak NFH production fish at Hagerman NFH until they were approximately 30 fish/lb. The program was initiated to eliminate high IHN virus-caused mortality which has been occurring to fish at Dworshak NFH during early stages of culture. Fish were returned to Dworshak NFH between August 29 and September 8, 1989. 1,626,432 fish were returned weighing 48,995 lbs. at 33.20 fish/lb. Sizes ranged from 21.2 to 59.0 fish/lb. for the three lots. Survival rate from eyed egg to distribution of these fish was 85.9%

During September 238,255 "A" strain steelhead weighing 3,550 lbs. at 67 fish/lb. were excessed. Fish were transported to Lyons Ferry State Fish Hatchery, Washington by Washington Department of Fisheries personnel. (An additional 93,023 excess "A's" weighing 2,900 lbs. at 32 fish/lb. went to Lyons Ferry SFH in early October; Fiscal Year 1990).

At the end of Fiscal Year 1989 survival rate of "A" strain steelhead was 97.5% and 82.9% for the "B" strain.

Distribution

Steelhead Trout

The distribution of production smolts (FY 88) was completed, without any major problems, between April 7 and May 8, 1989. A total of 1,478,830 smolts, weighing 299,425 lbs. at 4.94 fish/lb., were trucked to the Salmon and Clearwater river drainages. A total of 2,032 transportation mortalities occurred which consisted primarily of "B's". As noted previously these fish were in poor health before being transported. Steelhead distribution required 62 trips totaling 28,962 miles. A photograph of Salmon River releases is in the Appendix.

Fish Culture Operations

Rainbow Trout

Dworshak NFH contracts with Hagerman NFH to produce approximately 200,000 rainbow trout at 5-6 inches length for the Dworshak Reservoir. Dworshak Fisheries Assistance Office arranged for Arlee and Shasta strain rainbow trout eggs to be shipped to Hagerman NFH from Ennis NFH, Montana. 131,400 Arlee strain eggs were received December 28, 1988 and 136,773 Shasta strain eggs were received January 4, 1989. On April 25 the Arlee strain rainbows were diagnosed as having enteric redmouth disease. Consequently, even though mortalities were low, all rainbows were put on a medicated (terramycin) diet.

Survival rate for the Arlee rainbows from egg to distribution was 88.5% and the Shasta rainbows egg to distribution survival was 94.4%. Feed conversion for both lots was 1.04 at a feed cost/lb. of gain of \$0.332. The average cost for a pound of rainbow feed was \$0.32.

Distribution

Rainbow Trout

Rainbow trout distribution occurred between June 1 and June 8, 1989. A total of 245,380 rainbows weighing 23,200 lbs. at 10.58 fish/lb. were distributed. The distribution required seven trips totaling 4,514 miles. The trucks were put onto a Corps of Engineers barge which was then driven out onto Dworshak Reservoir where the fish were released. (See photos in Appendix).

STATION CYCLICAL MAINTENANCE/CONSTRUCTION

Cyclical Maintenance/Rehabilitation

| <u>Item</u> | <u>Cost</u> |
|---------------------|-------------|
| Residence Draperies | \$ 3,483.00 |
| | <hr/> |
| Total | \$ 3,483.00 |

Equipment Purchases

| <u>Item</u> | <u>Cost</u> |
|-------------------------|-------------|
| Canon FAX | 2,207.00 |
| Lawn Mower/Leaf Mulcher | 12,010.00 |
| | <hr/> |
| Total | \$14,037.00 |

Experiments/Studies

Fin Erosion Study

This study which tested the effects of an antibiotic (Romet-B) and a bactericide (Chloramine-T) on dorsal fin erosion, was initiated during Fiscal Year 1988 and conducted in cooperation with the adjacent Tunison Research Laboratory. Results indicated that Chloramine-T reduced, but did not prevent fin degradation. Also Romet-B reduced dorsal fin erosion but slowed growth of the fish. Dorsal fin percentages at the conclusion of the study were:

| | Control | Chloramine-T | Romet-B | Raceway 55 | Wild Steelhead |
|-------|---------|--------------|---------|------------|----------------|
| Fin % | 3.54 | 4.20 | 3.93 | 2.79 | 11.8 |

$$\text{Fin \%} = \text{Dorsal Length} \times 100 / \text{Total fish length}$$

Neither of the treatments prove to be practical on a production-scale basis.

Riley Creek Water Chemistry

Prior to Fiscal Year 1989 concern had been raised by Idaho Department of Fish and Game officials on the impact Hagerman NFH effluent water might have on the production of fish at the Hagerman SFH; located approximately one mile downstream from Hagerman NFH on Riley Creek. It was agreed by Idaho Fish and Game, and Fish & Wildlife Service personnel to examine several water quality parameters to determine if dangerous levels of fish wastes were being emitted from Hagerman NFH into Riley Creek; a water source for Hagerman SFH. Monitoring occurred during the months of January through May. Results indicated that several of the parameters examined (total hardness, pH, temperature, and dissolved oxygen) were at or very near optimum concentrations. Also, it was found that total and unionized ammonia concentrations were well below the accepted dangerous concentration. However, once under the influence of pH and temperature changes, which sometimes occur in Riley Creek, unionized ammonia concentrations did exceed the accepted safe concentration for a short period of time.

Training

Hagerman NFH actively participated in the Region One Fishery Employee Development Program. Fiscal Year 1989 participants were Jan Rowan, Kerry Grande, Kathy Clemens and Richard Bottomley. Addition training received by hatchery staff included:

| | | | |
|---------------------|--|--------------------|-----------|
| Dave Bruhn, Manager | Equal Employment Opportunity | July 31 - August 1 | Boise, ID |
| | Recent Changes in the Tort Claims Act & Effect on Employee Liability | April 16 | Boise, ID |

| | | | |
|---|--|---------------------------|-------------|
| Tom Shaw, Asst. Mgr. | Equal Employment Opportunity | July 31- August 1 | Boise, ID |
| Kathy Clemens, Fishery Biologist | Fish Health Mgmt. & Disease Diagnosis-Long Course | April 24- Sept 15 | Leetown, WV |
| Richard Bottomley, Fishery Biologist | Fish Culture and Fisheries Management - General | May 8- May 26 | Leetown, WV |
| Samuel Martindale Motor Vehicle Operator | Coldwater Fish Culture | January 23- February 3 | Gresham, OR |

Official Visitors

Official visitors to the station included:

Bud Ainsworth, Idaho Department of Fish & Game, Buhl, ID
 Robert Austin, Bonneville Power Administration, Portland, OR
 Joe Banks, U.S. Fish & Wildlife Service, Longview, WA
 Phillip Cerner, Sho-Ban Indian Tribes, Pocatello, ID
 Travis Coley, U.S. Fish & Wildlife Service, Ahsahka, ID
 Ed Crateau, U.S. Fish & Wildlife Service, Boise, ID
 Dan Diggs, U.S. Fish & Wildlife Service, Portland, OR
 Doug Dompier, Columbia River Inter-Tribal Fisheries Council, Portland
 Jack Donahue, U.S. Fish & Wildlife Service, Portland, OR
 Pat Dwyer, U.S. Fish & Wildlife Service, Bozeman, MT
 Tom Frew, Idaho Department of Fish & Game, Hagerman, ID
 Dave Goldthwaite, U.S. Fish & Wildlife Service, Boston, MA
 Dan Herrig, U.S. Fish & Wildlife Service, Boise, ID
 Steve Huffaker, Idaho Department of Fish & Game, Boise, ID
 Bill Hutchinson, Idaho Department of Fish & Game, Boise, ID
 Paul Kucera, Nez Perce Indian Tribe, Lapwai, ID
 Joe Lientz, U.S. Fish & Wildlife Service, Ahsahka, ID
 Mark Maskill, U.S. Fish & Wildlife Service, Ahsahka, ID
 Lennis Matney, Office of Inspector General, Sacramento, CA
 Dave May, Idaho Department of Fish & Game, Hagerman, ID
 Bill Miller, U.S. Fish & Wildlife Service, Ahsahka, ID
 John Miller, U.S. Fish & Wildlife Service, Portland, OR
 Jerry Mowery, Idaho Department of Fish & Game, Wendell, ID
 Wayne Olson, U.S. Fish & Wildlife Service, Ahsahka, ID
 Steve Payne, Office Inspector General, Sacramento, CA
 Tom Rogers, Idaho Department of Fish & Game, Boise, ID
 Robert Smith, U.S. Fish & Wildlife Service, Hagerman, ID
 Scott Spaulding, Sho-Ban Indian Tribes, Fort Hall, ID
 Jon Streufert, U.S. Fish & Wildlife Service, Ahsahka, ID
 Joe Webster, U.S. Fish & Wildlife Service, Washington, D. C.
 Si Whitman, Nez Perce Indian Tribe, Lapwai, ID
 Steve Yundt, Idaho Department of Fish & Game, Boise, ID

FUTURE OUTLOOK

During Fiscal Year 1989 an additional program was initiated which utilized Hagerman NFH rearing facilities. This involved the transport of "B" strain steelhead eggs in March and May from Dworshak NFH to Hagerman's IHN virus-free water. Fingerling steelhead were returned to Dworshak NFH during August and September. It appears that this program will continue during future years until the Dworshak NFH IHN virus problem is resolved.

HATCHERY PRODUCTION SUMMARY (Intensive Culture)

| Station: Hagerman, ID NFH | | Period Covered: October 1, 1988 through September 30, 1989 | | | | | | | | | |
|-------------------------------|---------------------------------|--|--------|------|------|--------------------------|---------|---------|------------|------------------|--|
| Species/Strain and Lot Number | Fish on Hand Last Day of Period | | | | | To Date This Fiscal Year | | | | | |
| | Number | Weight | Length | D.I. | F.I. | Weight Gain | Pounds | Costs | Conversion | Percent Survival | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
| STT/B 8-DW-31 | 0 | 0 | 0 | 0 | 0 | 60,603 | 99,485 | 29,364 | 1.64 | 84.5 | |
| STT/B 8-DW-32 | 0 | 0 | 0 | 0 | 0 | 82,260 | 127,410 | 38,108 | 1.55 | 88.2 | |
| STT/A 8-UID-33 | 0 | 0 | 0 | 0 | 0 | 117,539 | 153,365 | 45,456 | 1.30 | 93.5 | |
| RBT/Arlee 9-En-34 | 0 | 0 | 0 | 0 | 0 | 11,243 | 12,524 | 3,952 | 1.11 | 106.3 | |
| RBT/Shasta 9-En-35 | 0 | 0 | 0 | 0 | 0 | 11,884 | 11,443 | 3,737 | .96 | 103.1 | |
| STT/B 9-DW-36 | 138,782 | 8,739 | 5.5 | .09 | .32 | 37,610 | 40,977 | 13,044 | 1.09 | 95.6 | |
| STT/B 9-DW-37 | 149,390 | 5,401 | 4.6 | .07 | .27 | 11,411 | 12,385 | 4,042 | 1.17 | 89.5 | |
| STT/B 9-DW-38 | 238,431 | 7,115 | 4.3 | .06 | .21 | 20,170 | 21,170 | 7,416 | 1.05 | 88.6 | |
| STT/A 9-UID-39 | 1,217,001 | 28,014 | 4.0 | .05 | .21 | 31,053 | 30,373 | 10,030 | .98 | 98.8 | |
| Totals/Averages | 1,743,604 | 492,69 | | | | 383,773 | 509,132 | 155,149 | 1.33 | 93.1 | |

*Indicates inventory gain from initial feeding.

FISH HEALTH ACTIVITIES SUMMARY -
NATIONAL FISH HATCHERY

Fiscal Year: 19 89

Station: Hagerman, ID NFH

| 1 Problem/Incident/Activity | 2 Species | 3 Therapeutic Treatment | 4 Results/Comments |
|--------------------------------|-----------------|---|---------------------------------|
| Enteric Redmouth (ERM) | Rainbow Trout | Terramycin medicated feed @ 3.75g/100 lb. fish for 10 days | Disease eliminated |
| Enteric Redmoutn (ERM) | Steelhead Trout | Romet-30 (1.68%) medicated feed, fed at 1% body weight for seven days | Disease eliminated |
| Myxobacteria/Experimental | Steelhead Trout | Chloramine-T 6ppm/hr Two treatments | No beneficial effects observed. |
| | | | |
| | | | |
| | | | |

Chemical Summary:

| | | | |
|---------------------|---------------------------|--------------------------------|---------------------|
| Chemical: Argentyne | Purpose: Egg Disinfection | Total Amount Used: 4.4 gallons | Total Cost: \$97.09 |
| HTH | Fish Removal-Riley Lake | 15 lbs | \$17.85 |
| Sodium Thiosulfate | Neutralize-Riley Lake | 150 lbs | \$78.00 |

Station: Hagerman, ID NFH

OPERATIONS/MAINTENANCE COST DATA

Fiscal Year: 1989

| Funding Source | | | | |
|---------------------------------------|---------------------------------------|----------------------------------|--------------------|--|
| Operations (Fisheries) (4710) 1 | Cyclical Maintenance (Fisheries) 2 | Quarters Maintenance (8610) 3 | Other Funding 4 | |
| 291,329 | | | | |
| 13,499 | | | | |
| | | | | |
| | | | | |
| 3,617 | | | | |
| 8,360 | | | | |
| 205 | | | | |
| -0- | | | | |
| -0- | | | | |
| | | | | |
| 11,578 | | | | |

1. Salaries, Permanent (Including Benefits):

2. Salaries, Temporary (Including Benefits):

3. Operating Costs:

A. Utilities

1. Telephone

2. Electricity

3. Heating Oil

4. Natural Gas

5. Other

B. Vehicle Maintenance

1. Distribution Vehicles

Total Mileage: 49,394

OPERATIONS/MAINTENANCE COST DATA

Fiscal Year: 19 89

Station: Hagerman, ID NFH

| | Funding Source | | | |
|---------|---------------------------------|------------------------------------|-------------------------------|-----------------|
| | Operations (Fisheries) (4710) 1 | Cyclical Maintenance (Fisheries) 2 | Quarters Maintenance (8610) 3 | Other Funding 4 |
| 436 | | | | |
| 10,924 | | | | |
| 123,174 | | | | |
| 3,328 | | | | |
| -0- | | | | |
| -0- | | | | |
| 10,000 | | | | |
| 11,937 | | | | |

3. B. Vehicle Maintenance (continued)

2. Non-Distribution Vehicles

Total Mileage: 20,703.

C. Fuel for Vehicles/Equipment

D. Supplies

1. Fish Food

2. Chemicals/Drugs

3. Fertilizer

4. Tags and Tagging Supplies

5. Office Supplies/Custodial/Other Supplies

E. Travel

OPERATIONS/MAINTENANCE COST DATA

Fiscal Year: 1989

Station: Hagerman, ID NFH

| | Funding Source | | | |
|---|--|---|--|-----------------------|
| | Operations (Fisheries) (4710) 1 | Cyclical Maintenance (Fisheries) 2 | Quarters Maintenance (8610) 3 | Other Funding 4 |
| 3. F. Moving Expense | 4,380 | | | |
| G. Miscellaneous (List) | | | | |
| Pickup Canopy | 628 | | | |
| 4. Operations (Total: Lines 1, 2, 3A-G) | 493,335 | | | |
| 5. Vehicles/Equipment Purchased (Over \$1,000) | 14,037 | | | |
| 6. Cyclical Maintenance | 12,475 | | | |
| 7. Quarters Maintenance | -0- | | 6,268 | |
| 8. Total Maintenance (Total: Lines 5, 6, and 7) | 26,512 | | | |
| 9. Column Totals (Total: Lines 4 and 8) | 519,847 | | 6,268 | |
| 10. Total Expenditures (Add Totals of Column 1-4) | \$ 526,115 | | | |

3. F. Moving Expense

G. Miscellaneous (List)

Pickup Canopy

4. Operations (Total: Lines 1, 2, 3A-G)

5. Vehicles/Equipment Purchased (Over \$1,000)

6. Cyclical Maintenance

7. Quarters Maintenance

8. Total Maintenance (Total: Lines 5, 6, and 7)

9. Column Totals (Total: Lines 4 and 8)

10. Total Expenditures (Add Totals of Column 1-4)

REPORT OF STATION PERSONNEL

Fiscal Year: 1989

Station: Hagerman, ID NFH

Part I - Permanent Personnel (FTE's: 8.3)

| Name Of Employee | Functional Title | Grade | Period Worked | Remarks |
|------------------------|--------------------------|-------|-----------------|---------|
| David S. Bruhn | Supv. Fishery Biologist | 12 | 88/10/1-89/9/30 | |
| Harry T. Shaw | Supv. Fishery Biologist | 11 | 88/10/1-89/9/30 | |
| Kathleen M. Clemens | Fishery Biologist (Mgmt) | 9 | 89/1/29-89/9/30 | |
| Richard Bottomley | Fishery Biologist (Mgmt) | 7 | 89/1/29-89/9/30 | |
| Beatrice M. Martindale | Fishery Program Asst: | 6 | 88/10/1-89/9/30 | |
| M. J. Kirsch, Jr. | Maintenance Worker | 8 | 88/10/1-89/9/30 | |
| Michael G. Jacobson | Motor Vehicle Operator | 8 | 88/10/1-89/9/30 | |

Part II - Temporary Personnel (FTE's: .6)

| Name Of Employee | Functional Title | Grade | Period Worked | Remarks |
|------------------|------------------------|-------|----------------------------------|---------|
| Michael Casten | Animal Caretaker | 2 | 88/10/1-89/4/22 | |
| Jack L. Boudreau | Motor Vehicle Operator | 8 | 89/4/6-89/5/6 89/8/28-89/9/12 | |
| Deac Peterson | Motor Vehicle Operator | 8 | 89/4/5-89/5/6 | |
| Dan Feil | Animal Caretaker | 2 | 89/8/15-89/9/30 | |
| | | | | |
| | | | | |

REPORT OF STATION PERSONNEL

PART I - Permanent Personnel

| 1 NAME OF EMPLOYEE | 2 FUNCTIONAL TITLE | 3 GRADE | 4 PERIOD WORKED | 5 REMARKS |
|-----------------------|--------------------------|------------|--------------------|-----------------|
| S. D. Martindale | Motor Vehicle Operator | 8 | 88/10/1-89/9/30 | |
| Brian Clifford | Animal Caretaker | 5 | 88/10/1-89/9/30 | Career Seasonal |
| Jan Rowan | Fishery Biologist (Mgmt) | 9 | 88/10/1-88/10/21 | |
| Kerry Grande | Fishery Biologist (Mgmt) | 5 | 88/10/1-89/1/28 | |

FIVE YEAR HATCHERY PRODUCTION SUMMARY

Station: Hagerman, ID NFH

| | Fiscal Year | | | | |
|---|-------------|-----------|-----------|-----------|-----------|
| | 1989 | 1988 | 1987 | 1986 | 1985 |
| I. Fish Production Data | | | | | |
| Intensive Culture: | | | | | |
| Fish Weight Gain (pounds) | 383,773 | 375,297 | 371,107 | 378,949 | 326,869 |
| Fish Numbers | 1,743,604 | 1,976,914 | 2,087,180 | 1,835,763 | 1,868,700 |
| Percent Survival | 94.1 | 94.7 | 94.1 | 87.3 | 82.1 |
| Feed Conversion | 1.33 | 1.22 | 1.15 | 1.19 | 1.31 |
| Extensive Culture: | | | | | |
| Fish Weight Gain (pounds) | | | | | |
| Fish Numbers | | | | | |
| Percent Survival | | | | | |
| Pounds per Acre | | | | | |
| II. Broodstock Production Data: | | | | | |
| Number of Females Spawmed | | | | | |
| Number of Eggs | | | | | |
| Number of Fish | | | | | |
| III. Management Data: | | | | | |
| Full-Time Equivalents | 8.3 | 8.6 | 8.9 | 9.3 | 9.3 |
| Operational Costs | 493,335 | 449,250 | 506,540 | 441,819 | 400,507 |
| Vehicle/Equipment Costs (Items over \$1,000) | 14,037 | 14,235 | 29,948 | 11,600 | 13,900 |
| Cyclical Maintenance Costs | 12,475 | 55,100 | 36,123 | 24,300 | 19,800 |
| Quarters Costs | 6,268 | 6,851 | 7,100 | 6,500 | 6,900 |

PUBLIC RELATIONS

Station: Hagerman, ID NFH

Fiscal Year: 1989

| 1. Presentations: | Number of Groups | Number of People |
|--------------------------------------|------------------|-------------------|
| On Site | <u>12</u> | <u>360</u> |
| Off Site | <u>1</u> | <u>30</u> |
| 2. Number of Visitors: | | |
| Official | | <u>32</u> |
| Public | | <u>5,000</u> |
| 3. Other Public Relation Activities: | | |
| Type of Activity | | |
| Local Newspaper Releases | | <u>3</u> |
| | | <u> </u> |
| | | <u> </u> |
| | | <u> </u> |

Remarks:

APPENDIX

Photos on next two pages.



Hagerman National Fish Hatchery
(Snake River in upper right)



Steelhead trout releases to Idaho's
Salmon River



Rainbow trout barge releases into
Dworshak Reservoir, Idaho



Rainbow trout barge releases into
Dworshak Reservoir, Idaho