

APPENDIX D

Maps of steelhead redd locations and first observation dates of all redds seen in 1987 and 1989 Sultan River. Additional notations pertain to the chinook spawning survey index areas.

Appendix D-1. 1987 steelhead surveys.

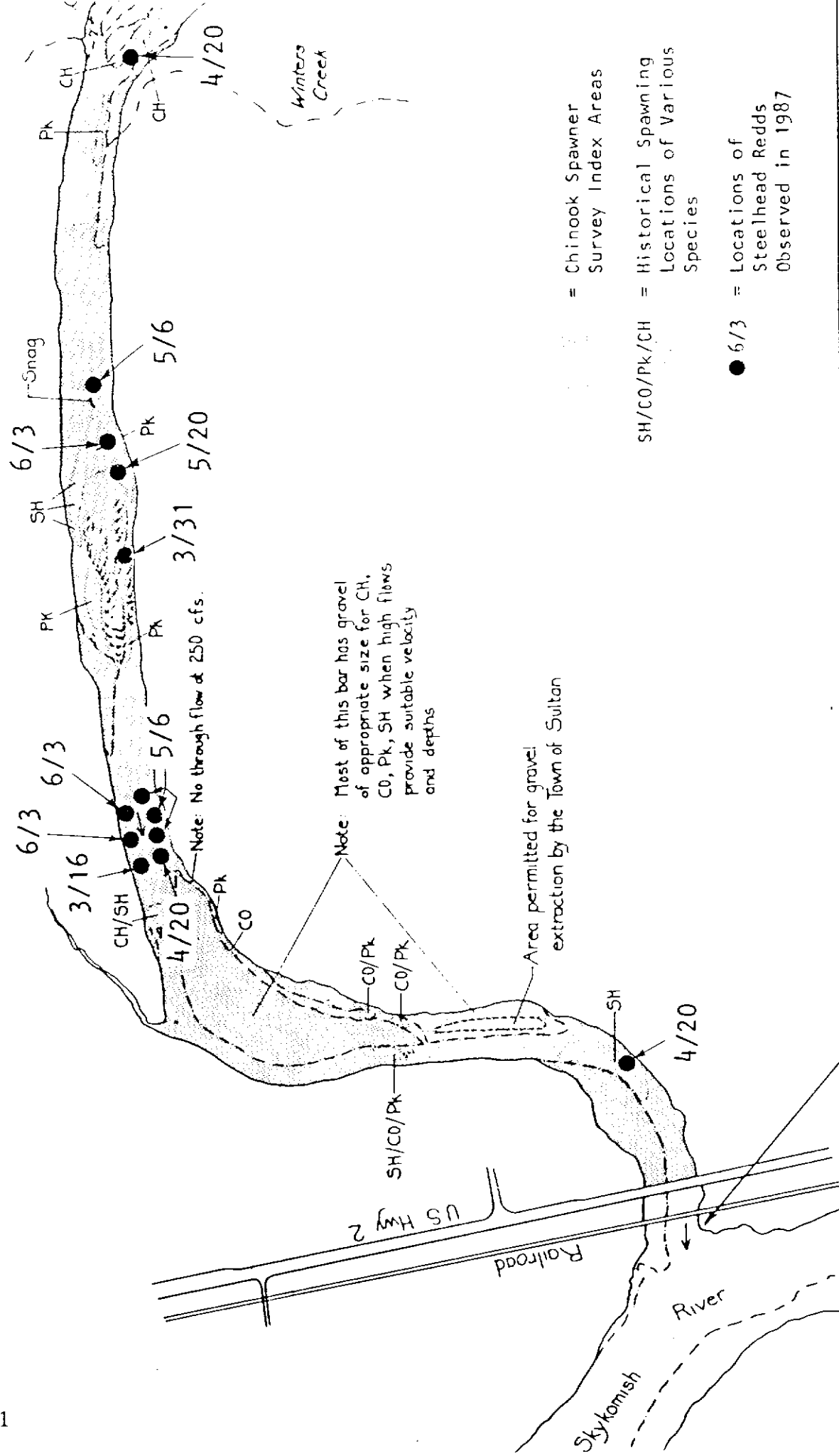
Appendix D-2. 1989 steelhead surveys.

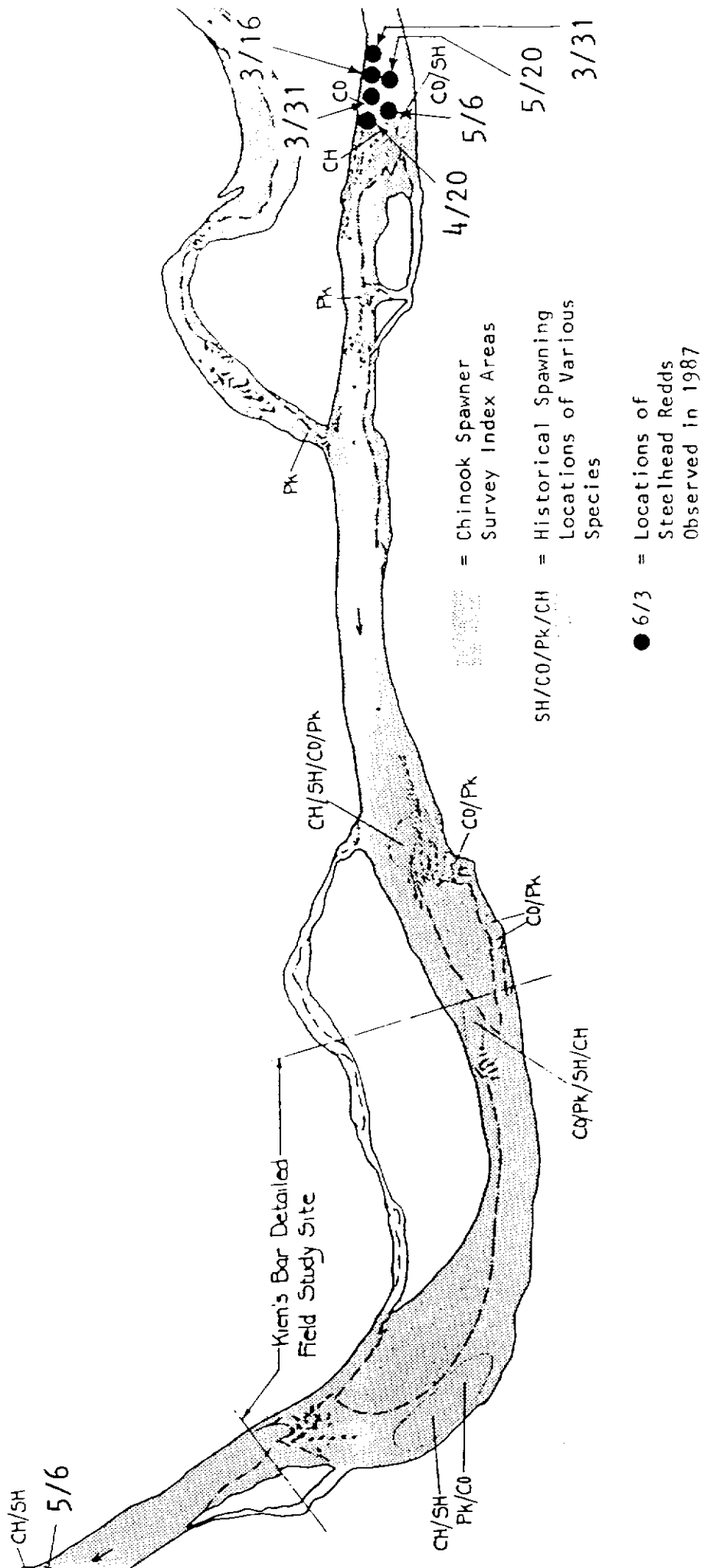
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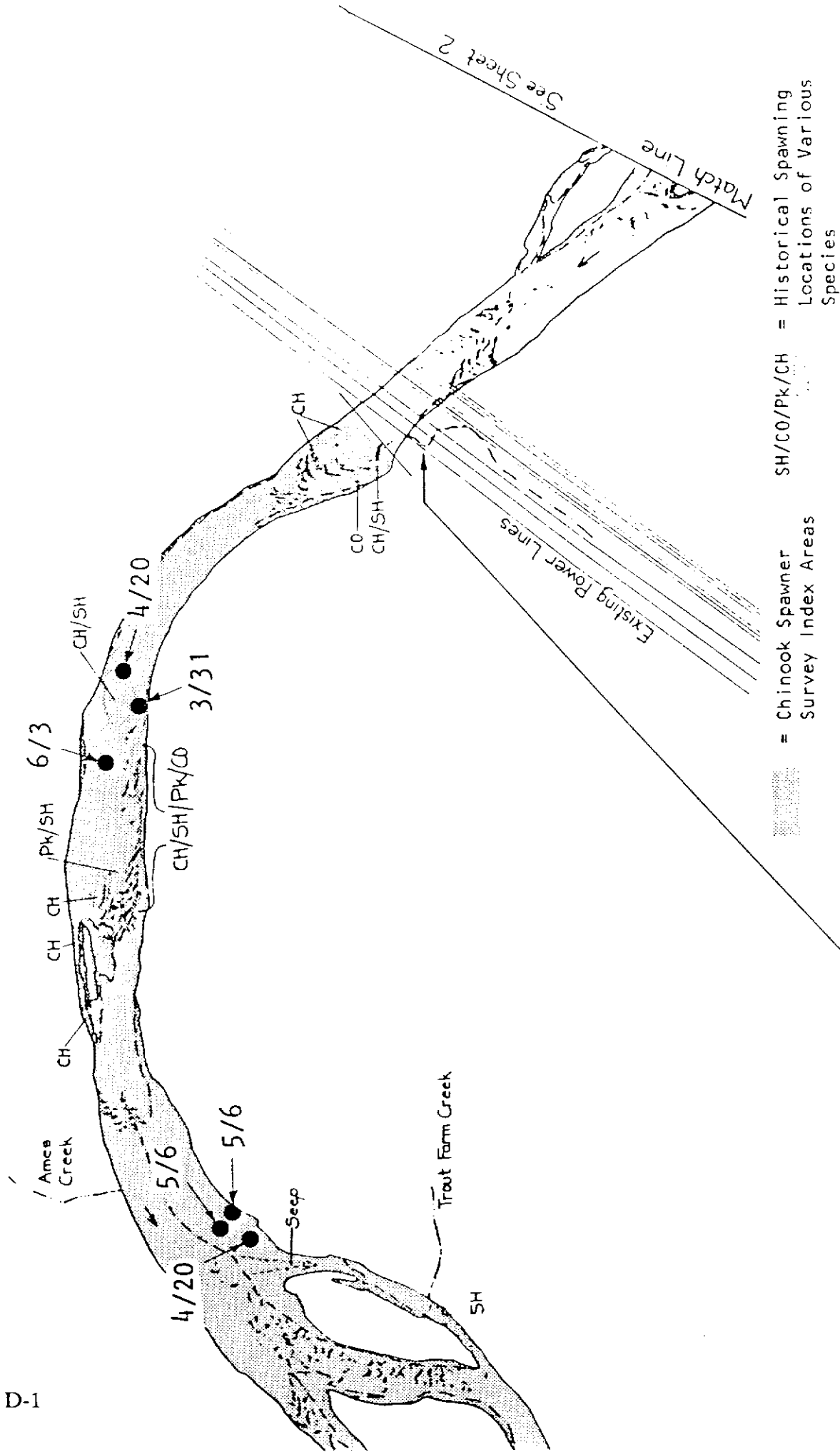
APPENDIX D-1

1987 steelhead survey redd location maps, Sultan River, with notations
pertaining to the chinook spawning survey index areas.

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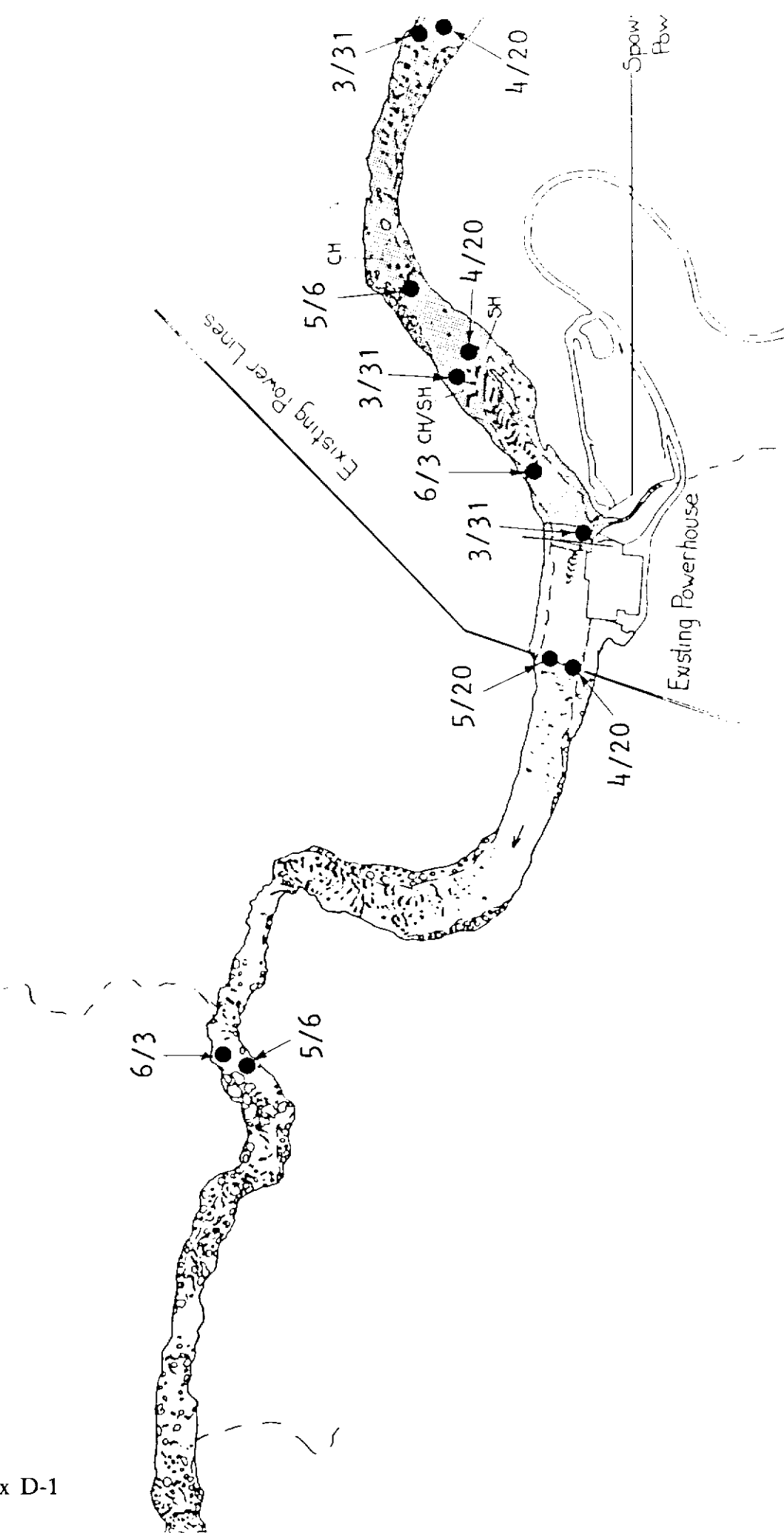


— Spawning Gravel Index Area |
 — River Mouth to BPA Powerlines



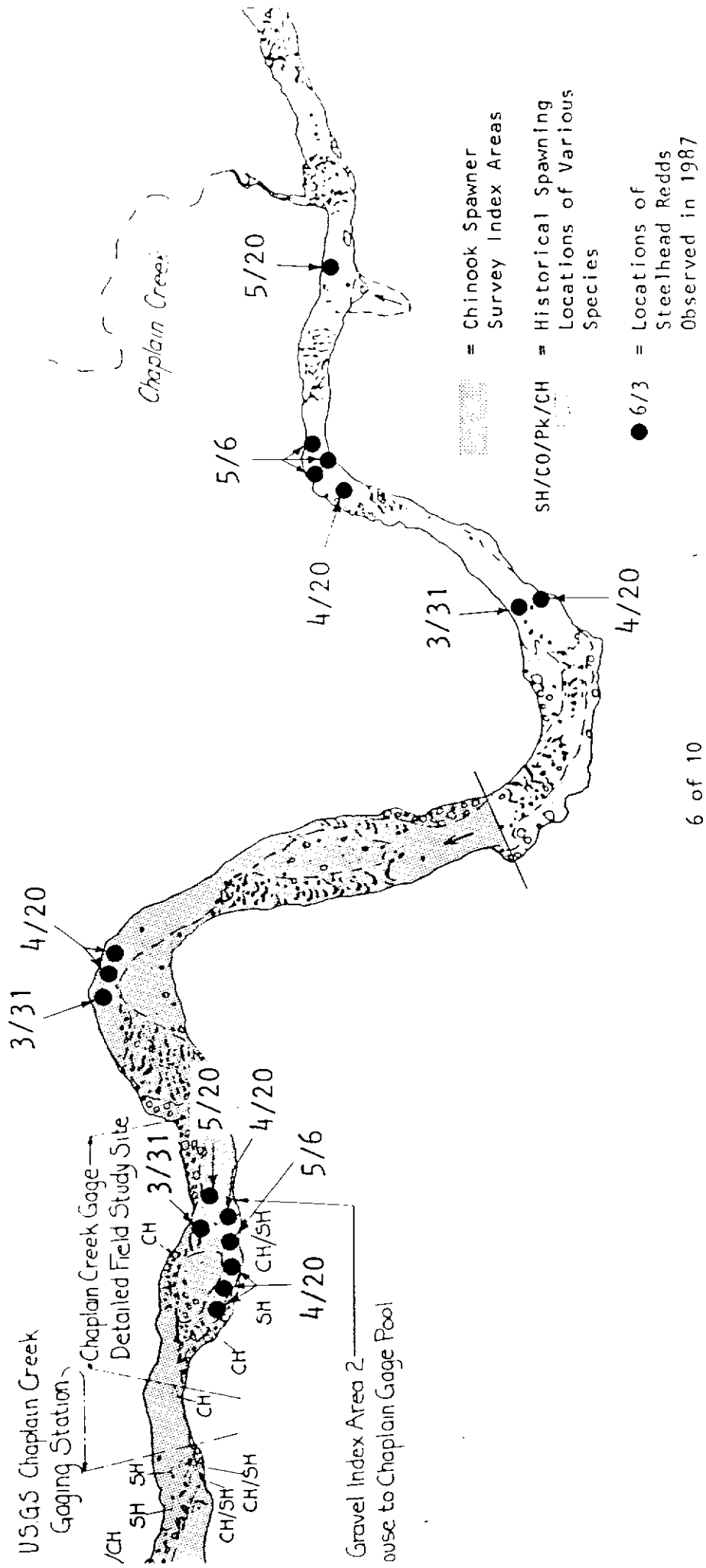
SH/CO/Pk/CH = Historical Spawning
Locations of Various
Species

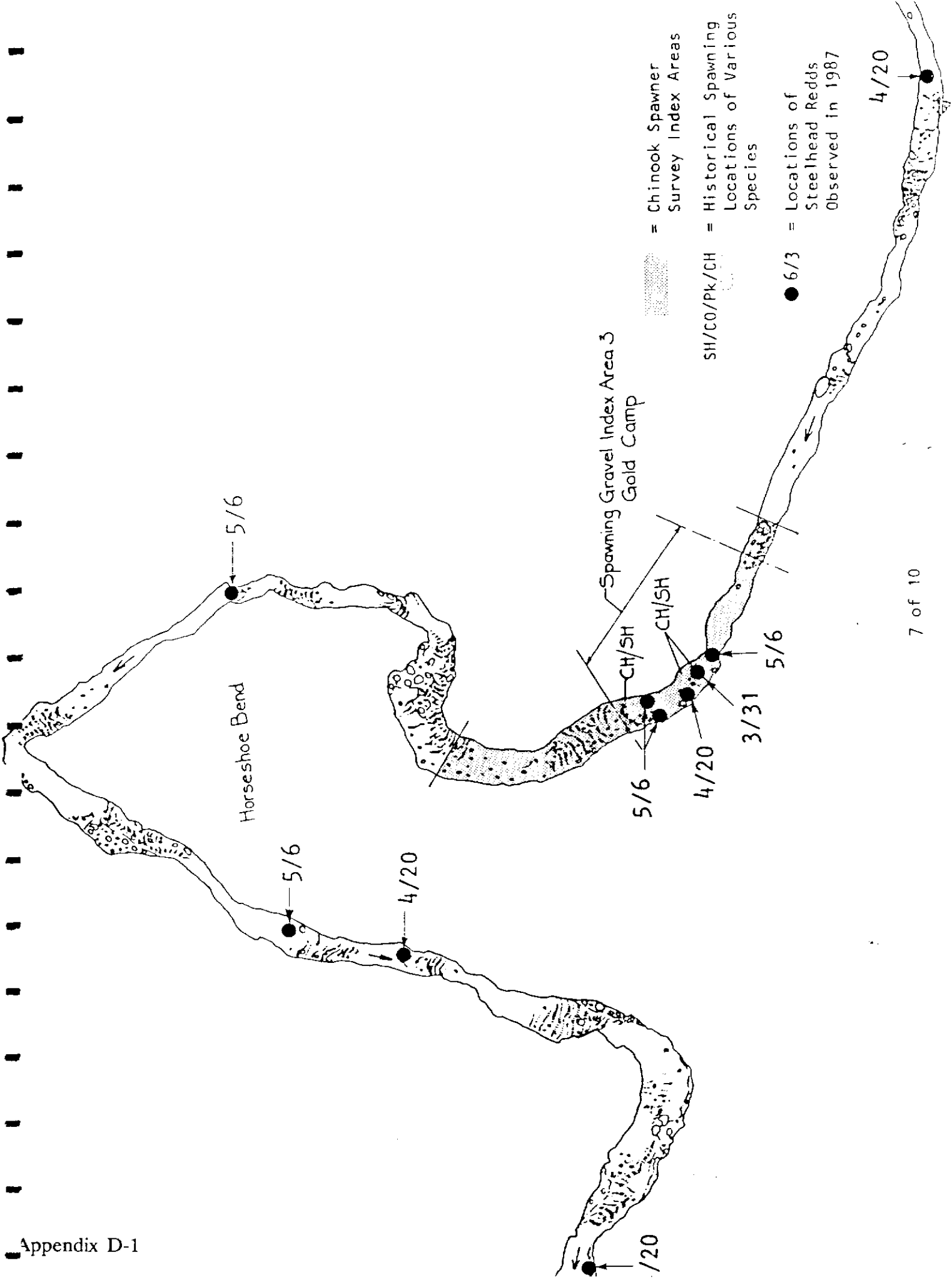
● 6/3 = Locations of
Steelhead Raddis
Observed in 1987



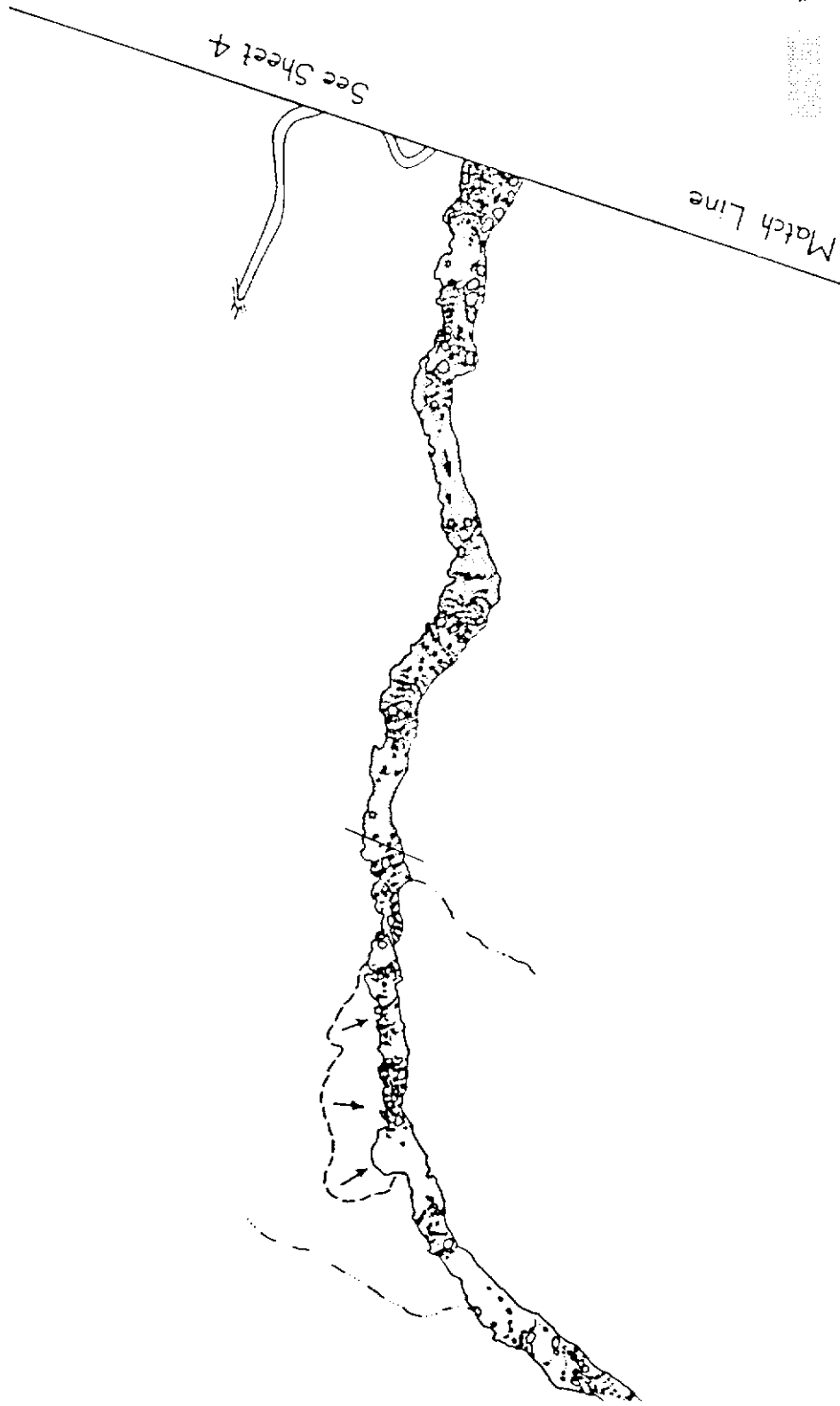
= Chinook Spawner Survey Index Areas
 SH/CO/Pk/CH = Historical Spawning Locations of Various Species

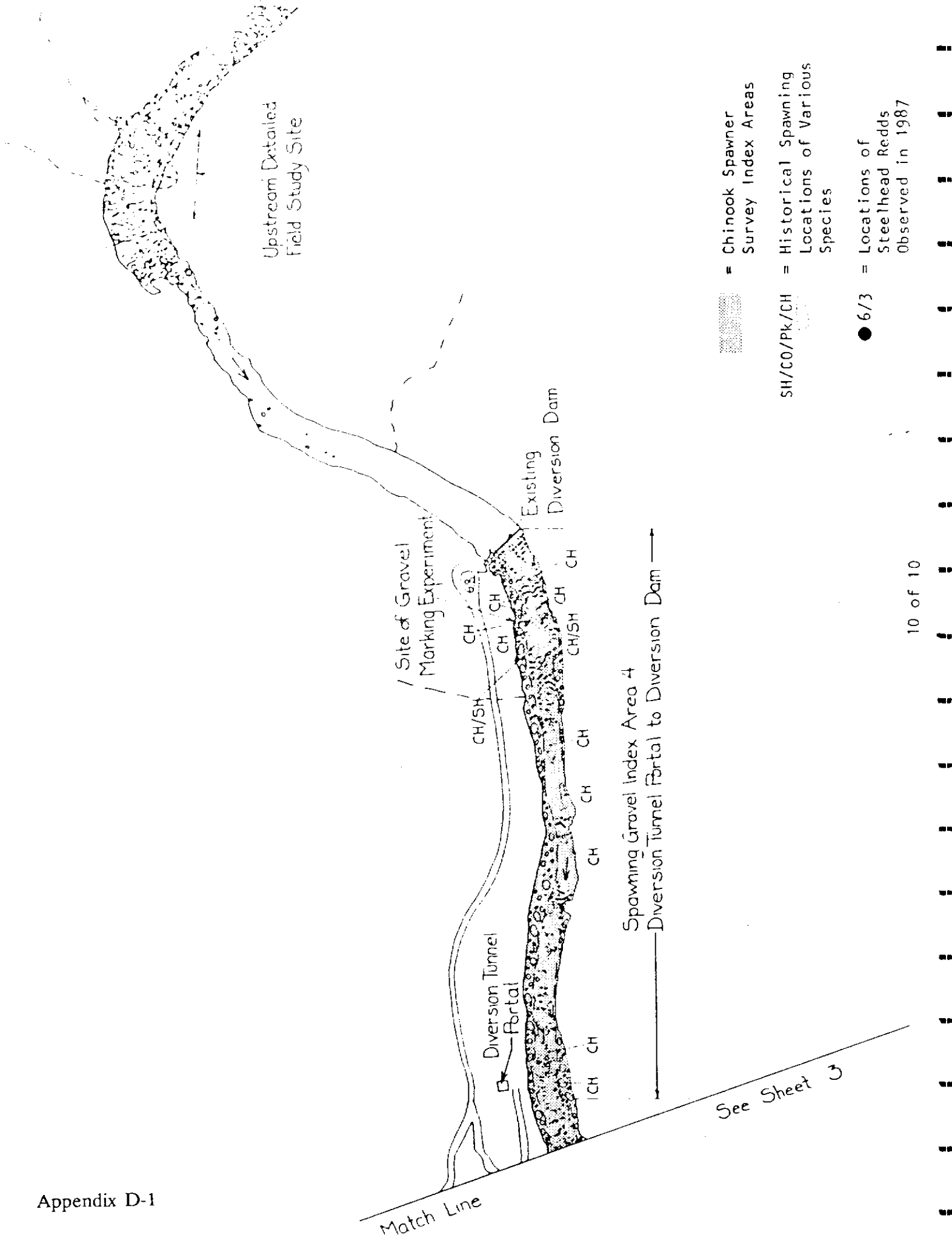
● 6/3 = Locations of Steelhead Redds Observed in 1987







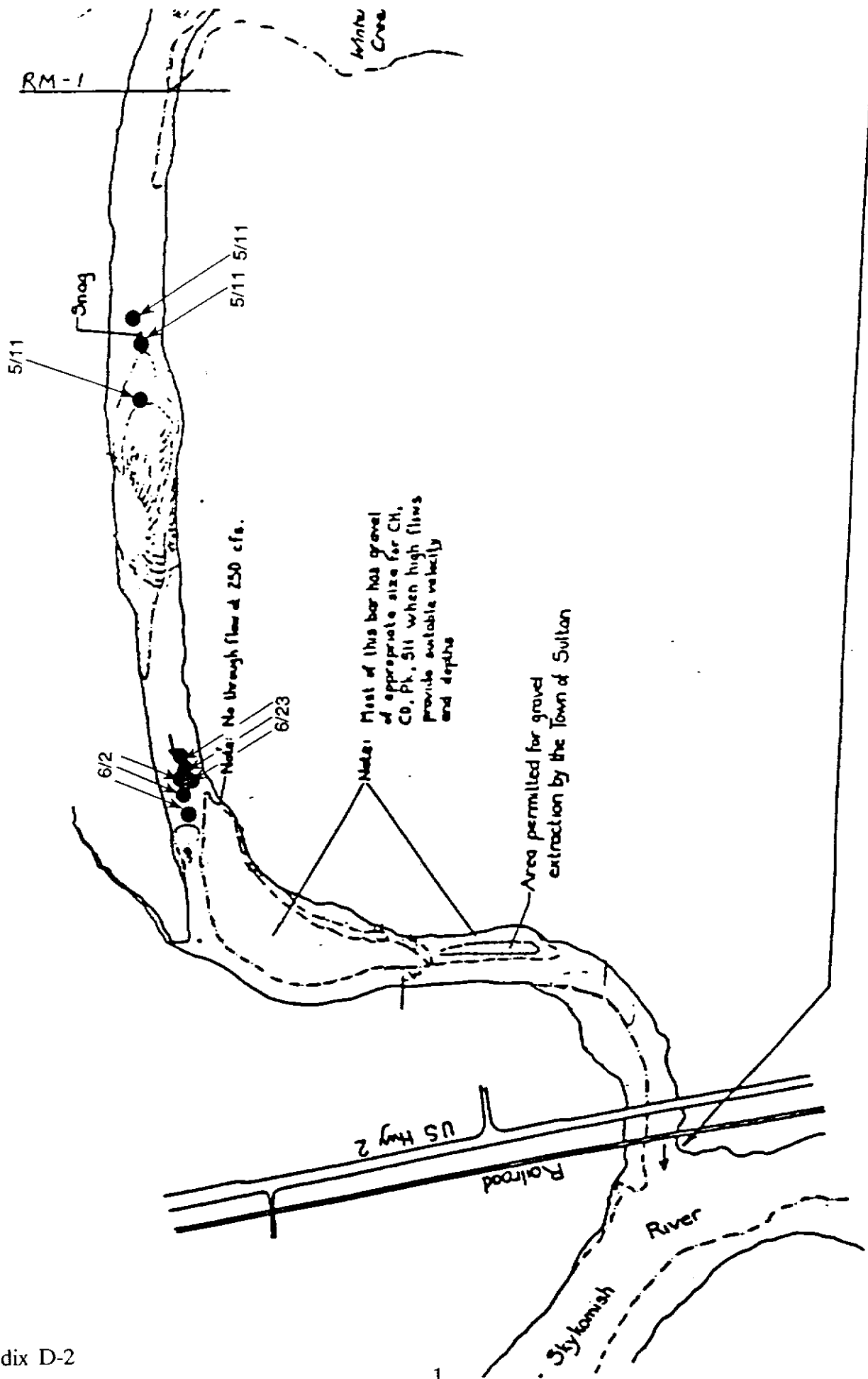




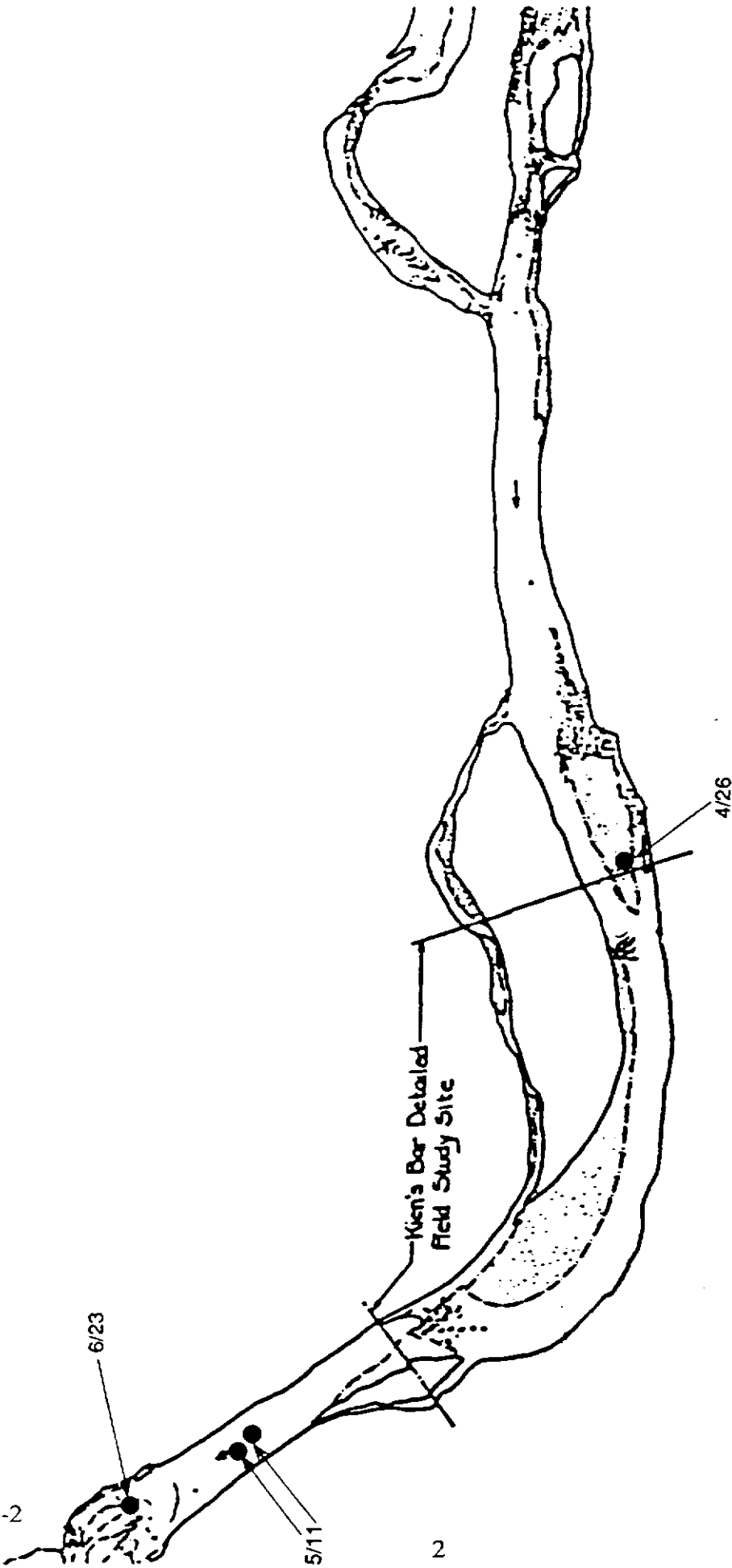
APPENDIX D-2

1989 steelhead survey redd location maps, Sultan River, with notations
pertaining to the chinook spawning survey index areas.

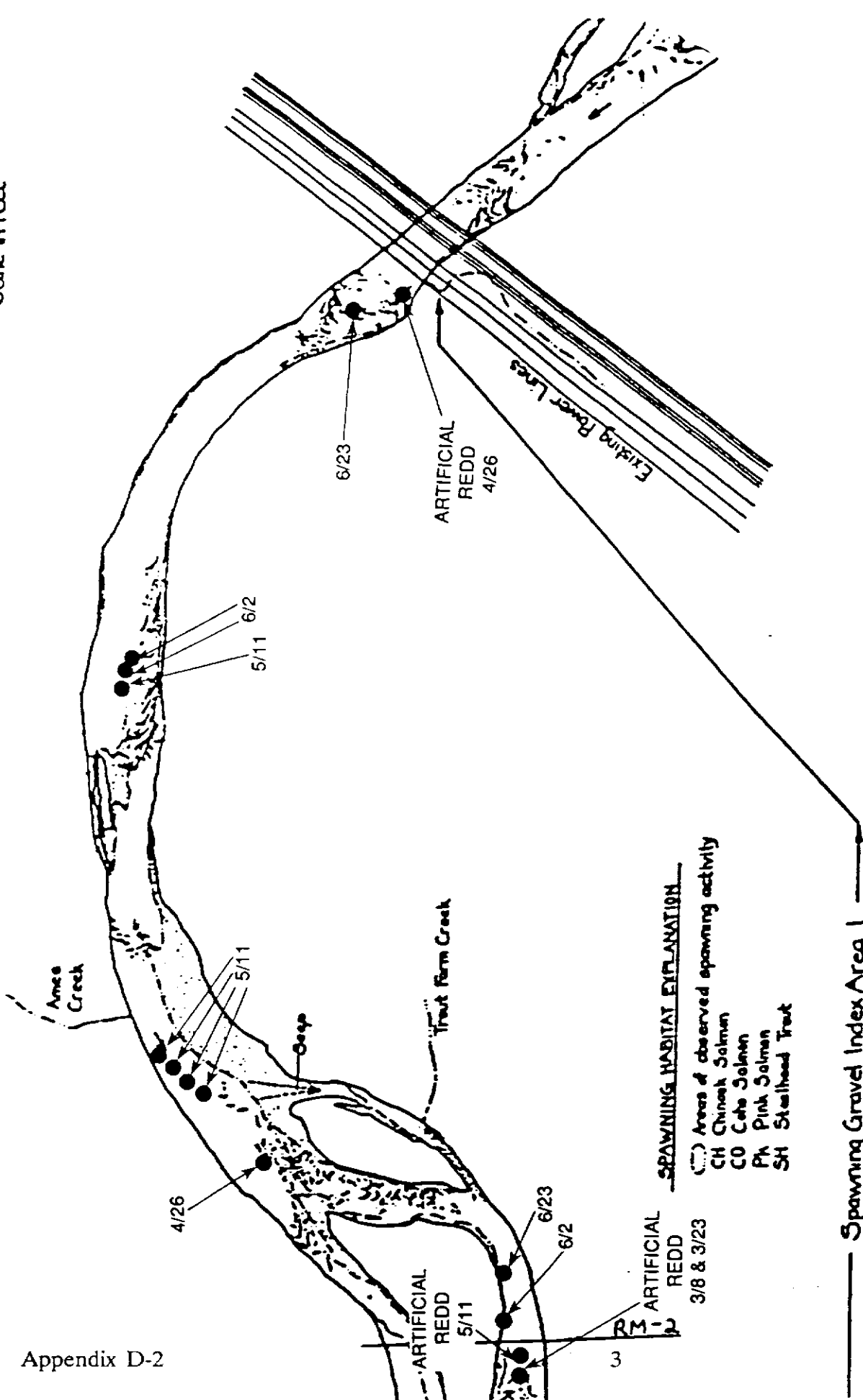
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Scale in Feet



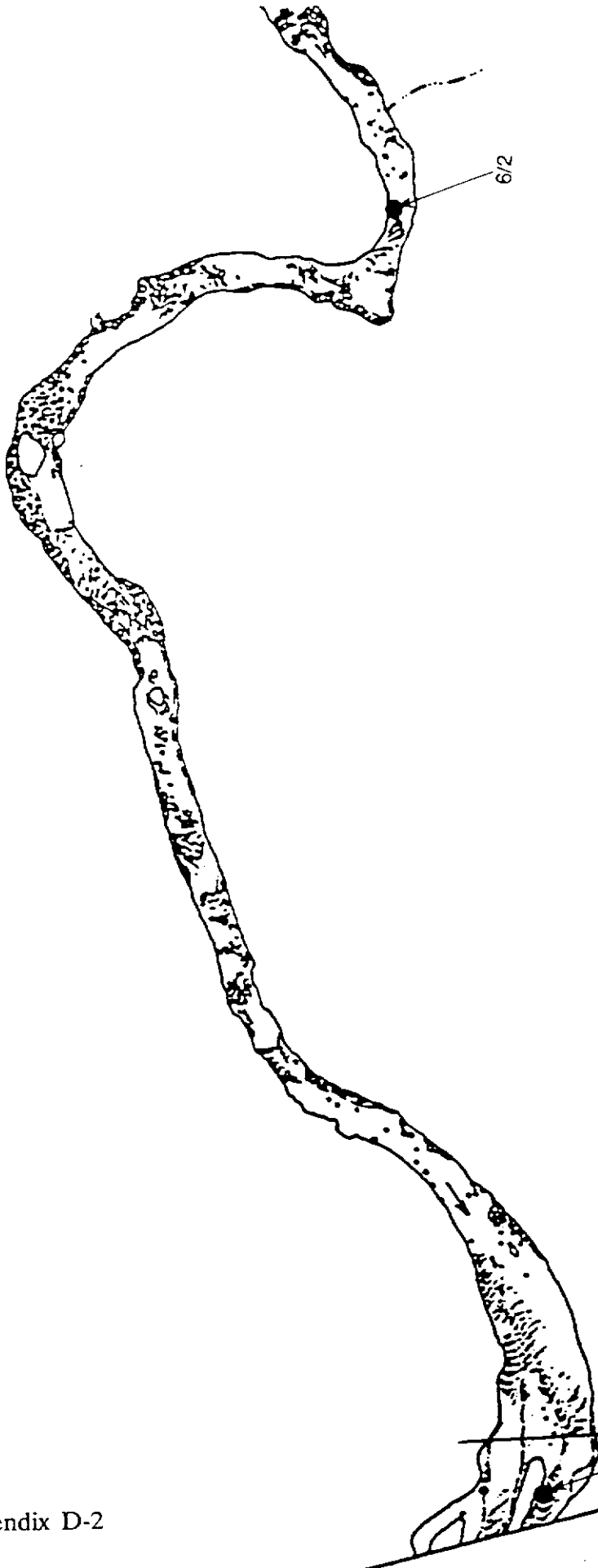
SPAWNING HABITAT EXPLANATION

(●) Areas of observed spawning activity

CH Chinese Salmon
 CO Coho Salmon
 PH Pink Salmon
 SH Steelhead Trout

Spawning Gravel Index Area 1
 River Mouth to BPA Powerlines

Date photo date February 7, 1984
 Flow 191 cfs.



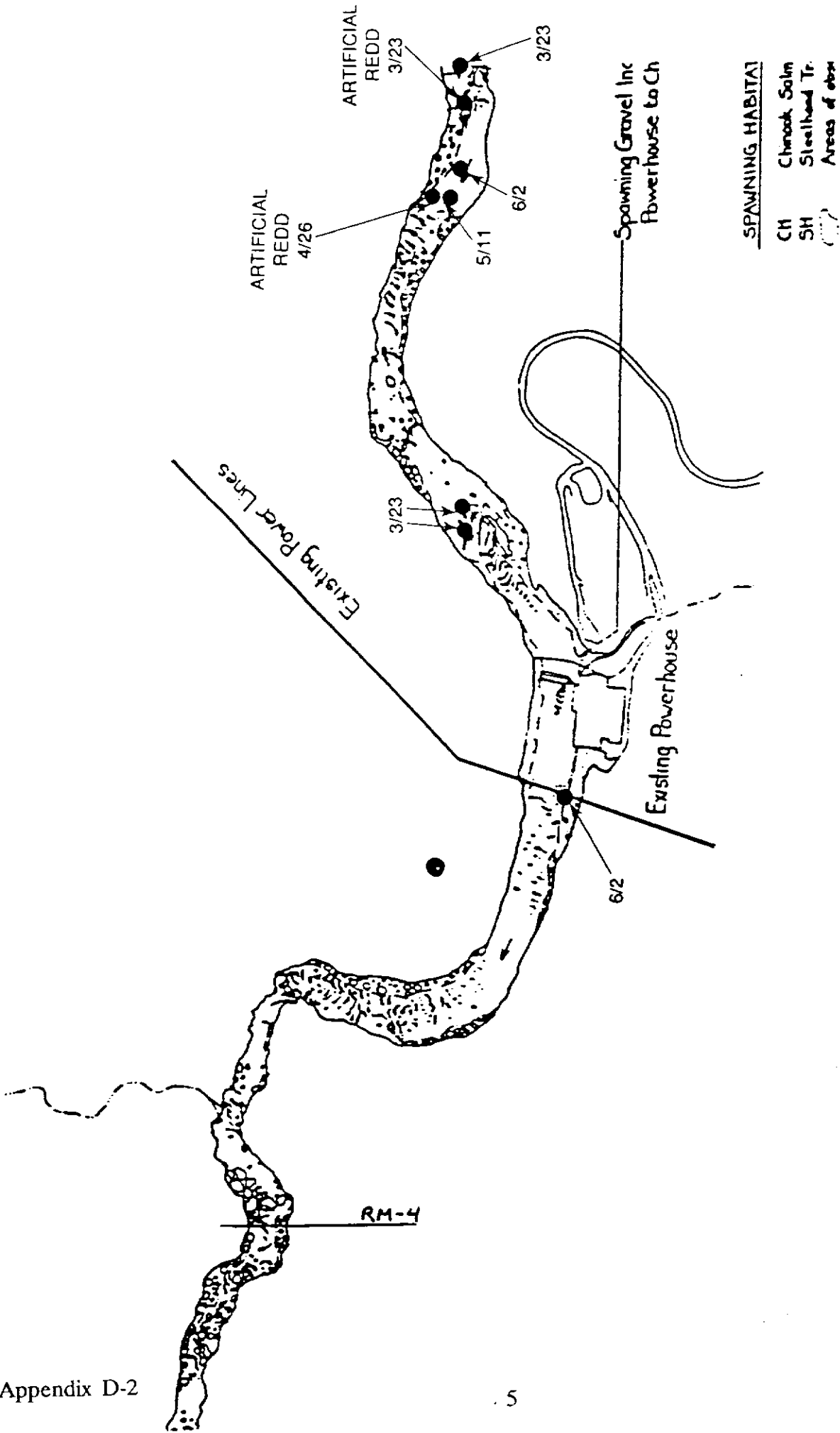
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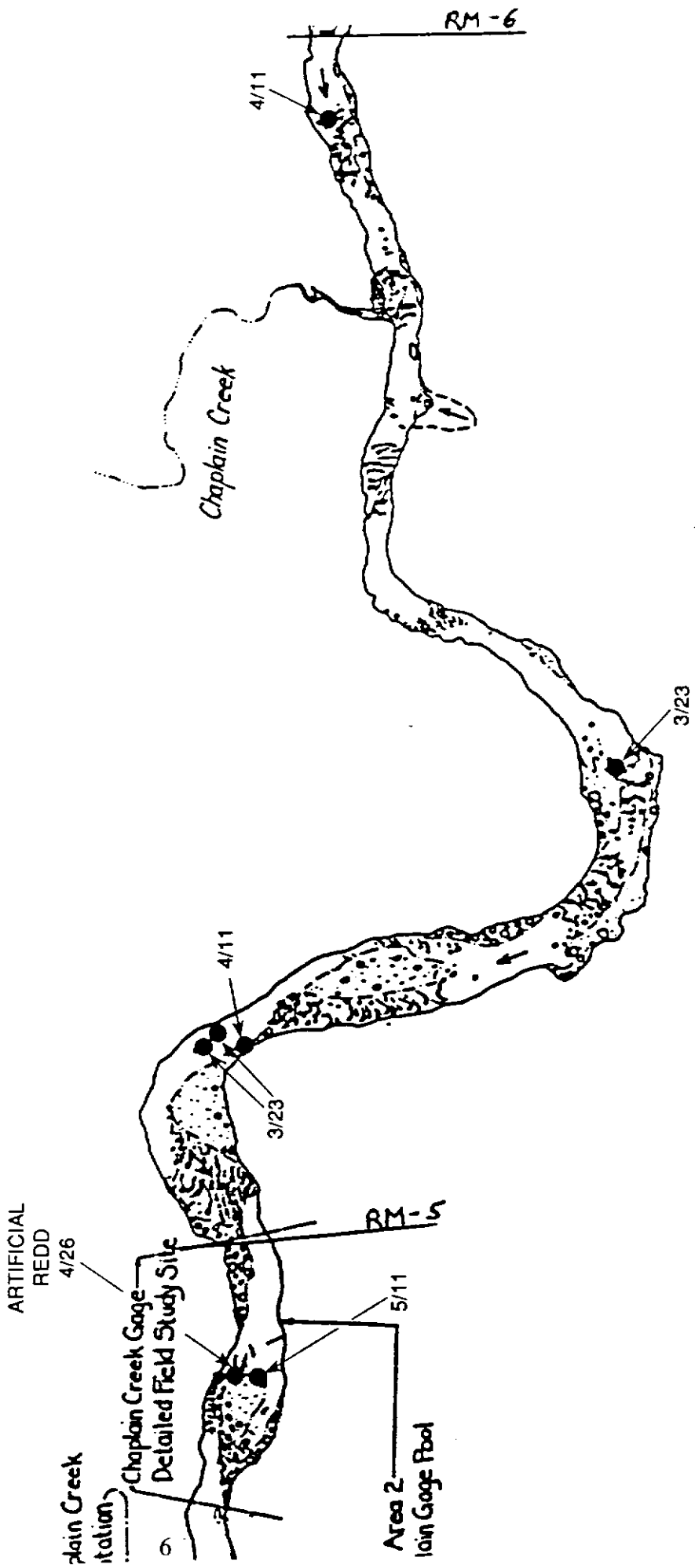
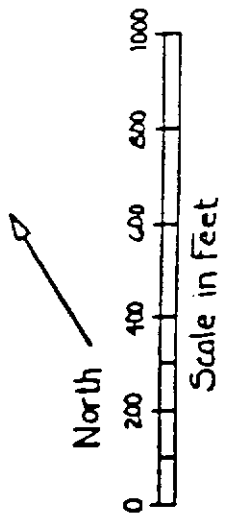
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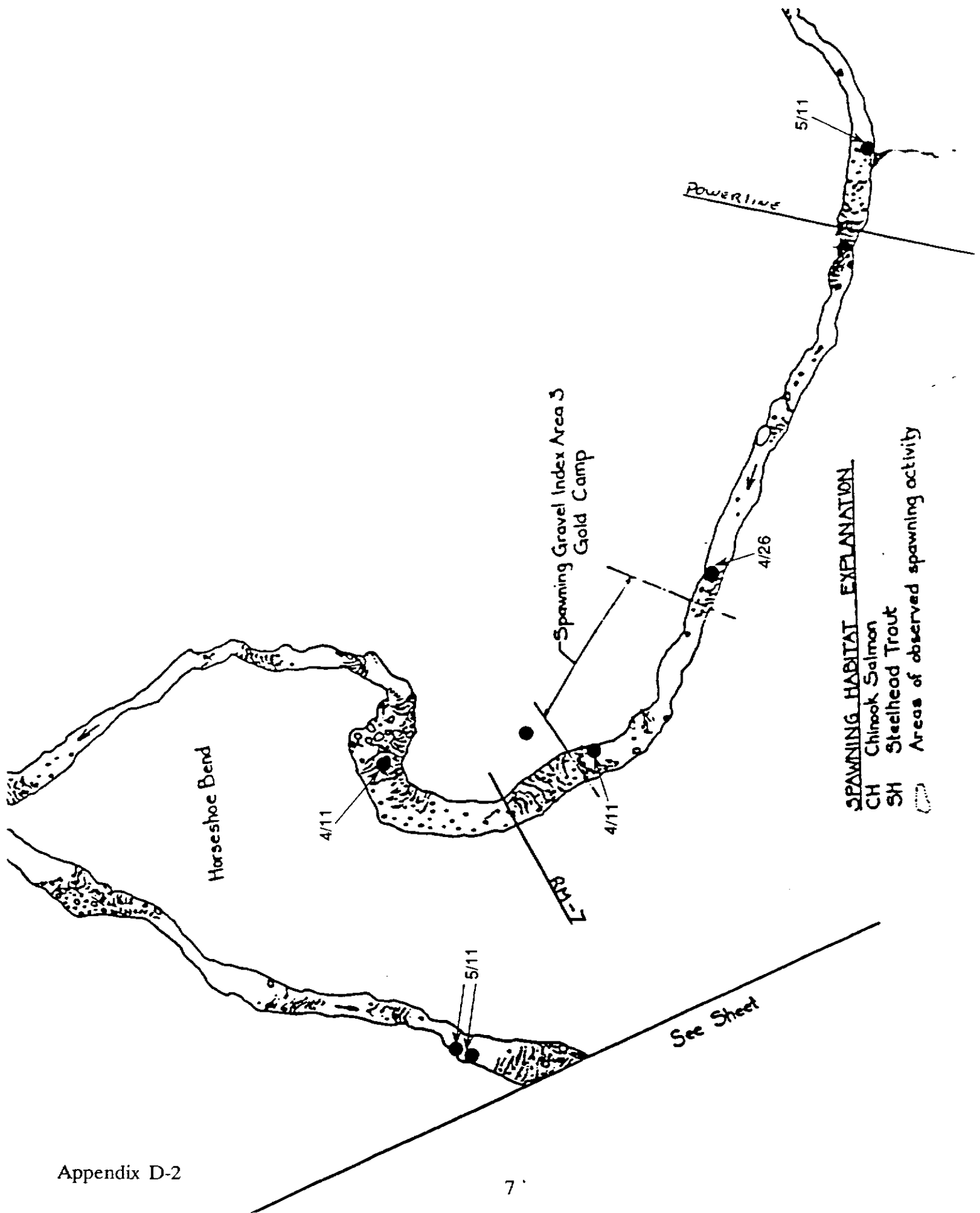
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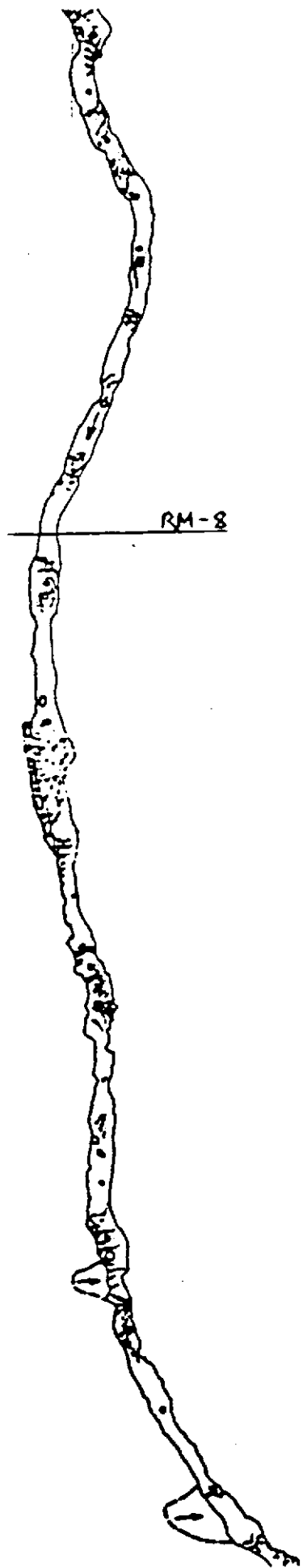
See Sheet

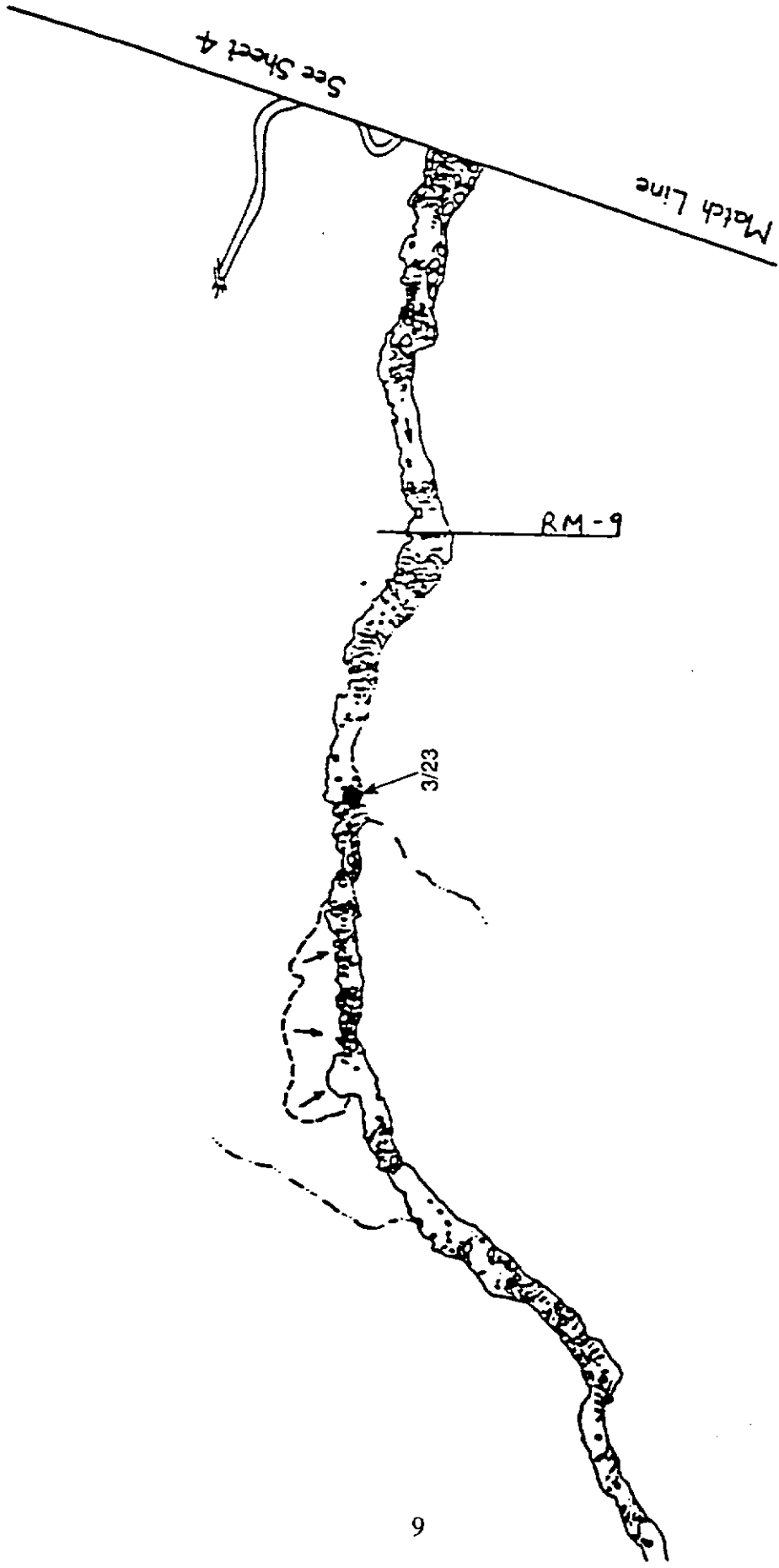
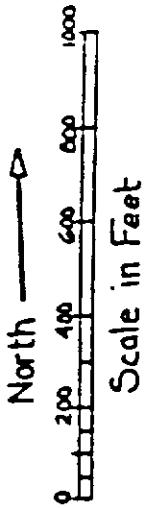
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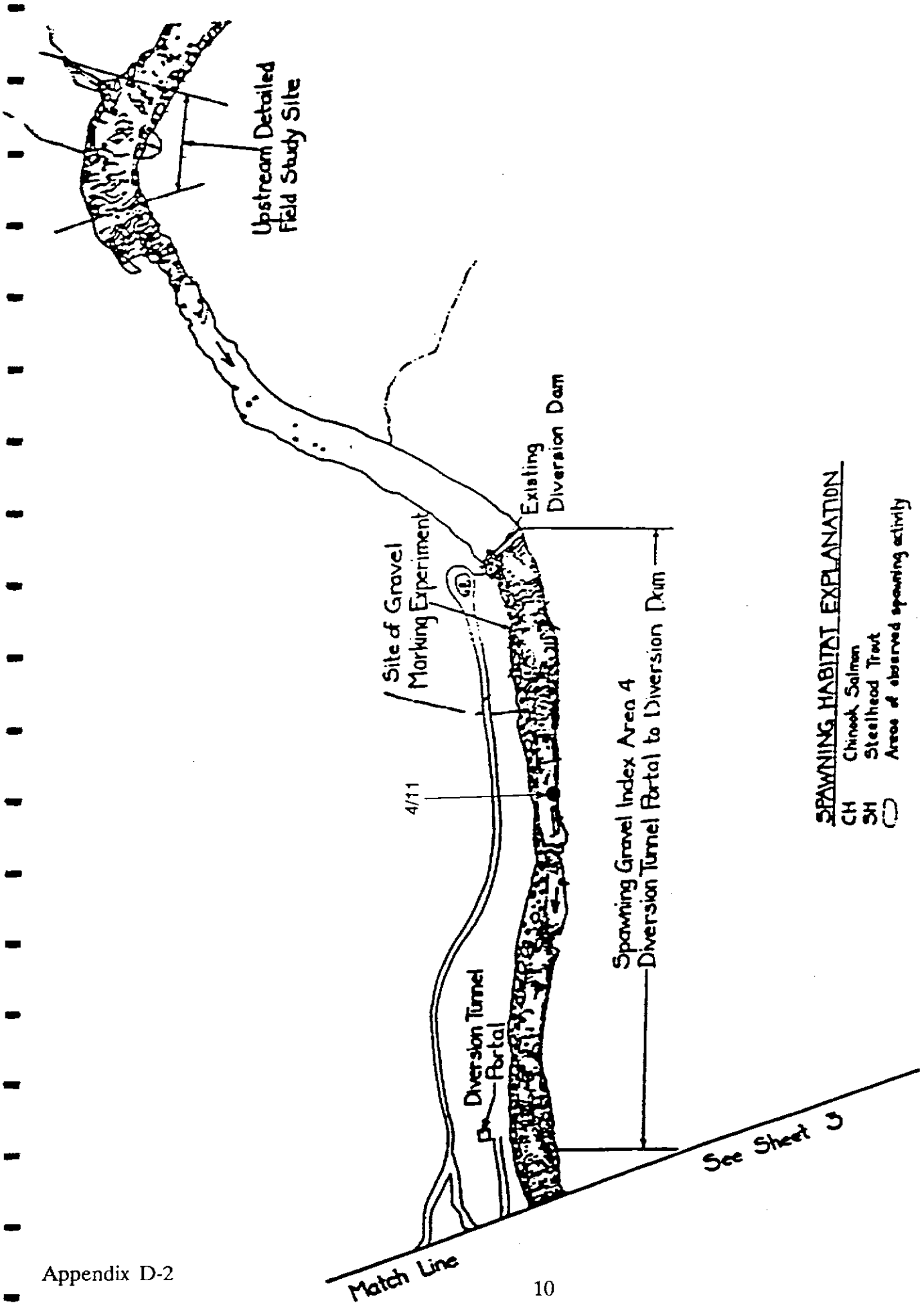








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Public Utility District No. 1 of Snohomish County Everett, Washington
SULTAN RIVER PROJECT RIVER GRAVITY QUANTITY STUDY



SPAWNING HABITAT EXPLANATION

- CH Chinook Salmon
- SH Steelhead Trout
- Area of observed spawning activity

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APPENDIX E

Final reports on winter-run steelhead spawning surveys -
Sultan River, Washington.

E-1. 1987 Report

E-2. 1989 Report

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