

# INVENTORY OF RIPARIAN HABITATS

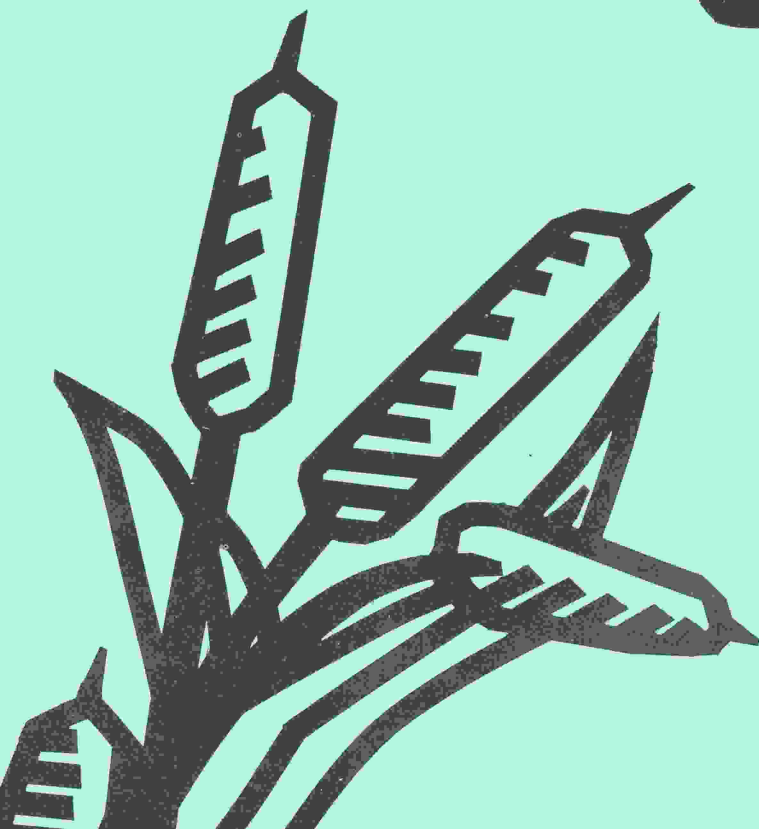
AND ASSOCIATED WILDLIFE ALONG  
COLUMBIA

AND  
SNAKE  
RIVERS

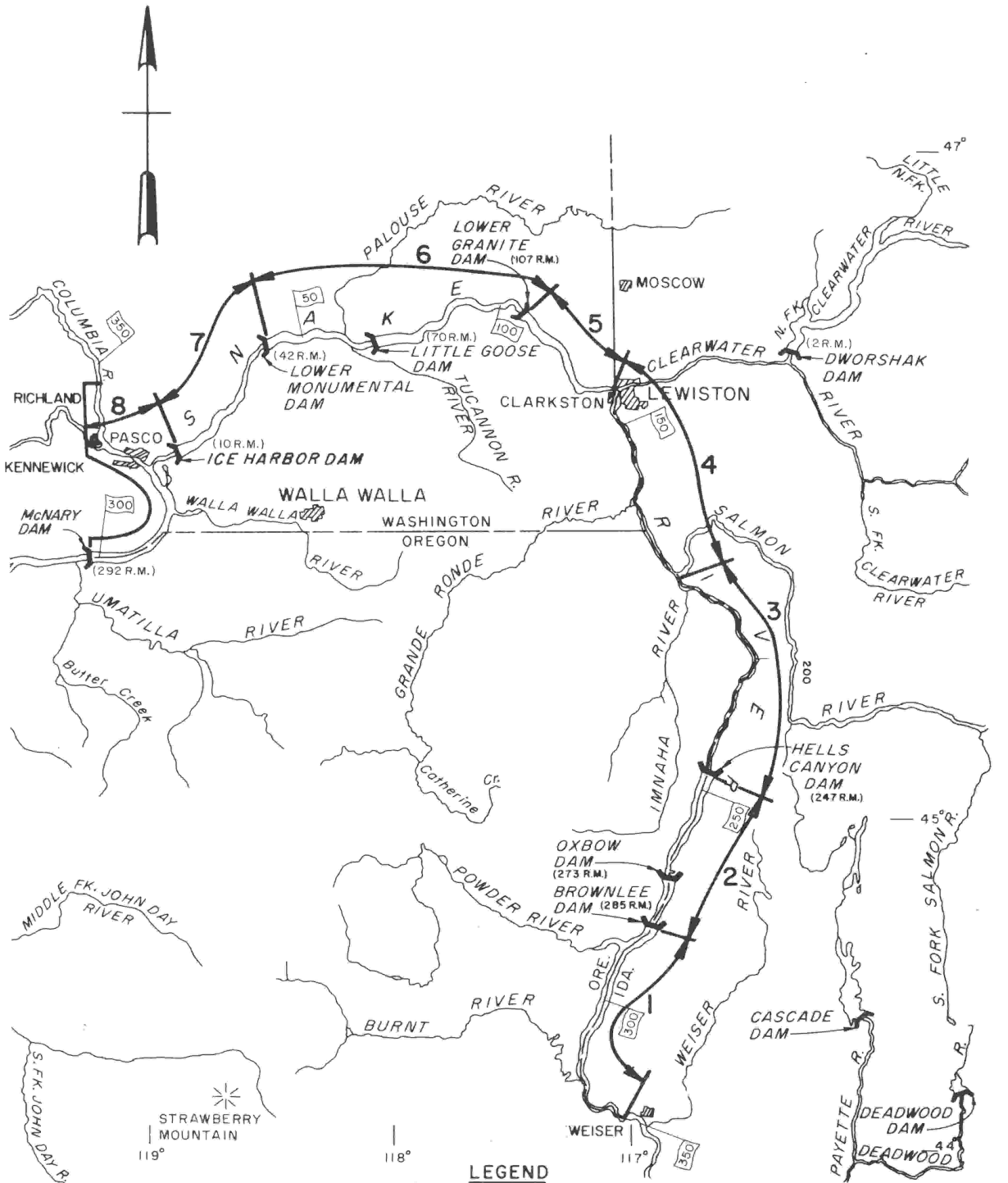


U.S. ARMY CORPS OF ENGINEERS  
NORTH PACIFIC DIVISION

1976



VOLUME III B  
SNAKE RIVER-McNARY  
RESERVOIR



NOT TO SCALE

**LEGEND**  
5 Segment No.

FISHERIES ENGINEERING RESEARCH PROGRAM  
 INVENTORY OF RIPARIAN HABITATS  
 1973 - 1975  
 UNIVERSITY OF IDAHO  
 STUDY AREA  
 SNAKE RIVER  
 RMO TO RM 344.9  
 COLUMBIA RIVER  
 RM 292 TO RM 345.5  
 U.S. ARMY ENGINEER DISTRICT, WALLA WALLA

VOLUME 3B

INVENTORY OF RIPARIAN HABITATS AND  
ASSOCIATED WILDLIFE ALONG THE  
COLUMBIA AND SNAKE RIVERS

to

U.S. Army Corps of Engineers  
Wildlife Work Group

from

Duane A. Asherin

James J. Claar

Idaho Cooperative Wildlife Research Unit

Maurice G. Hornocker, Leader

Elwood G. Bizeau, Assistant Leader

College of Forestry, Wildlife and Range Sciences

University of Idaho

John H. Ehrenreich, Dean

1976

## VEGETATIVE AND LAND FORM LEGEND

### 100 Barren land

- 110 Sand dunes
- 140 Shorelines, beaches, tideflats, and river banks
- 141 Rock or talus
  - 141.1 Rock cliffs
  - 141.2 Cliff-talus
- 142 Gravel
- 143 Sand
- 143.1 Sand bar 143.2 Sand banks
- 144 Mud
  - 144.1 Mud flats
- 147 Road fill
- 148 Rock rip-rap

### 150 Bare ground

### 200 Water resources

- 210 Ponds, lakes, and reservoirs
- 211 Ponds
- 212 Lakes
- 213 Reservoirs
- 214 Embayments connected to reservoir
- 220 Water courses
- 221 Rivers
- 224 Sloughs

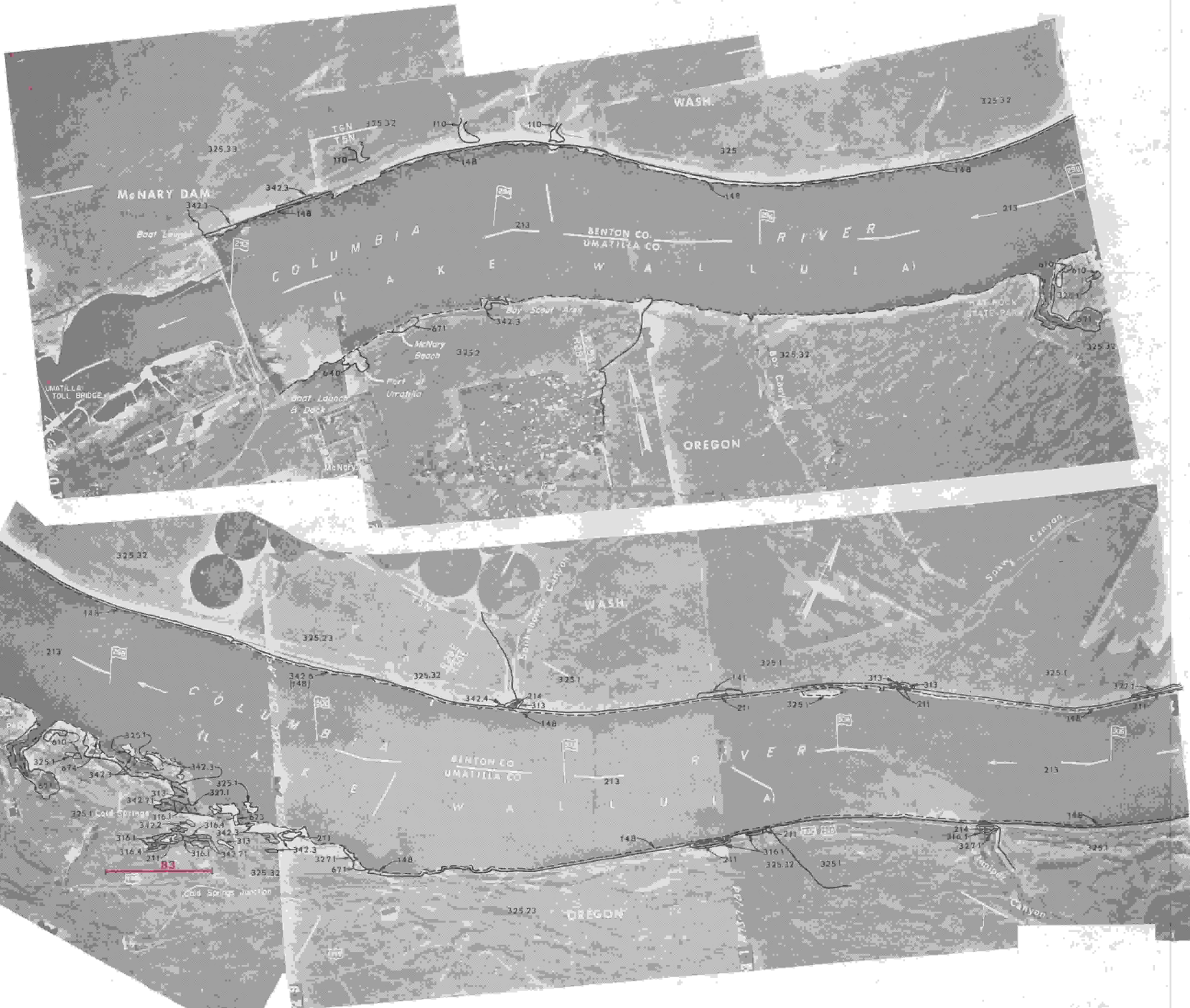
### 300 Natural vegetation 310 Herbaceous types 312 Annual grasses

- 312.1 Medusahead Wildrye
- 312.2 Cheatgrass Brome
- 312.21 Balsamroot
- 313 Annual ForbS
  - 313.1 Louisiana Sagebrush
  - 313.2 White Sweet Clover
  - 313.3 Absinthe
  - 313.4 Lupine
  - 313.5 Northern Buckwheat
  - 313.6 Horsetail
- 314 Bunchgrass
  - 314.1 BluebunchWheatgrass-Sandberg Bluegrass
  - 314.2 Thickspike Wheatgrass
  - 314.3 Crested Wheatgrass
  - 314.4 Wildrye
  - 314.5 Reedgrass
- 316 Marshes
  - 316.1 Cattail 316.2 Sedge
  - .316.4 Bulrush
  - 316.6 Cattail-Sedge



- 320 Shrub, scrub types
- 325 Shrub steppe
  - 325.1 Big Sagebrush
    - 325.11 Big Sagebrush-Bluebunch Wheatgrass
  - 325.2 Rubber Rabbitbrush
  - 325.3 Bitterbrushes
    - 325.31 Antelope Bitterbrush-BluebunchH Wheatgrass
    - 325.32 Antelope Bitterbrush-Big Sagebrush
  - 325.5 Curlleaf Mountainmahogany
  - 325.6 Douglas Hackberry
  - 325.7 Ceanothus
- 327 Macrophyllous shrub and vine
  - 327.1 Willow
  - 327.2 Blackberry
  - 327.3 Rose
  - 327.4 Smooth Sumac
  - 327.5 Black Hawthorn
  - 327.6 Serviceberry
  - 327.8 Elderberry
  - 327.9 Bitter Cherry
- 329 Heterogeneous shrub mixture 340 Forest and woodland types 342 Broadleaf forests
  - 342.1 Tree willow
  - 342.2 Cottonwood
  - 342.3 Russian Olive
  - 342.4 black Locust
  - 342.6 White Alder
  - 342.7 Two species mixture of broadleaved trees
    - 342.71 Willow-Cottonwood
    - 342.72 Russian Olive-Willow
    - 342.73 Mulberry-Willow
  - 342.8 Three species mixture of broadleaved trees
    - 342.81 Willow-Cottonwood-Ash
    - 342.87 Willow-Cottonwood-Russian Olive
  - 342.9 Deciduous tributary vegetation 343 Conifer-Herbaceous types
  - 343.5 Ponderosa Pine-Douglas Hackberry
  - 343.6 Ponderosa Pine-Elderberry
  - 343.7 Ponderosa Pine-Bluebunch Wheatgrass
- 500 Agricultural production
  - 510 Field crops
  - 540 Fenced pasture
  - 560 Idle lands
  - 570 Agricultural production facilities 571 Feedlots
  - 572 Agricultural buildings
- 600 Urban and resource extraction
  - 610 Residential areas and summer homes
  - 620 Business district
- 640 Industrial area

650 Transportation, communications, and utilities (an'd their right-of-way) 651 Railroad  
652 Roads  
654 Airport  
656 Power facilities and dams  
660 Resource extraction  
661 Gravel pits  
662 Mine facilities  
663 Fish hatchery  
670 Open space and recreational facilities  
671 Developed parks  
672 Undeveloped parks  
673 Public access areas  
674 Marinas  
    674.1 Commercial outfitter facility



VEGETATIVE AND LAND FORM LEGEND

TOP PHOTO

- 100 BARREN LAND
- 110 SAND DUNES
- 140 SHORELINES, BEACHES, ETC.
- 148 ROCK RIP-RAP
- 200 WATER RESOURCES
- 210 PONDS, LAKES AND RESERVOIRS
- 213 RESERVOIRS
- 300 NATURAL VEGETATION
- 320 SHRUB, SCRUB TYPES
- 325 SHRUB STEPPE
- 325.1 SAGEBRUSH TYPES
- 325.2 RABBITBRUSH TYPES
- 325.3 BITTERBRUSH TYPES
- 325.32 ANTELOPE BITTERBRUSH/  
BIG SAGEBRUSH
- 340 FOREST AND WOODLAND TYPES
- 342 BROADLEAF FORESTS
- 342.3 RUSSIAN OLIVE
- 600 URBAN AND RESOURCE EXTRACTION
- 610 RESIDENTIAL AREAS AND SUMMER HOMES
- 620 INDUSTRIAL AREA
- 670 OPEN SPACE AND RECREATIONAL FACILITIES
- 671 DEVELOPED PARKS

VEGETATIVE AND LAND FORM LEGEND

BOTTOM PHOTO

- 100 BARREN LAND
- 140 SHORELINES, BEACHES, ETC.
- 141 ROCK OR TALUS
- 148 ROCK RIP-RAP
- 200 WATER RESOURCES
- 210 PONDS, LAKES AND RESERVOIRS
- 211 PONDS
- 213 RESERVOIRS
- 214 EMBAYMENT CONNECTED TO RESERVOIR
- 300 NATURAL VEGETATION
- 310 HERBACEOUS TYPES
- 313 ANNUAL FORBS
- 316 MARSHES
- 316.1 CATTAILS
- 316.4 BULRUSH
- 320 SHRUB, SCRUB TYPES
- 325 SHRUB STEPPE
- 325.1 SAGEBRUSH TYPES
- 325.2 RABBITBRUSH TYPES
- 325.23 MIXED GRAY AND GREEN  
RABBITBRUSH
- 325.3 BITTERBRUSH TYPES
- 325.32 ANTELOPE BITTERBRUSH/  
BIG SAGEBRUSH
- 327 MACROPHYLOUS SHRUB AND VINE
- 327.1 SHRUB WILLOW
- 340 FOREST AND WOODLAND TYPES
- 342 BROADLEAF FORESTS
- 342.2 COTTONWOOD
- 342.3 RUSSIAN OLIVE
- 342.4 BLACK LOCUST
- 342.6 WHITE ALDER
- 342.7 TWO SPECIES MIXTURES OF  
BROADLEAF TREES
- 342.71 WILLOW/COTTONWOOD
- 600 URBAN AND RESOURCE EXTRACTION
- 610 RESIDENTIAL AREAS AND SUMMER HOMES
- 670 OPEN SPACE AND RECREATIONAL FACILITIES
- 671 DEVELOPED PARKS
- 673 PUBLIC ACCESS AREAS
- 674 MARINAS

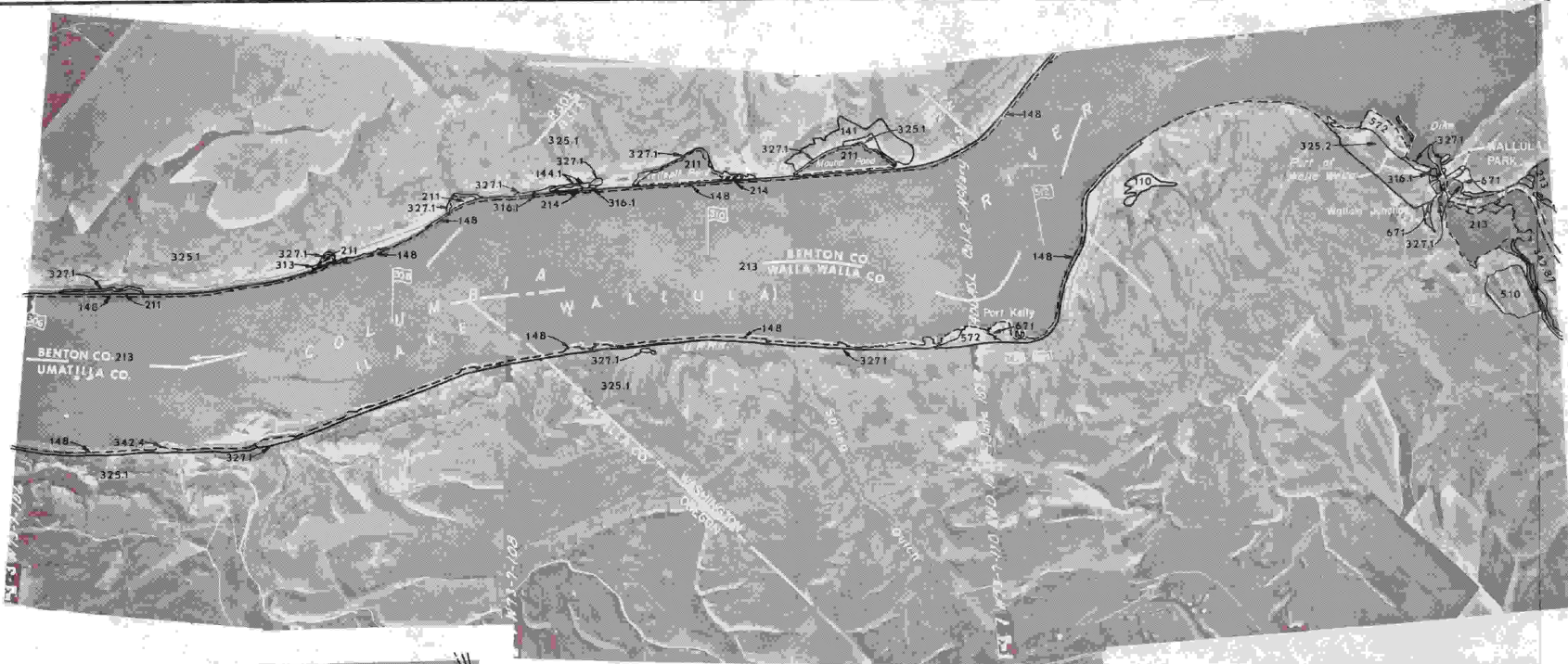
LEGEND

- 300 Vegetative Types & Land Form Classes
- 83 Transect Area



FISHERIES ENGINEERING RESEARCH PROGRAM  
**INVENTORY OF RIPARIAN HABITATS**  
 1973-1975  
 COLUMBIA RIVER  
 RM 292 TO RM 306  
 U.S. ARMY ENGINEER DISTRICT, WALLA WALLA



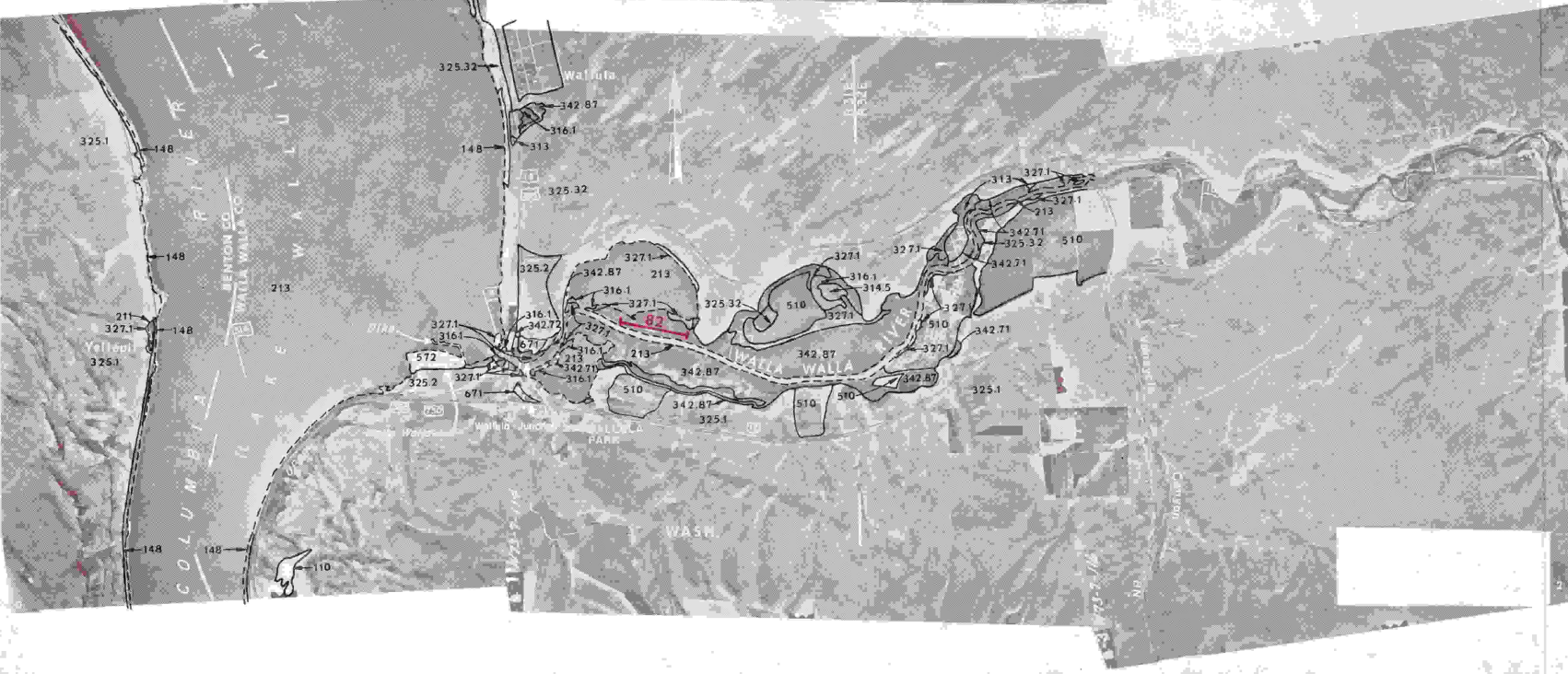


**VEGETATIVE AND LAND FORM LEGEND**

- TOP PHOTO**
- 100 BARREN LAND
  - 110 SAND DUNES
  - 140 SHORELINES, BEACHES, ETC.
  - 141 ROCK OR TALUS
  - 144 MUD
  - 144.1 MUD FLAT
  - 148 ROCK RIP-RAP
  - 200 WATER RESOURCES
  - 210 PONDS, LAKES AND RESERVOIRS
  - 211 PONDS
  - 213 RESERVOIRS
  - 214 EMBAYMENT CONNECTED TO RESERVOIR
  - 300 NATURAL VEGETATION
  - 310 HERBACEOUS TYPES
  - 313 ANNUAL FORBS
  - 314 PERENNIAL GRASSES
  - 314.5 REEDGRASS
  - 316 MARSHES
  - 316.1 CATTAIL
  - 320 SHRUB, SCRUB TYPES
  - 325 SHRUB STEPPE
  - 325.1 SAGEBRUSH TYPES
  - 325.2 RABBITBRUSH TYPES
  - 325.3 BITTERBRUSH TYPES
  - 325.32 ANTELOPE BITTERBRUSH/
  - 327 MACROPHYLLIOUS SHRUB AND VINE
  - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
  - 342 BROADLEAF FORESTS
  - 342.2 COTTONWOOD
  - 342.8 THREE SPECIES MIXTURES OF BROADLEAF TREES
  - 342.87 WILLOW/COTTONWOOD/RUSSIAN OLIVE
  - 500 AGRICULTURAL PRODUCTION
  - 510 FIELD CROPS
  - 570 AGRICULTURAL PRODUCTION FACILITIES
  - 572 BUILDINGS
  - 600 URBAN AND RESOURCE EXTRACTION
  - 670 OPEN SPACE AND RECREATIONAL FACILITIES
  - 671 DEVELOPED PARKS

**VEGETATIVE AND LAND FORM LEGEND**

- BOTTOM PHOTO**
- 100 BARREN LAND
  - 110 SAND DUNES
  - 140 SHORELINES, BEACHES, ETC.
  - 148 ROCK RIP-RAP
  - 200 WATER RESOURCES
  - 210 PONDS, LAKES AND RESERVOIRS
  - 211 PONDS
  - 213 RESERVOIRS
  - 300 NATURAL VEGETATION
  - 310 HERBACEOUS TYPES
  - 313 ANNUAL FORBS
  - 314 PERENNIAL GRASSES
  - 314.5 REEDGRASS
  - 316 MARSHES
  - 316.1 CATTAIL
  - 320 SHRUB, SCRUB TYPES
  - 325 SHRUB STEPPE
  - 325.1 SAGEBRUSH TYPES
  - 325.2 RABBITBRUSH TYPES
  - 325.3 BITTERBRUSH TYPES
  - 325.32 ANTELOPE BITTERBRUSH/
  - 327 MACROPHYLLIOUS SHRUB AND VINE
  - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
  - 342 BROADLEAF FORESTS
  - 342.7 TWO SPECIES MIXTURES OF BROADLEAF TREES
  - 342.71 WILLOW/COTTONWOOD
  - 342.72 RUSSIAN OLIVE/WILLOW
  - 342.8 THREE SPECIES MIXTURES OF BROADLEAF TREES
  - 342.87 WILLOW/COTTONWOOD/RUSSIAN OLIVE
  - 500 AGRICULTURAL PRODUCTION
  - 510 FIELD CROPS
  - 570 AGRICULTURAL PRODUCTION FACILITIES
  - 572 BUILDINGS
  - 600 URBAN AND RESOURCE EXTRACTION
  - 670 OPEN SPACE AND RECREATIONAL FACILITIES
  - 671 DEVELOPED PARKS



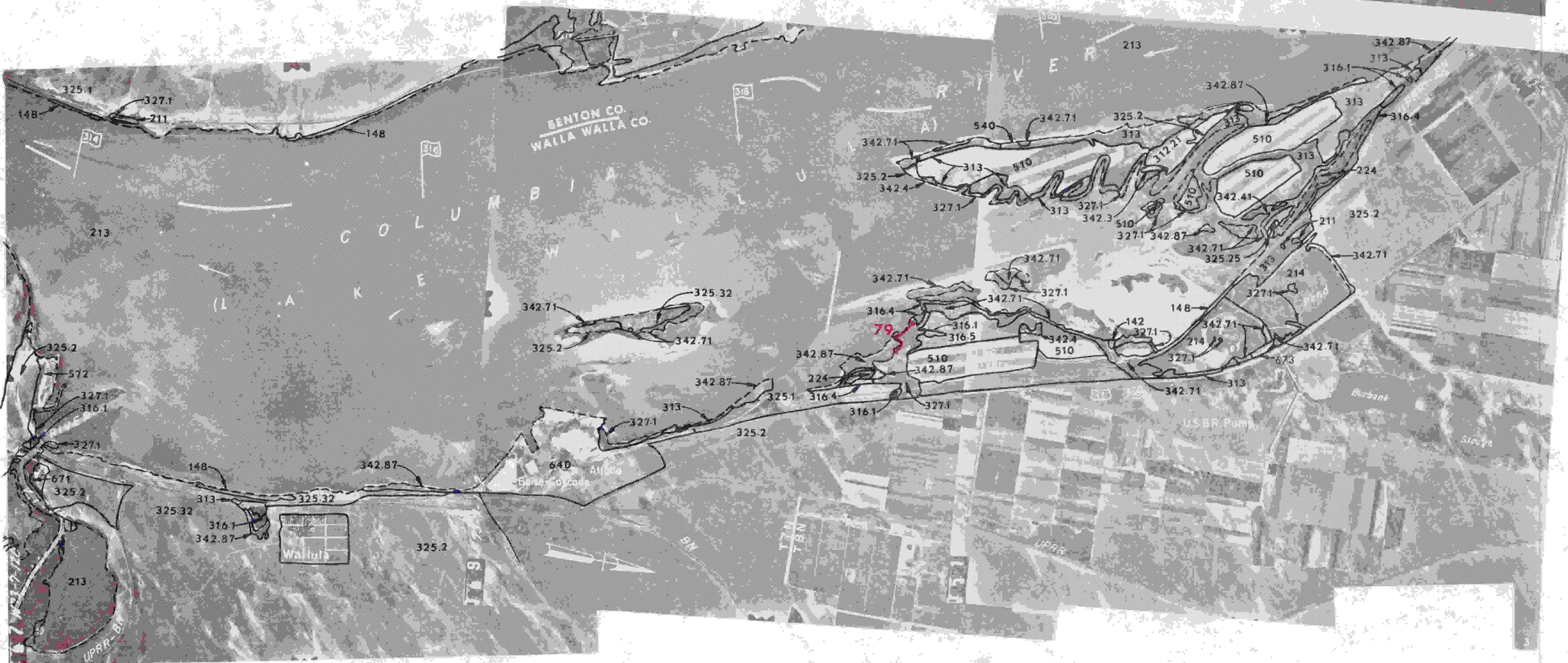
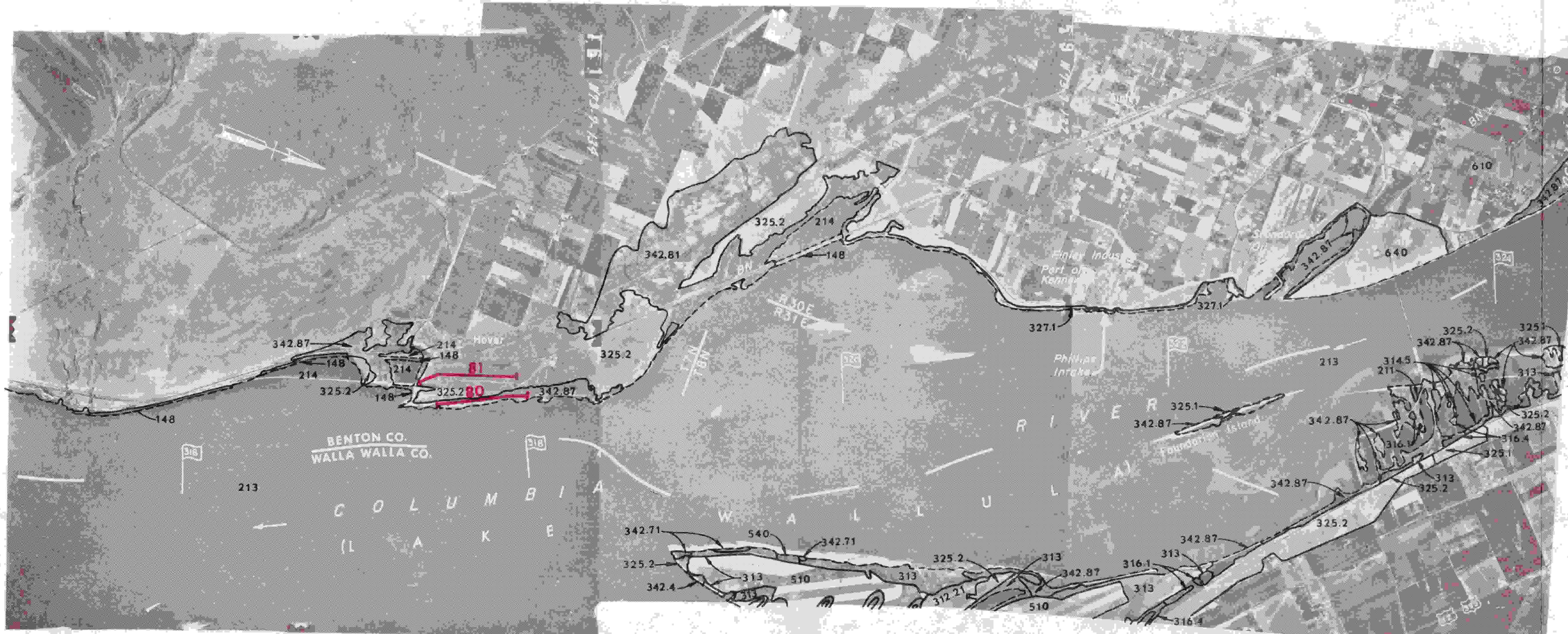
**LEGEND**

- 300 Vegetative Types & Land Form Classes
- 82 Transect Area



FISHERIES ENGINEERING RESEARCH PROGRAM  
**INVENTORY OF RIPARIAN HABITATS**  
 1973-1975  
 COLUMBIA RIVER  
 RM 306 TO RM 314  
 U.S. ARMY ENGINEER DISTRICT, WALLA WALLA





VEGETATIVE AND LAND FORM LEGEND

- TOP PHOTO**
- 100 BARREN LAND
  - 140 SHORELINES, BEACHES, ETC.
  - 148 ROCK RIP-RAP
  - 200 WATER RESOURCES
    - 210 PONDS, LAKES AND RESERVOIRS
    - 211 PONDS
    - 213 RESERVOIRS
    - 214 EMBAYMENT CONNECTED TO RESERVOIR
  - 300 NATURAL VEGETATION
    - 310 HERBACEOUS TYPES
      - 312 ANNUAL GRASSES
        - 312.2 CHEATGRASS BROME
        - 312.21 BALSAMROOT
      - 313 ANNUAL FORBS
      - 314 PERENNIAL GRASSES
      - 314.5 REEDGRASS
    - 316 MARSHES
      - 316.1 CATTAIL
      - 316.4 BULRUSH
  - 320 SHRUB, SCRUB TYPES
    - 325 SHRUB STEPPE
      - 325.1 SAGEBRUSH TYPES
      - 325.2 RABBITBRUSH TYPES
    - 327 MACROPHYLLLOUS SHRUB AND VINE
      - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
    - 342 BROADLEAF FORESTS
      - 342.4 BLACK LOCUST
      - 342.7 TWO SPECIES MIXTURES OF BROADLEAF TREES
        - 342.71 WILLOW/COTTONWOOD
      - 342.8 THREE SPECIES MIXTURES OF BROADLEAF TREES
        - 342.81 WILLOW/COTTONWOOD/ASH
        - 342.87 WILLOW/COTTONWOOD/RUSSIAN OLIVE
  - 500 AGRICULTURAL PRODUCTION
    - 510 FIELD CROPS
    - 540 FENCED PASTURE
  - 600 URBAN AND RESOURCE EXTRACTION
    - 610 RESIDENTIAL AREAS AND SUMMER HOMES
    - 640 INDUSTRIAL AREA

VEGETATIVE AND LAND FORM LEGEND

- BOTTOM PHOTO**
- 100 BARREN LAND
  - 140 SHORELINES, BEACHES, ETC.
  - 142 GRAVEL
  - 148 ROCK RIP-RAP
  - 200 WATER RESOURCES
    - 210 PONDS, LAKES AND RESERVOIRS
    - 211 PONDS
    - 213 RESERVOIRS
    - 214 EMBAYMENT CONNECTED TO RESERVOIR
  - 220 WATER COURSES
    - 224 SLOUGHS
  - 300 NATURAL VEGETATION
    - 310 HERBACEOUS TYPES
      - 312 ANNUAL GRASSES
        - 312.2 CHEATGRASS BROME
        - 312.21 BALSAMROOT
      - 313 ANNUAL FORBS
      - 316 MARSHES
        - 316.1 CATTAIL
        - 316.4 BULRUSH
        - 316.5 CATTAIL/SEDGE
    - 320 SHRUB, SCRUB TYPES
      - 325 SHRUB STEPPE
        - 325.1 SAGEBRUSH TYPES
        - 325.2 RABBITBRUSH TYPES
        - 325.3 BITTERBRUSH TYPES
          - 325.32 ANTELOPE BITTERBRUSH/BIG SAGEBRUSH
      - 327 MACROPHYLLLOUS SHRUB AND VINE
        - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
    - 342 BROADLEAF FORESTS
      - 342.3 RUSSIAN OLIVE
      - 342.4 BLACK LOCUST
      - 342.7 TWO SPECIES MIXTURES OF BROADLEAF TREES
        - 342.71 WILLOW/COTTONWOOD
      - 342.8 THREE SPECIES MIXTURES OF BROADLEAF TREES
        - 342.87 WILLOW/COTTONWOOD/RUSSIAN OLIVE
  - 500 AGRICULTURAL PRODUCTION
    - 510 FIELD CROPS
    - 570 AGRICULTURAL PRODUCTION FACILITIES
    - 572 BUILDINGS
  - 600 URBAN AND RESOURCE EXTRACTION
    - 640 INDUSTRIAL AREAS
    - 670 OPEN SPACE AND RECREATIONAL FACILITIES
      - 671 DEVELOPED PARKS
      - 673 PUBLIC ACCESS AREAS

LEGEND

- 300 Vegetative Types & Land Form Classes
- 80 Transect Area



FISHERIES ENGINEERING RESEARCH PROGRAM  
 INVENTORY OF RIPARIAN HABITATS  
 1973-1975  
 COLUMBIA RIVER  
 RM 314 TO RM 324  
 U.S. ARMY ENGINEER DISTRICT, WALLA WALLA





**VEGETATIVE AND LAND FORM LEGEND**

**TOP PHOTO**

- 100 BARREN LAND
- 140 SHORELINES, BEACHES, ETC.
- 148 ROCK RIP-RAP
- 200 WATER RESOURCES
- 210 PONDS, LAKES AND RESERVOIRS
- 211 PONDS
- 213 RESERVOIRS
- 214 EMBAYMENT CONNECTED TO RESERVOIR
- 220 WATER COURSES
- 224 SLOUGHS
- 300 NATURAL VEGETATION
- 310 HERBACEOUS TYPES
- 313 ANNUAL FORBS
- 314 PERENNIAL GRASSES
- 314.5 REEDGRASS
- 316 MARSHES
- 316.1 CATTAIL
- 316.4 BULRUSH
- 320 SHRUB, SCRUB TYPES
- 325 SHRUB STEPPE
- 325.1 SAGEBRUSH TYPES
- 325.2 RABBITBRUSH TYPES
- 327 MACROPHYLOUS SHRUB AND VINE
- 327.1 SHRUB WILLOW
- 340 FOREST AND WOODLAND TYPES
- 342 BROADLEAF FORESTS
- 342.2 COTTONWOOD
- 342.7 TWO SPECIES MIXTURES OF BROADLEAF TREES
- 342.71 WILLOW/COTTONWOOD
- 342.8 THREE SPECIES MIXTURES OF BROADLEAF TREES
- 342.87 WILLOW/COTTONWOOD/RUSSIAN OLIVE
- 600 URBAN AND RESOURCE EXTRACTION
- 610 RESIDENTIAL AREAS AND SUMMER HOMES
- 640 INDUSTRIAL AREAS
- 670 OPEN SPACE AND RECREATIONAL FACILITIES
- 671 DEVELOPED PARKS
- 673 PUBLIC ACCESS AREAS

**VEGETATIVE AND LAND FORM LEGEND**

**BOTTOM PHOTO**

- 100 BARREN LAND
- 140 SHORELINES, BEACHES, ETC.
- 148 ROCK RIP-RAP
- 200 WATER RESOURCES
- 210 PONDS, LAKES AND RESERVOIRS
- 213 RESERVOIRS
- 300 NATURAL VEGETATION
- 310 HERBACEOUS VEGETATION
- 312 ANNUAL GRASSES
- 312.2 CHEATGRASS BROME
- 313 ANNUAL FORBS
- 313.3 ABSINTHE
- 320 SHRUB, SCRUB TYPES
- 325 SHRUB STEPPE
- 325.2 RABBITBRUSH TYPES
- 327 MACROPHYLOUS SHRUB AND VINE
- 327.1 SHRUB WILLOW
- 340 FOREST AND WOODLAND TYPES
- 342 BROADLEAF FOREST
- 342.8 THREE SPECIES MIXTURES OF BROADLEAF FORESTS
- 342.87 WILLOW/COTTONWOOD/RUSSIAN OLIVE
- 500 AGRICULTURAL PRODUCTION
- 510 FIELD CROPS
- 600 URBAN AND RESOURCE EXTRACTION
- 610 RESIDENTIAL AREAS AND SUMMER HOMES
- 670 OPEN SPACE AND RECREATIONAL FACILITIES
- 671 DEVELOPED PARKS
- 674 MARINAS



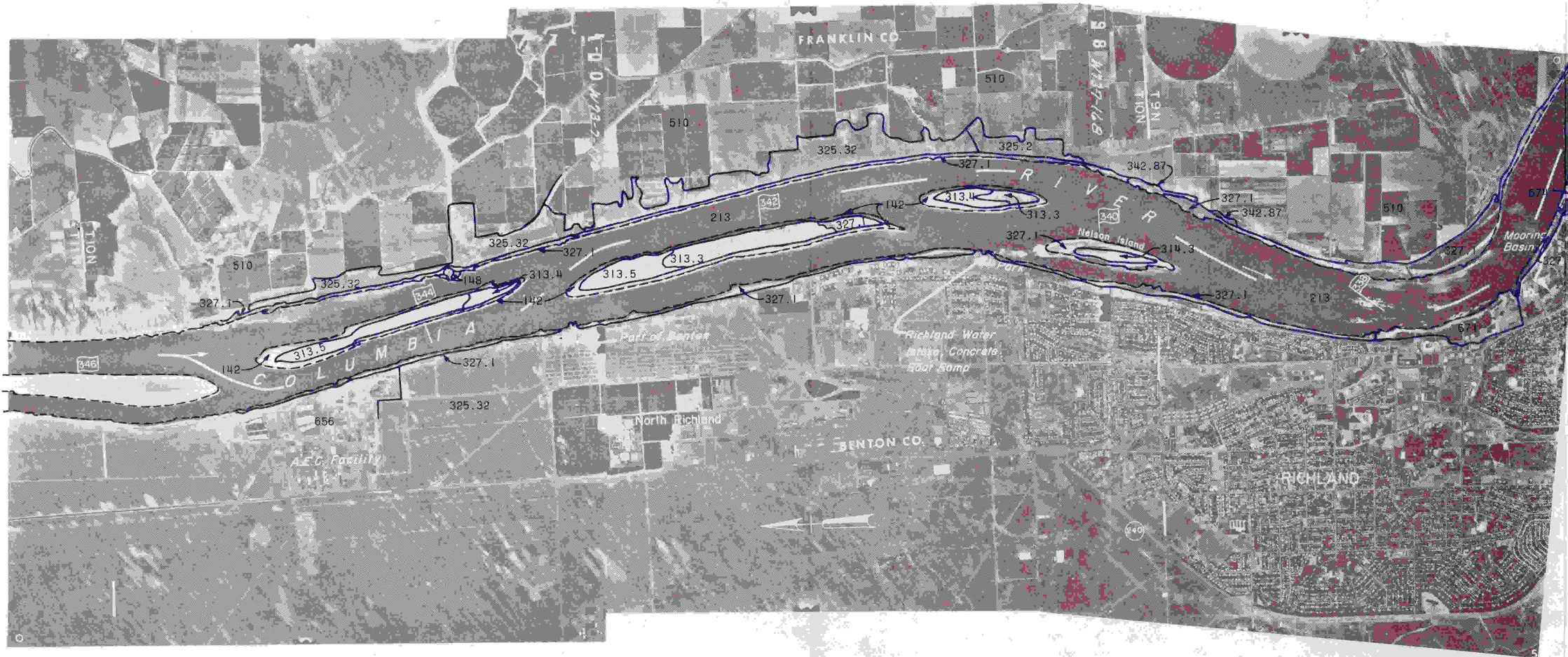
**LEGEND**

- Vegetative Types & Land Form Classes
- Transect Area



FISHERIES ENGINEERING RESEARCH PROGRAM  
**INVENTORY OF RIPARIAN HABITATS**  
 1973-1975  
 COLUMBIA RIVER  
 RM 324 TO RM 338  
 SNAKE RIVER  
 RM 0 TO RM 2  
 U.S. ARMY ENGINEER DISTRICT, WALLA WALLA





VEGETATIVE AND LAND FORM LEGEND

TOP PHOTO

- 100 BARREN LAND
  - 140 SHORELINES, BEACHES, ETC.
  - 142 GRAVEL
  - 147 ROAD FILL
  - 148 ROCK RIP-RAP
- 200 WATER RESOURCES
  - 210 PONDS, LAKES AND RESERVOIRS
  - 213 RESERVOIRS
- 300 NATURAL VEGETATION
  - 310 HERBACEOUS TYPES
    - 313 ANNUAL FORBS
      - 313.3 ABSINTHE
      - 313.4 LUPINE
      - 313.5 NORTHERN BUCKWHEAT
    - 314 PERENNIAL GRASSES
      - 314.3 CRESTED WHEATGRASS
  - 320 SHRUB, SCRUB TYPES
    - 325 SHRUB STEPPE
      - 325.3 BITTERBRUSH TYPES
        - 325.32 ANTELOPE BITTERBRUSH/ BIG SAGEBRUSH
    - 327 MACROPHYLOUS SHRUB AND VINE
      - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
    - 342 BROADLEAF FORESTS
      - 342.8 THREE SPECIES MIXTURES OF BROADLEAF TREES
      - 342.87 WILLOW/COTTONWOOD/ RUSSIAN OLIVE
- 500 AGRICULTURAL PRODUCTION
  - 510 FIELD CROPS
- 600 URBAN AND RESOURCE EXTRACTION
  - 650 TRANSPORTATION, COMMUNICATIONS AND UTILITIES (AND THEIR RIGHT-OF-WAY)
    - 656 POWER FACILITIES AND DAMS
  - 670 OPEN SPACE AND RECREATIONAL FACILITIES
    - 671 DEVELOPED PARKS
    - 674 MARINAS

VEGETATIVE AND LAND FORM LEGEND

BOTTOM PHOTO

- 100 BARREN LAND
  - 140 SHORELINES, BEACHES, ETC.
  - 142 GRAVEL
  - 147 ROAD FILL
- 200 WATER RESOURCES
  - 220 WATER COURSES
  - 221 RIVERS
- 300 NATURAL VEGETATION
  - 310 HERBACEOUS VEGETATION
    - 313 ANNUAL FORBS
      - 313.3 ABSINTHE
      - 313.4 LUPINE
      - 313.5 NORTHERN BUCKWHEAT
    - 314 PERENNIAL GRASSES
      - 314.3 CRESTED WHEATGRASS
  - 320 SHRUB, SCRUB TYPES
    - 325 SHRUB STEPPE
      - 325.3 BITTERBRUSH TYPES
        - 325.32 ANTELOPE BITTERBRUSH/ BIG SAGEGRUSH
    - 327 MACROPHYLOUS SHRUB AND VINE
      - 327.1 SHRUB WILLOW
- 500 AGRICULTURAL PRODUCTION
  - 510 FIELD CROPS

LEGEND

300 Vegetative Types & Land Form Classes

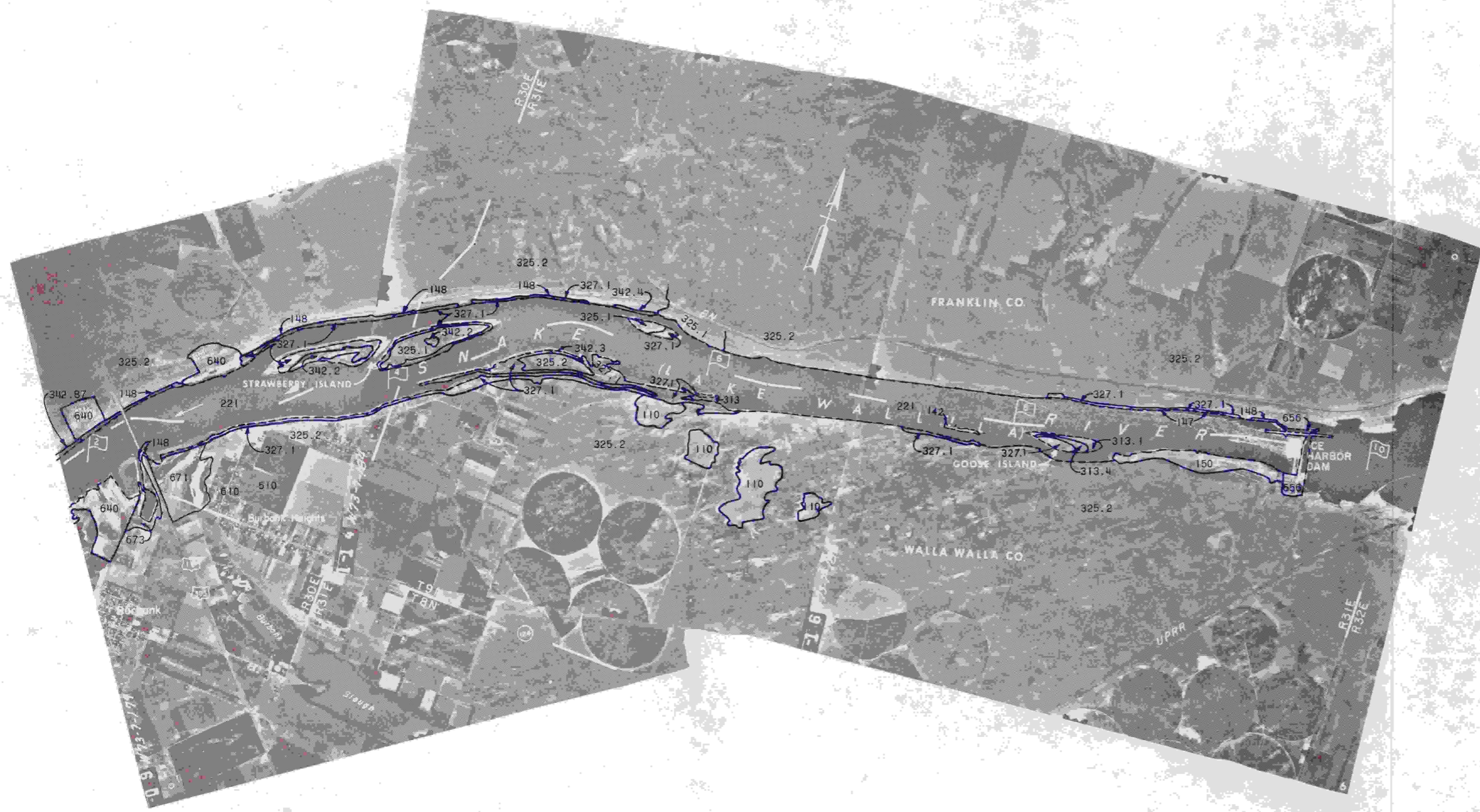


FISHERIES ENGINEERING RESEARCH PROGRAM  
 INVENTORY OF RIPARIAN HABITATS  
 1973-1975  
 COLUMBIA RIVER  
 RM338 TO RM345.5  
 U.S. ARMY ENGINEER DISTRICT, WALLA WALLA



**VEGETATIVE AND LAND FORM LEGEND**

- 100 BARREN LAND
- 110 SAND DUNES
- 140 SHORELINES, BEACHES, ETC.
- 142 GRAVEL
- 147 ROAD FILL
- 148 ROCK RIP-RAP
- 150 BAREGROUND
- 200 WATER RESOURCES
- 220 WATER COURSES
- 221 RIVERS
- 300 NATURAL VEGETATION
- 310 HERBACEOUS VEGETATION
- 313 ANNUAL FORBS
- 313.1 LOUISIANA SAGEBRUSH
- 313.4 LUPINE
- 320 SHRUB, SCRUB TYPES
- 325 SHRUB STEPPE
- 325.1 SAGEBRUSH TYPES
- 325.2 RABBITBRUSH TYPES
- 327 MACROPHYLOUS SHRUB AND VINE
- 327.1 SHRUB WILLOW
- 340 FOREST AND WOODLAND TYPES
- 342 BROADLEAF FORESTS
- 342.2 COTTONWOOD
- 342.3 RUSSIAN OLIVE
- 342.4 BLACK LOCUST
- 342.8 THREE SPECIES MIXTURES OF BROADLEAF TREES
- 342.87 WILLOW/COTTONWOOD/RUSSIAN OLIVE
- 500 AGRICULTURAL PRODUCTION
- 510 FIELD CROPS
- 600 URBAN AND RESOURCE EXTRACTION
- 610 RESIDENTIAL AREAS AND SUMMER HOMES
- 640 INDUSTRIAL AREAS
- 650 TRANSPORTATION, COMMUNICATION AND UTILITIES (AND THEIR RIGHT-OF-WAY)
- 656 POWER FACILITIES AND DAMS
- 670 OPEN SPACE AND RECREATIONAL FACILITIES
- 671 DEVELOPED PARKS
- 673 PUBLIC ACCESS AREAS



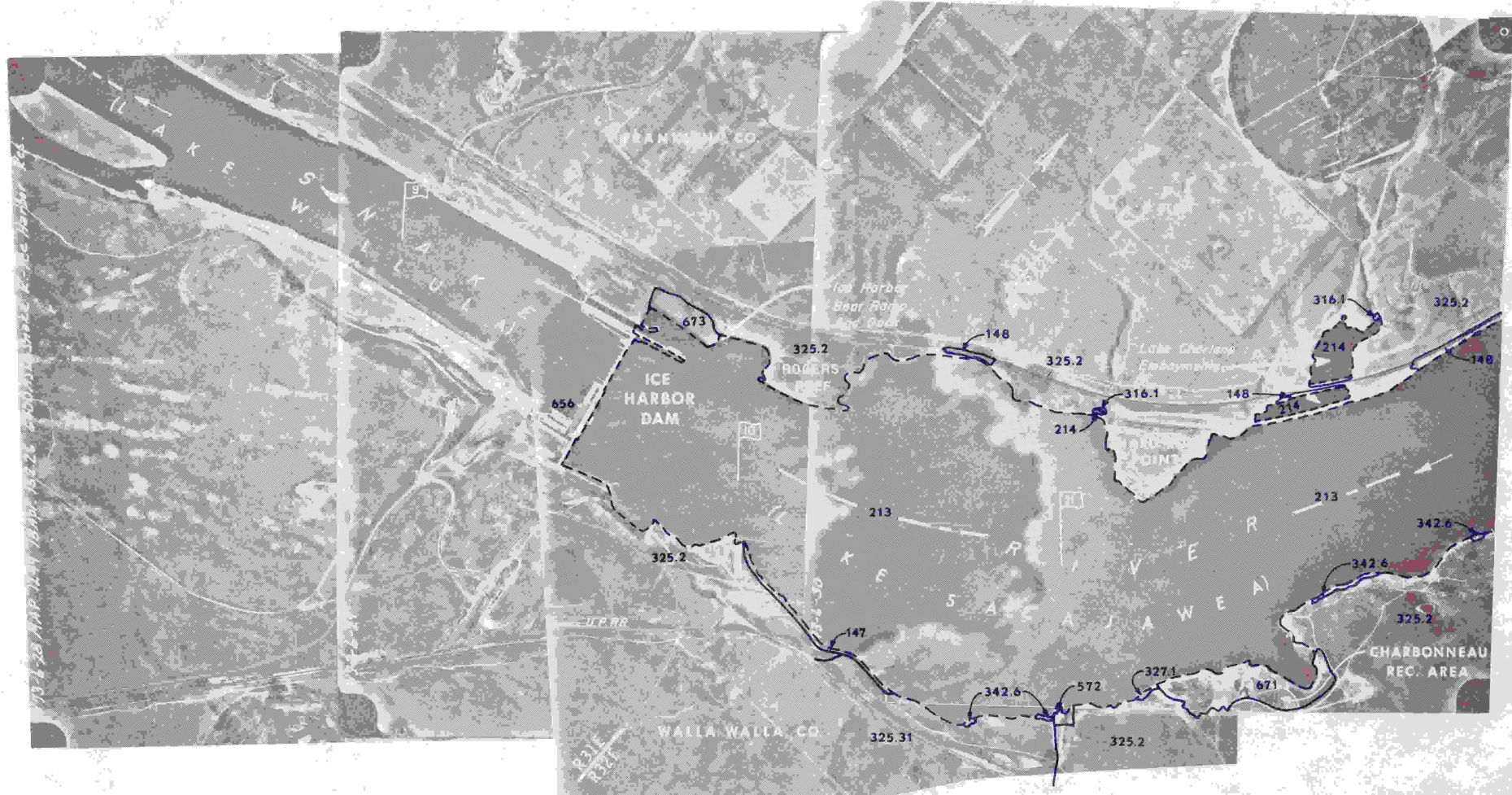
**LEGEND**

300 Vegetative Types & Land Form Classes



FISHERIES ENGINEERING RESEARCH PROGRAM  
**INVENTORY OF RIPARIAN HABITATS**  
 1973-1975  
 SNAKE RIVER  
 RM 2 TO RM 10  
 U.S. ARMY ENGINEER DISTRICT, WALLA WALLA





VEGETATIVE AND LAND FORM LEGEND

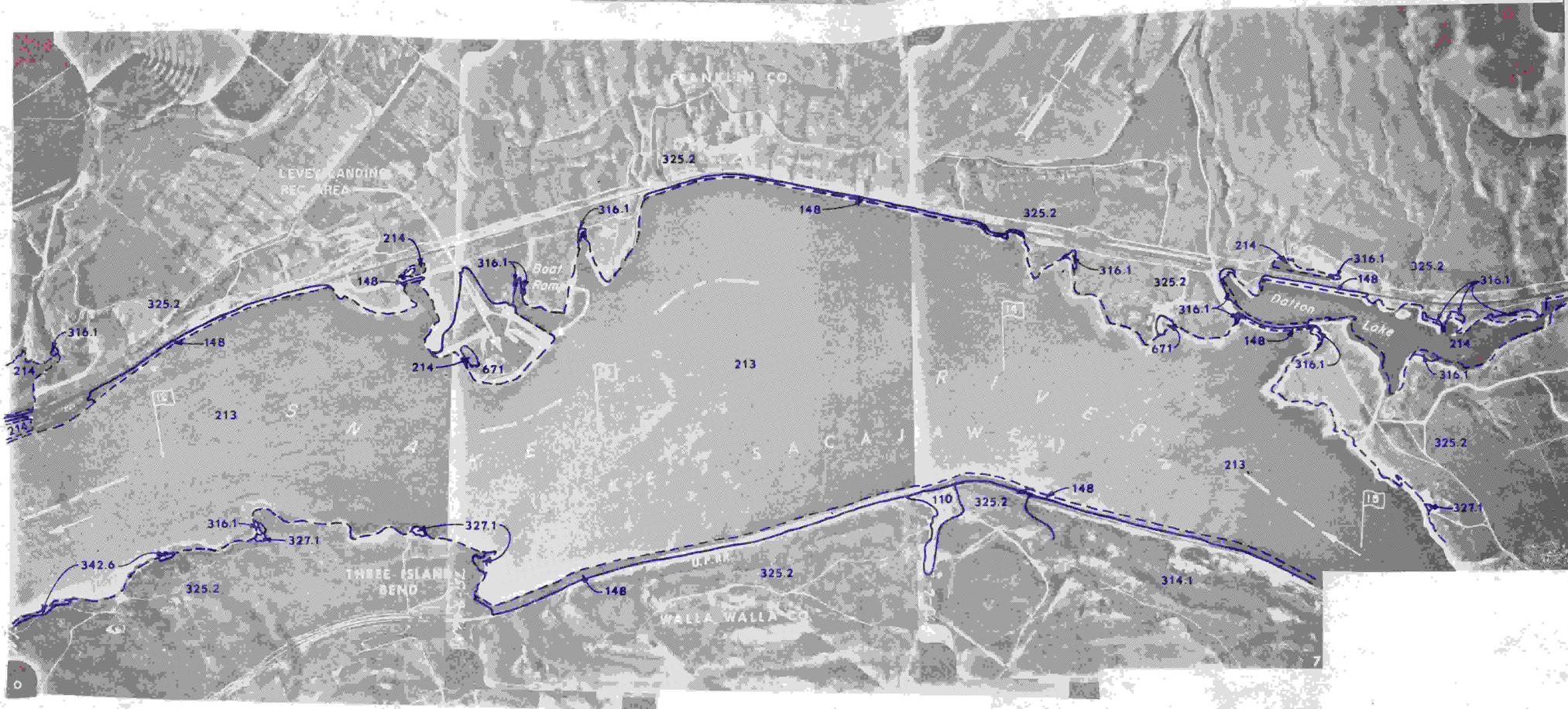
TOP PHOTO

- 100 BARREN LAND
  - 140 SHORELINES, BEACHES, ETC.
  - 147 ROAD FILL
  - 148 ROCK RIP-RAP
- 200 WATER RESOURCES
  - 210 PONDS, LAKES AND RESERVOIRS
  - 213 RESERVOIRS
  - 214 EMBAYMENT CONNECTED TO RESERVOIR
- 300 NATURAL VEGETATION
  - 310 HERBACEOUS TYPES
    - 316 MARSHES
      - 316.1 CATTAIL
  - 320 SHRUB, SCRUB TYPES
    - 325 SHRUB STEPPE
      - 325.2 RABBITBRUSH TYPES
      - 325.3 BITTERBRUSH TYPES
      - 325.31 ANTELOPE BITTERBRUSH/  
BLUEBUNCH WHEATGRASS
    - 327 MACROPHYLLLOUS SHRUB AND VINE
      - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
    - 342 BROADLEAF FORESTS
      - 342.6 WHITE ALDER
- 500 AGRICULTURAL PRODUCTION
  - 570 AGRICULTURAL PRODUCTION FACILITIES
  - 572 BUILDINGS
- 600 URBAN AND RESOURCE EXTRACTION
  - 650 TRANSPORTATION, COMMUNICATION AND UTILITIES (AND THEIR RIGHT-OF-WAY)
  - 656 POWER FACILITIES AND DAMS
  - 670 OPEN SPACE AND RECREATIONAL FACILITIES
  - 671 DEVELOPED PARKS
  - 673 PUBLIC ACCESS AREAS

VEGETATIVE AND LAND FORM LEGEND

BOTTOM PHOTO

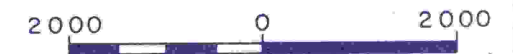
- 100 BARREN LAND
  - 110 SAND DUNES
  - 140 SHORELINES, BEACHES, ETC.
  - 148 ROCK RIP-RAP
- 200 WATER RESOURCES
  - 210 PONDS, LAKES AND RESERVOIRS
  - 213 RESERVOIRS
  - 214 EMBAYMENT CONNECTED TO RESERVOIR
- 300 NATURAL VEGETATION
  - 310 HERBACEOUS TYPES
    - 314 PERENNIAL GRASSES
      - 314.1 BLUEBUNCH WHEATGRASS/  
SANDBERG BLUEGRASS
    - 316 MARSHES
      - 316.1 CATTAIL
  - 320 SHRUB, SCRUB TYPES
    - 325 SHRUB STEPPE
      - 325.2 RABBITBRUSH TYPES
    - 327 MACROPHYLLLOUS SHRUB AND VINE
      - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
    - 342 BROADLEAF FORESTS
      - 342.6 WHITE ALDER
- 600 URBAN AND RESOURCE EXTRACTION
  - 670 OPEN SPACE AND RECREATIONAL FACILITIES
  - 671 DEVELOPED PARKS



LEGEND

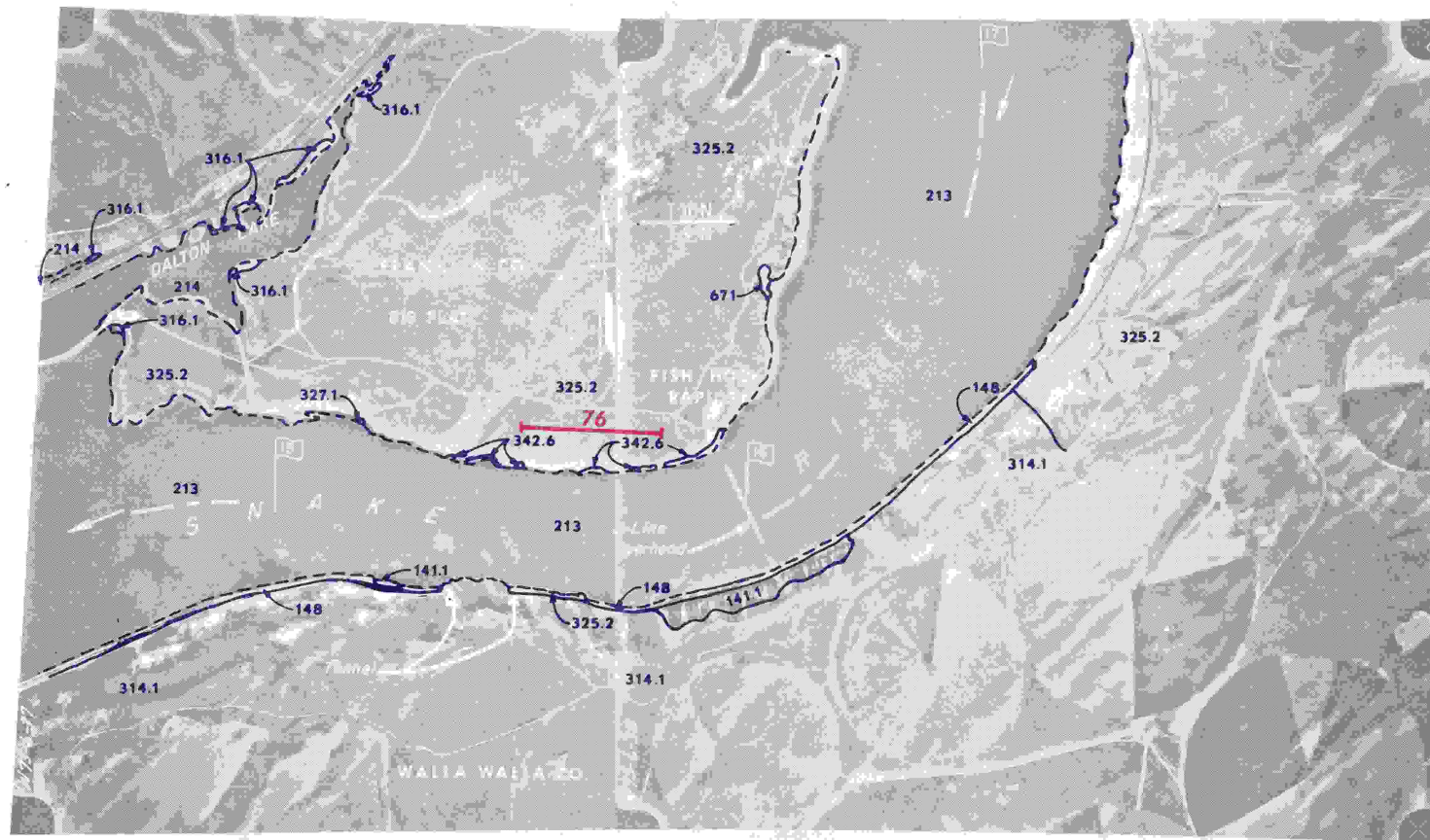
300 Vegetative Types & Land Form Classes

SCALE IN FEET (APPROX.)



FISHERIES ENGINEERING RESEARCH PROGRAM  
 INVENTORY OF RIPARIAN HABITATS  
 1973-1975  
 SNAKE RIVER  
 RM 9 TO RM 15  
 U.S. ARMY ENGINEER DISTRICT, WALLA WALLA





VEGETATIVE AND LAND FORM LEGEND

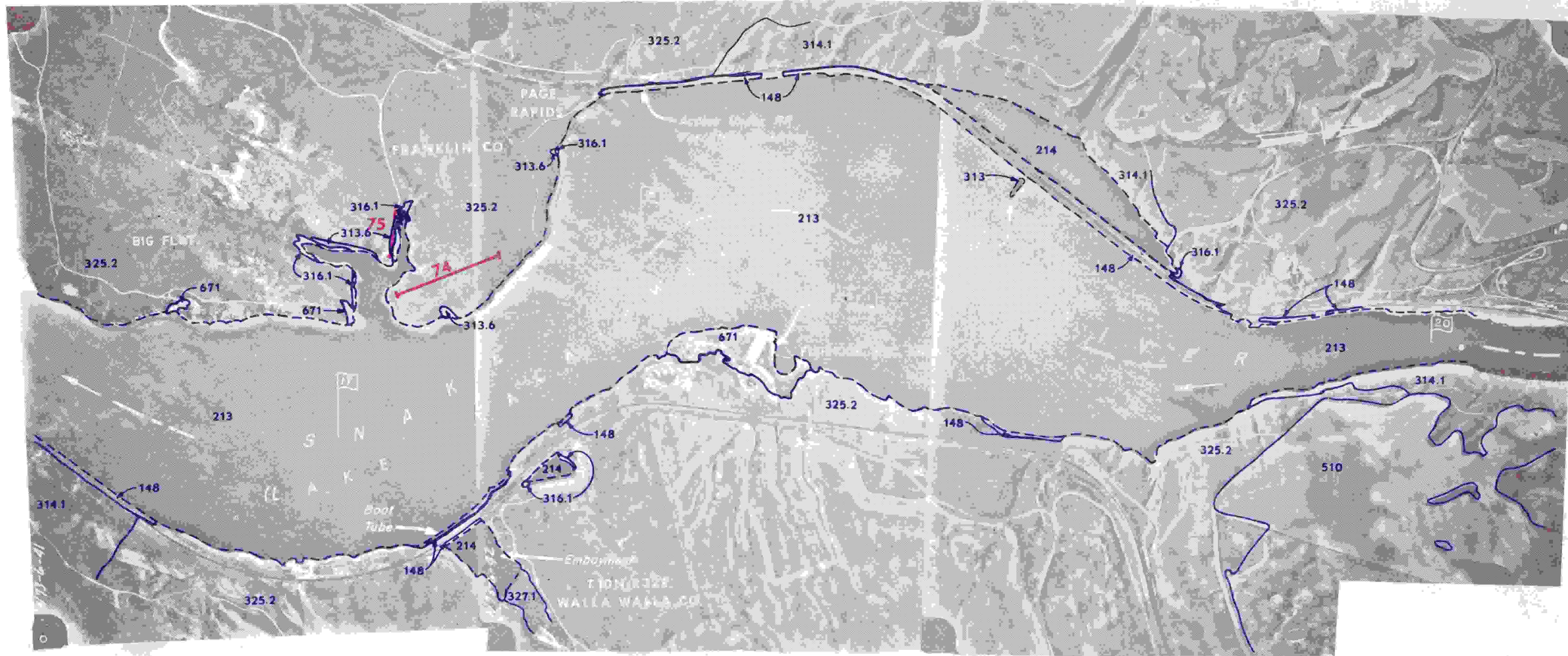
TOP PHOTO

- 100 BARREN LAND
  - 140 SHORELINES, BEACHES, ETC.
  - 141 ROCK OR TALUS
    - 141.1 ROCK CLIFFS
    - 148 ROCK RIP-RAP
- 200 WATER RESOURCES
  - 210 PONDS, LAKES AND RESERVOIRS
  - 213 RESERVOIRS
  - 214 EMBAYMENT CONNECTED TO RESERVOIR
- 300 NATURAL VEGETATION
  - 310 HERBACEOUS TYPES
    - 314 PERENNIAL GRASSES
      - 314.1 BLUEBUNCH WHEATGRASS/  
SANDBERG BLUEGRASS
    - 316 MARSHES
      - 316.1 CATTAIL
  - 320 SHRUB, SCRUB TYPES
    - 325 SHRUB STEPPE
      - 325.2 RABBITBRUSH TYPES
    - 327 MACROPHYLOUS SHRUB AND VINE
      - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
    - 342 BROADLEAF FORESTS
      - 342.6 WHITE ALDER
- 600 URBAN AND RESOURCE EXTRACTION
  - 670 OPEN SPACE AND RECREATIONAL FACILITIES
  - 671 DEVELOPED PARKS

VEGETATIVE AND LAND FORM LEGEND

BOTTOM PHOTO

- 100 BARREN LAND
  - 140 SHORELINES, BEACHES, ETC.
  - 148 ROCK RIP-RAP
- 200 WATER RESOURCES
  - 210 PONDS, LAKES AND RESERVOIRS
  - 213 RESERVOIRS
  - 214 EMBAYMENT CONNECTED TO RESERVOIR
- 300 NATURAL VEGETATION
  - 310 HERBACEOUS TYPES
    - 313 ANNUAL FORBS
      - 313.6 HORSETAIL
    - 314 PERENNIAL GRASSES
      - 314.1 BLUEBUNCH WHEATGRASS/  
SANDBERG BLUEGRASS
  - 316 MARSHES
    - 316.1 CATTAIL
  - 320 SHRUB, SCRUB TYPES
    - 325 SHRUB STEPPE
      - 325.2 RABBITBRUSH TYPES
    - 327 MACROPHYLOUS SHRUB AND VINE
      - 327.1 SHRUB WILLOW
- 500 AGRICULTURAL PRODUCTION
  - 510 FIELD CROPS
- 600 URBAN AND RESOURCE EXTRACTION
  - 670 OPEN SPACE AND RECREATIONAL FACILITIES
  - 671 DEVELOPED PARKS



LEGEND

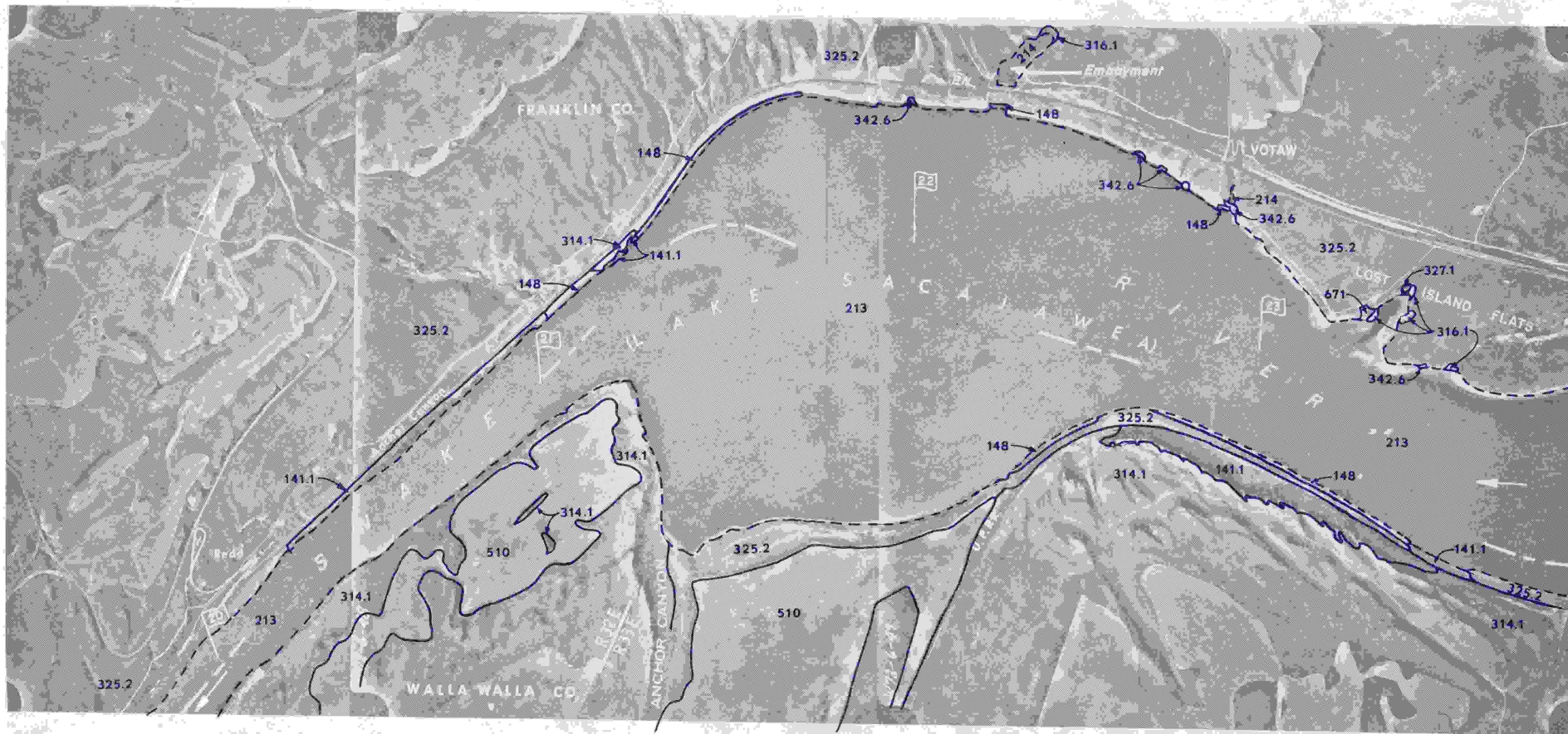
- Vegetative Types & Land Form Classes
- Transect Area

SCALE IN FEET (APPROX.)



FISHERIES ENGINEERING RESEARCH PROGRAM  
 INVENTORY OF RIPARIAN HABITATS  
 1973-1975  
 SNAKE RIVER  
 RM 15 TO RM 20  
 U.S. ARMY ENGINEER DISTRICT, WALLA WALLA





VEGETATIVE AND LAND FORM LEGEND

TOP PHOTO

- 100 BARREN LAND
  - 140 SHORELINES, BEACHES, ETC.
  - 141 ROCK OR TALUS
  - 141.1 ROCK CLIFFS
  - 148 ROCK RIP-RAP
- 200 WATER RESOURCES
  - 210 PONDS, LAKES AND RESERVOIRS
  - 213 RESERVOIRS
  - 214 EMBAYMENT CONNECTED TO RESERVOIR
- 300 NATURAL VEGETATION
  - 310 HERBACEOUS TYPES
    - 314 PERENNIAL GRASSES
      - 314.1 BLUEBUNCH WHEATGRASS/SANDBERG BLUEGRASS
    - 316 MARSHES
      - 316.1 CATTAIL
  - 320 SHRUB, SCRUB TYPES
    - 325 SHRUB STEPPE
      - 325.2 RABBITBRUSH TYPES
    - 327 MACROPHYLLOUS SHRUB AND VINE
      - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
    - 342 BROADLEAF FORESTS
      - 342.6 WHITE ALDER
- 500 AGRICULTURAL PRODUCTION
  - 510 FIELD CROPS
- 600 URBAN AND RESOURCE EXTRACTION
  - 670 OPEN SPACE AND RECREATIONAL FACILITIES
  - 671 DEVELOPED PARKS

VEGETATIVE AND LAND FORM LEGEND

BOTTOM PHOTO

- 100 BARREN LAND
  - 140 SHORELINES, BEACHES, ETC.
  - 141 ROCK OR TALUS
  - 141.1 ROCK CLIFFS
  - 147 ROAD FILL
  - 148 ROCK RIP-RAP
- 200 WATER RESOURCES
  - 210 PONDS, LAKES AND RESERVOIRS
  - 213 RESERVOIRS
- 300 NATURAL VEGETATION
  - 310 HERBACEOUS TYPES
    - 314 PERENNIAL GRASSES
      - 314.1 BLUEBUNCH WHEATGRASS/SANDBERG BLUEGRASS
    - 316 MARSHES
      - 316.1 CATTAIL
  - 320 SHRUB, SCRUB TYPES
    - 325 SHRUB STEPPE
      - 325.2 RABBITBRUSH TYPES
    - 327 MACROPHYLLOUS SHRUB AND VINE
      - 327.1 SHRUB WILLOW
  - 340 FOREST AND WOODLAND TYPES
    - 342 BROADLEAF FORESTS
      - 342.3 RUSSIAN OLIVE
      - 342.6 WHITE ALDER
- 600 URBAN AND RESOURCE EXTRACTION
  - 670 OPEN SPACE AND RECREATIONAL FACILITIES
  - 671 DEVELOPED PARKS



LEGEND

- 300 Vegetative Types & Land Form Classes
- 72 Transect Area

SCALE IN FEET (APPROX.)



FISHERIES ENGINEERING RESEARCH PROGRAM  
 INVENTORY OF RIPARIAN HABITATS  
 1973-1975  
 SNAKE RIVER  
 RM 20 TO RM 27

U.S. ARMY ENGINEER DISTRICT, WALLA WALLA



