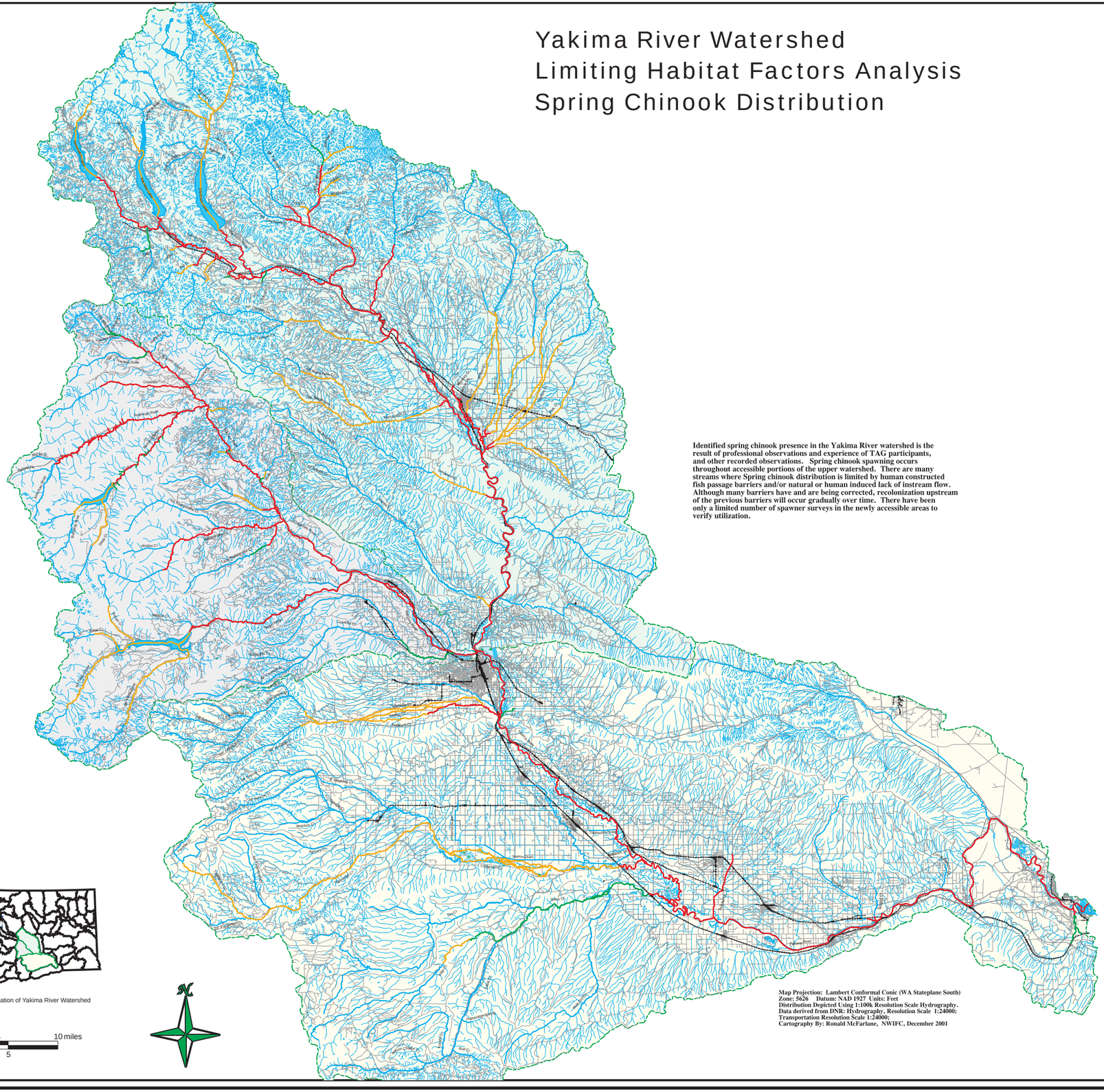
WRIAs 37 Through 39 Map Appendix Table of Contents

Map 1	Spring Chinook Distribution	2
Map 2	Fall Chinook Distribution	3
Map 3	Summer Steelhead Distribution	4
Map 4	Coho Distribution	5
Map 5	Bull Trout Distribution	6

Yakima River Watershed
Limiting Habitat Factors Analysis
Spring Chinook Distribution



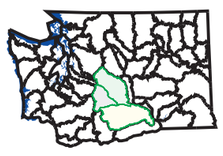
Identified spring chinook presence in the Yakima River watershed is the result of professional observations and experience of TAG participants, and other recorded observations. Spring chinook spawning occurs throughout accessible portions of the upper watershed. There are many streams where Spring chinook distribution is limited by human constructed fish passage barriers and/or natural or human induced lack of instream flow. Although many barriers have and are being corrected, recolonization upstream of the previous barriers will occur gradually over time. There have been only a limited number of spawner surveys in the newly accessible areas to verify utilization.

LEGEND

- Known Distribution
- Presumed Distribution
- Potential/Historic Distribution
- 24K Streams
- 100K Streams
- Roads
- Railroad
- WRIA Outline
- Lakes/Major Waterways
- Marsh/Wetland/etc

WRIA's

- WRIA 37, Lower Yakima
- WRIA 38, Naches
- WRIA 39, Upper Yakima



Location of Yakima River Watershed

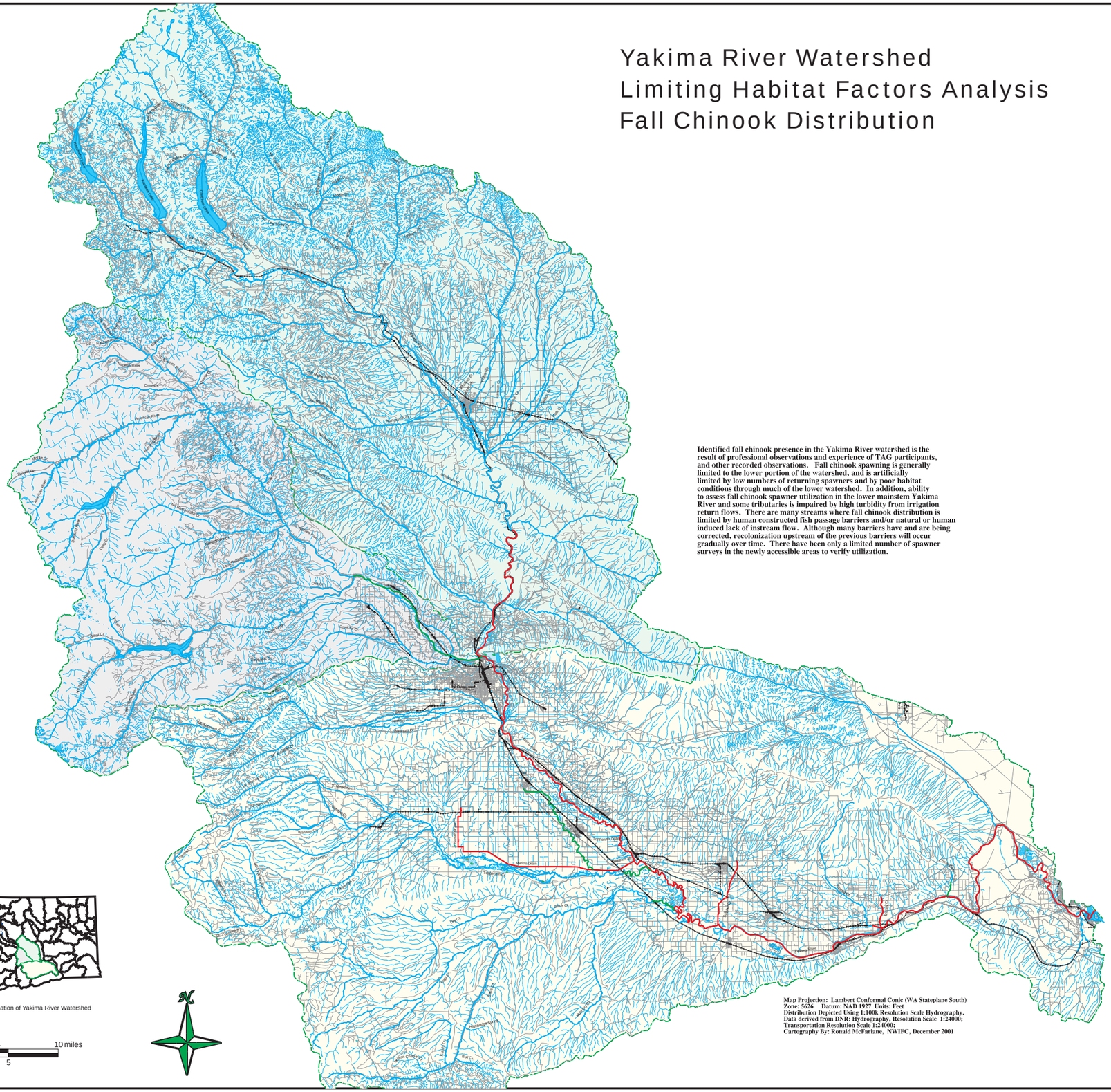
0 2 4 10 miles
1 3 5

Map Projection: Lambert Conformal Conic (WA Stateplane South)
Zone: 5626 Datum: NAD 1927 Units: Feet
Distribution Depicted Using 1:100k Resolution Scale Hydrography.
Data derived from DNR: Hydrography, Resolution Scale 1:24000;
Transportation Resolution Scale 1:24000;
Cartography By: Ronald McFarlane, NWIFC, December 2001

Washington State Conservation Commission

Northwest Indian Fisheries Commission

Yakima River Watershed
Limiting Habitat Factors Analysis
Fall Chinook Distribution



Identified fall chinook presence in the Yakima River watershed is the result of professional observations and experience of TAG participants, and other recorded observations. Fall chinook spawning is generally limited to the lower portion of the watershed, and is artificially limited by low numbers of returning spawners and by poor habitat conditions through much of the lower watershed. In addition, ability to assess fall chinook spawner utilization in the lower mainstem Yakima River and some tributaries is impaired by high turbidity from irrigation return flows. There are many streams where fall chinook distribution is limited by human constructed fish passage barriers and/or natural or human induced lack of instream flow. Although many barriers have and are being corrected, recolonization upstream of the previous barriers will occur gradually over time. There have been only a limited number of spawner surveys in the newly accessible areas to verify utilization.

LEGEND

- Known Distribution
- Presumed Distribution
- Potential/Historic Distribution
- 24K Streams
- 100K Streams
- Roads
- Railroad
- WRIA Outline
- Lakes/Major Waterways
- Marsh/Wetland/etc

WRIA's

- WRIA 37, Lower Yakima
- WRIA 38, Naches
- WRIA 39, Upper Yakima

Location of Yakima River Watershed

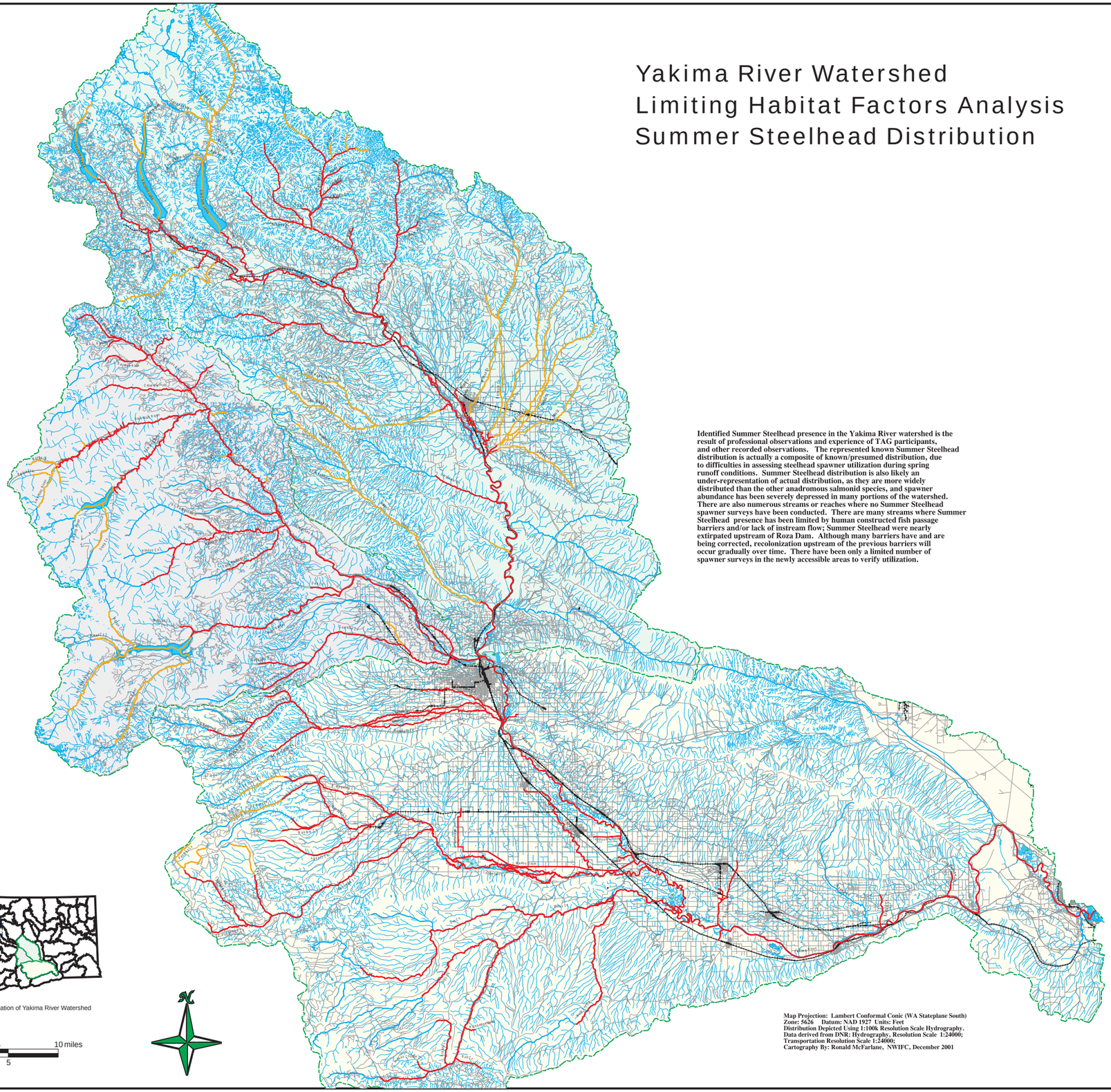
0 2 4 10 miles
1 3 5

Map Projection: Lambert Conformal Conic (WA Stateplane South)
Zone: 5626 Datum: NAD 1927 Units: Feet
Distribution Depicted Using 1:100k Resolution Scale Hydrography.
Data derived from DNR: Hydrography, Resolution Scale 1:24000;
Transportation Resolution Scale 1:24000;
Cartography By: Ronald McFarlane, NWIFC, December 2001

Washington State Conservation Commission

Northwest Indian Fisheries Commission

Yakima River Watershed
Limiting Habitat Factors Analysis
Summer Steelhead Distribution



Identified Summer Steelhead presence in the Yakima River watershed is the result of professional observations and experience of TAG participants, and other recorded observations. The represented known Summer Steelhead distribution is actually a composite of known/presumed distribution, due to difficulties in assessing steelhead spawner utilization during spring runoff conditions. Summer Steelhead distribution is also likely an under-representation of actual distribution, as they are more widely distributed than the other anadromous salmonid species, and spawner abundance has been severely depressed in many portions of the watershed. There are also numerous streams or reaches where no Summer Steelhead spawner surveys have been conducted. There are many streams where Summer Steelhead presence has been limited by human constructed fish passage barriers and/or lack of instream flow; Summer Steelhead were nearly extirpated upstream of Roza Dam. Although many barriers have and are being corrected, recolonization upstream of the previous barriers will occur gradually over time. There have been only a limited number of spawner surveys in the newly accessible areas to verify utilization.

LEGEND

- Known/Presumed Distribution
- Potential/Historic Distribution
- 24K Streams
- 100K Streams
- Roads
- Railroad
- WRIA Outline
- Lakes/Major Waterways
- Marsh/Wetland/etc

WRIA's

- WRIA 37, Lower Yakima
- WRIA 38, Naches
- WRIA 39, Upper Yakima

Location of Yakima River Watershed

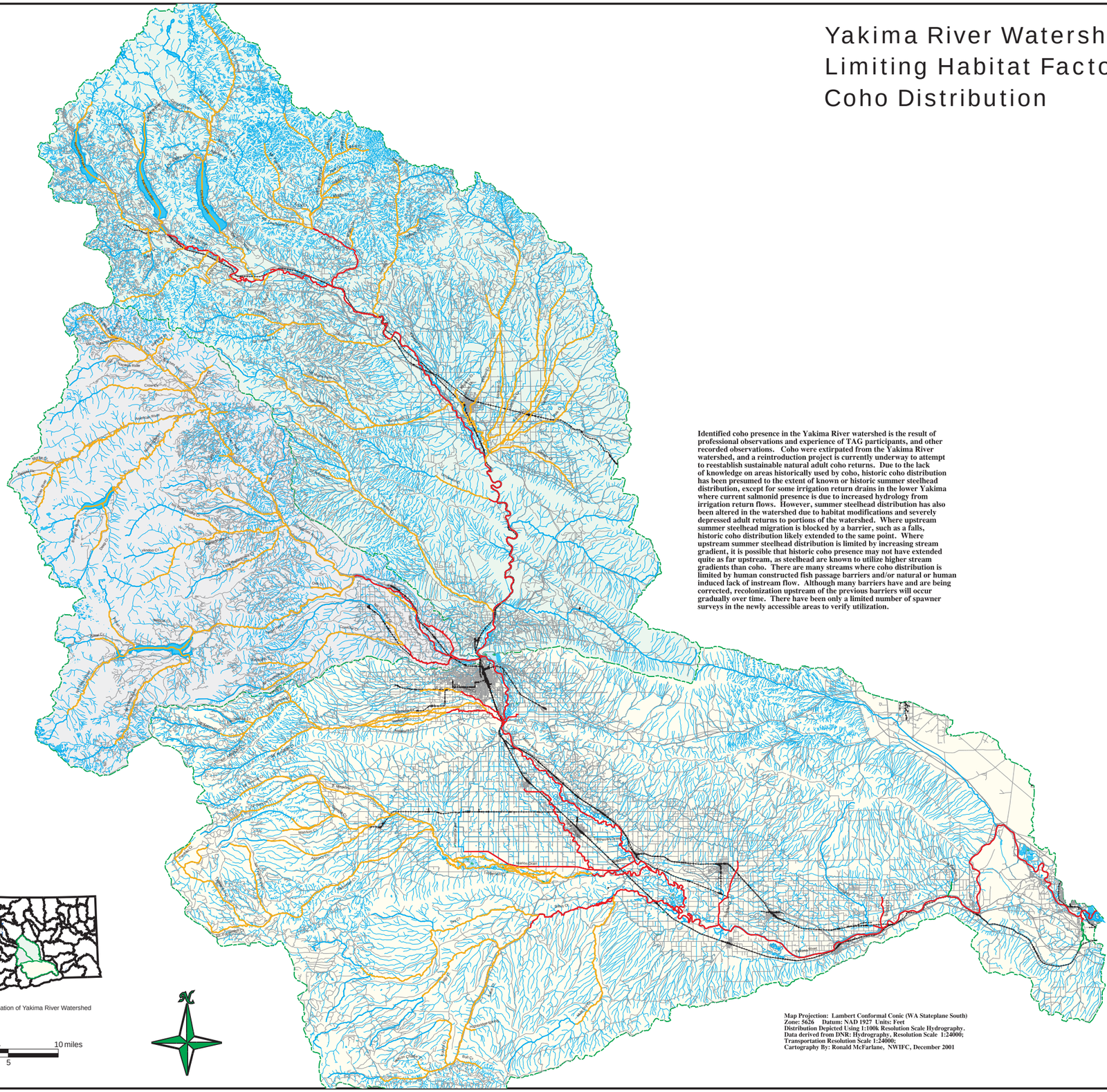
0 2 4 10 miles
1 3 5

Map Projection: Lambert Conformal Conic (WA Stateplane South)
Zone: 5626 Datum: NAD 1927 Units: Feet
Distribution Depicted Using 1:100k Resolution Scale Hydrography.
Data derived from DNR: Hydrography, Resolution Scale 1:24000;
Transportation Resolution Scale 1:24000;
Cartography By: Ronald McFarlane, NWIFC, December 2001

Washington State Conservation Commission

Northwest Indian Fisheries Commission

Yakima River Watershed
Limiting Habitat Factors Analysis
Coho Distribution



Identified coho presence in the Yakima River watershed is the result of professional observations and experience of TAG participants, and other recorded observations. Coho were extirpated from the Yakima River watershed, and a reintroduction project is currently underway to attempt to reestablish sustainable natural adult coho returns. Due to the lack of knowledge on areas historically used by coho, historic coho distribution has been presumed to the extent of known or historic summer steelhead distribution, except for some irrigation return drains in the lower Yakima where current salmonid presence is due to increased hydrology from irrigation return flows. However, summer steelhead distribution has also been altered in the watershed due to habitat modifications and severely depressed adult returns to portions of the watershed. Where upstream summer steelhead migration is blocked by a barrier, such as a falls, historic coho distribution likely extended to the same point. Where upstream summer steelhead distribution is limited by increasing stream gradient, it is possible that historic coho presence may not have extended quite as far upstream, as steelhead are known to utilize higher stream gradients than coho. There are many streams where coho distribution is limited by human constructed fish passage barriers and/or natural or human induced lack of instream flow. Although many barriers have and are being corrected, recolonization upstream of the previous barriers will occur gradually over time. There have been only a limited number of spawner surveys in the newly accessible areas to verify utilization.

LEGEND

- Known Distribution
- Presumed Distribution
- Potential/Historic Distribution
- 24K Streams
- 100K Streams
- Roads
- Railroad
- WRIA Outline
- Lakes/Major Waterways
- Marsh/Wetland/etc

WRIA's

- WRIA 37, Lower Yakima
- WRIA 38, Naches
- WRIA 39, Upper Yakima

Location of Yakima River Watershed

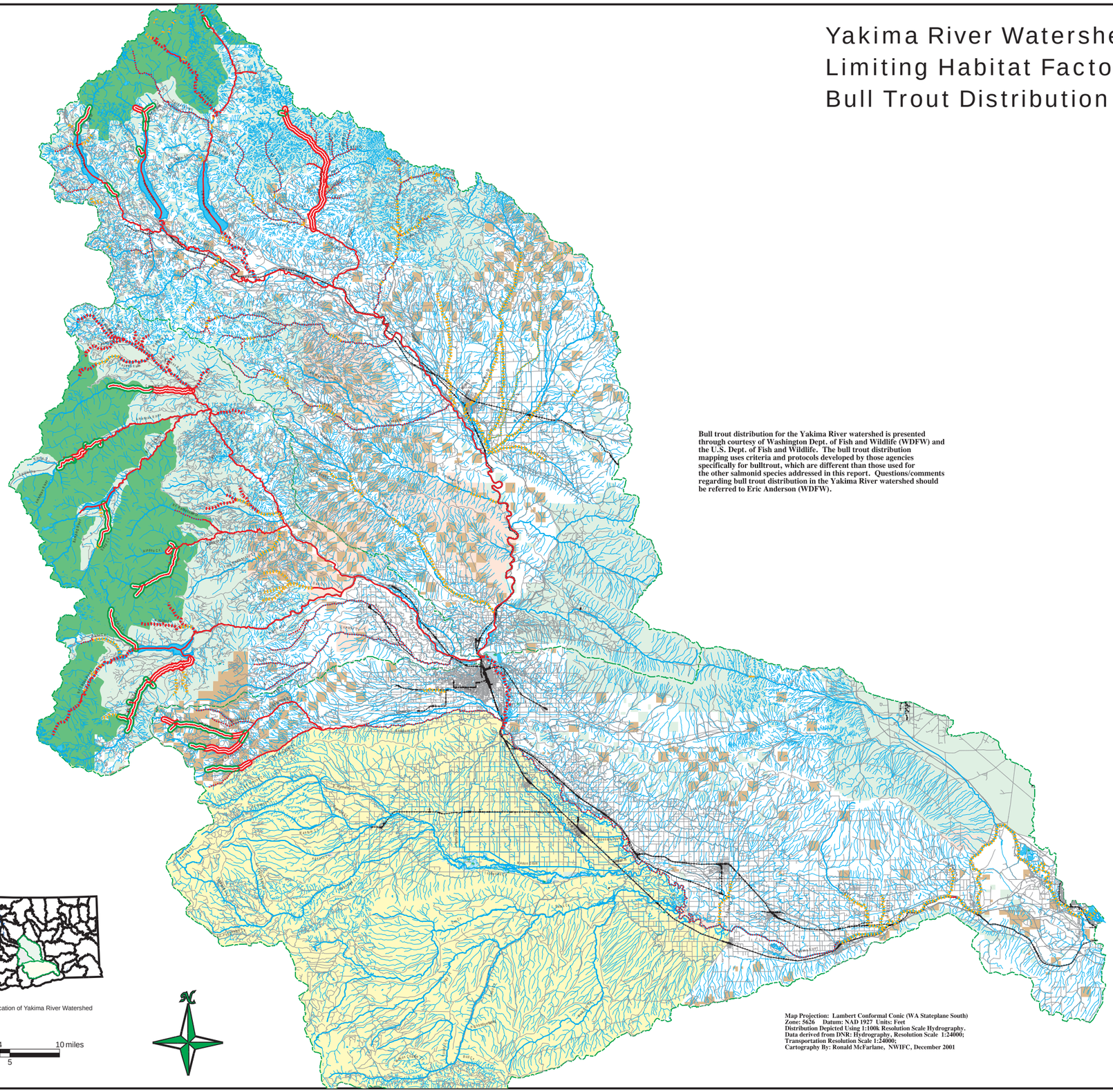
0 2 4 10 miles
1 3 5

Map Projection: Lambert Conformal Conic (WA Stateplane South)
Zone: 5626 Datum: NAD 1927 Units: Feet
Distribution Depicted Using 1:100k Resolution Scale Hydrography.
Data derived from DNR: Hydrography, Resolution Scale 1:24000;
Transportation Resolution Scale 1:24000;
Cartography By: Ronald McFarlane, NWIFC, December 2001

Washington State Conservation Commission

Northwest Indian Fisheries Commission

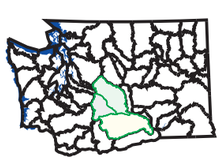
Yakima River Watershed
Limiting Habitat Factors Analysis
Bull Trout Distribution



Bull trout distribution for the Yakima River watershed is presented through courtesy of Washington Dept. of Fish and Wildlife (WDFW) and the U.S. Dept. of Fish and Wildlife. The bull trout distribution mapping uses criteria and protocols developed by those agencies specifically for bulltrout, which are different than those used for the other salmonid species addressed in this report. Questions/comments regarding bull trout distribution in the Yakima River watershed should be referred to Eric Anderson (WDFW).

LEGEND

- Currently Occupied
- Known Spawning
- Known Rearing
- Presumed
- Potential
- Undetected AFS
- Other Undetected
- Historic Doc
- 24K Streams
- 100K Streams
- Roads
- Railroad
- WRIA Outline
- Lakes/Major Waterways
- Marsh/Wetland/etc
- Tribal Land
- WA DNR Land
- Other State Land
- Park Non-Wilderness Federal Land
- Park Wilderness Federal Land
- Other Federal Land



Location of Yakima River Watershed

0 2 4 10 miles
1 3 5

Map Projection: Lambert Conformal Conic (WA Stateplane South)
Zone: 5626 Datum: NAD 1927 Units: Feet
Distribution Depicted Using 1:100k Resolution Scale Hydrography.
Data derived from DNR: Hydrography, Resolution Scale 1:24000;
Transportation Resolution Scale 1:24000;
Cartography By: Ronald McFarlane, NWIFC, December 2001

Washington State Conservation Commission

Northwest Indian Fisheries Commission