

CHAPTER 5.

FLOOD CONTROL FACILITIES AND PROGRAMS

The Yakima River is lined with levees of various forms throughout the CFHMP study area, on the Yakima River from the Yakima Canyon to Union Gap, and on the Naches from the Glead area to its confluence with the Yakima. Levees include public and private facilities of various design characteristics, and are designed for various purposes. Those that are designed for flood control provide various levels of protection. There is a major levee system on the Yakima River in the Gap-to-Gap reach. Portions of this levee system were originally constructed beginning in 1917 by Diking Improvement District #1. Other portions were constructed by the Corps of Engineers after WW II, in response to the floods that occurred in Yakima in 1933.

In the late 1960s, the Washington State Department of Transportation constructed US 12 and I-82 as levees and thus completed the major portions of the flood control facilities in the Study Area. This chapter describes flood control facilities in the study area and programs that affect flood control.

FACILITIES INVENTORY

Flood control works in the study area were inventoried by type and location; information was compiled from past studies, COE and County inspection reports, COE inventory records and drawings, and interviews with County and COE staff. The information was placed in a database to be integrated into the County's GIS. The inventory focused on facilities maintained by the County; other facilities were inventoried if information was available. The location and condition of the facilities was provided by the County. Appendix D – Flood Control Works Inventory, has an overview map, a table of the inventoried levees within the planning area, and has maps of the Federal Project Levee right bank and left bank. The following information is provided in Appendix D.

- Facility name and location
- Type of structure
- Managing agency
- Physical characteristics (dimensions, construction material, elevations)
- Level of protection, freeboard, and internal drainage structures for levee facilities
- Agency responsible for maintenance, schedule of maintenance, and previous maintenance performed
- Inspection deficiencies, if applicable.

Yakima Levee Project

On June 28, 1938, the Secretary of War authorized construction of the Yakima River flood control works to protect property along the Yakima and Naches River from floods of magnitudes up to that of the 1933 flood (65,000 cfs at Parker). The project involved constructing earthen levees and related drainage structures from the US 97 bridge over the Yakima River to the Old Moxee Highway (SR 24) Bridge. Approximately 25,000 feet of levees were constructed along the right bank of the Yakima River. A 1,400-foot low levee was constructed along the embankment for the

Northern Pacific Railroad Moxee branch line. Construction began on July 15, 1947, and was completed March 26, 1948. The structures have since been maintained and upgraded.

In the early 1990s, Diking Improvement District #1 proposed turning over management responsibility for their levee system on the east bank of the Yakima River from Terrace Heights Drive to SR24, to Yakima County, as a portion of the Yakima Project. In order to become part of the Project, these levees needed to be brought up to Corps standards. As a result the entire Project was examined and upgraded to convey the projected 100 year flood (53,600 cfs at Parker) with 3 feet of freeboard. This Project was completed and levee ownership and management responsibility transferred to Yakima County in 1995, one year before the 1996 flood.

The eight levees and additional drainage structures currently included in the federal project are listed in Table 5-1. Drainage structures were built to convey surface runoff and irrigation water through the levees. Most contain floodgates to keep floodwater from backing up into the drainage channel.

The levees and associated structures are maintained by Yakima County, and annually inspected by the Corps of Engineers. Maintenance standards are defined in the "Levee Manual" that was originally developed in 1948, with some amendments since that date. Any change to the configuration or materials used in the levees requires permission from the Corps of Engineers in order to maintain the "certification" of the levee to retain the 100 year flood with 3 feet of freeboard. Periodically, usually in association with a new flood study or flood plain remapping project, the adequacy of the entire Federal Project to meet the goal of containing the 100 year flood with a minimum 3 feet of freeboard is analyzed by the Corps, or through Corps approved processes. These reviews have resulted in improvements (raising and widening) to portions of the levees (or attempted changes in channel conditions) in the early 1970s, in the mid 1980s, and more recently with the inclusion of the Diking District #1 levee in the mid-1990s.

During a flood event, the Yakima County continuously inspects the levee system, and will respond to needed maintenance during the flood. If there is a significant risk of levee failure due to erosion or overtopping, the County can request federal assistance from the Corps, and the Corps will fully fund the flood fight on these levees. Post-flood repairs to these levees that are not defined as normal maintenance will also be performed by the Corps or under Corps direction and funding.

Public Law 84-99 Levees

Public Law 84-99 authorizes the use of an emergency fund to prepare for emergency response to natural disaster, carry out flood-fighting and rescue operations, or repair or restore any flood control work threatened, damaged, or destroyed by flood. Disaster assistance is administered by the Secretary of the Army and implemented by the COE. A determination of eligibility follows detailed policies and procedures outlined in *Natural Disaster Procedures* (COE 1991). Eligibility requirements for PL 84-99 certification are typically less stringent than the requirements for federally authorized flood control works, and the levels of flood protection provided by these levees is also much less than those that are part of a federal flood control project.. Any completed, locally operated and maintained flood control work can be eligible for PL 84-99 funding except the following:

- Those constructed, modified, or repaired with financial assistance from other federal agencies

TABLE 5-1.
INVENTORIED LEVEES WITHIN CFHMP STUDY AREA

River	Identification ^a	Managing Agency	Length (feet)	Source of Elevation Data	Level of Protection ^b	Remarks
<u>Authorized COE Yakima Project Federal Levees</u>						
Naches	FED - RB Upper	Yakima County	7,800	Spot Survey 2007/LIDAR/ As built/1998	100 (3)	Naches Railway to Cascade Mill
Yakima	FED - RB Lower	Yakima County	17,100	Spot Survey 2007/LIDAR/ As built/1998	100 (3)	Cascade Lumber to Old Moxee Hwy.
Yakima	FED - L Bank	Yakima County	25,170	LIDAR/2000	100 (3)	Resthaven Road to intake at SR24
Yakima	Marsh Road	Yakima County	2,000	LIDAR/2000	100 (3)	NPRR/Moxee Line to East Bank Yakima River
		<i>Total</i>	52,070			
<u>PL 84-99 Certified Levees</u>						
Yakima	WWTP	City of Yakima	5,477	COE Profile Dwg D-8-4-371	5 (1)	Yakima Regional WWTP levee
		<i>Total</i>	5,477			
<u>Non-certified Levees^c</u>						
Yakima	Diking Dist # 1	Diking Imp. Dist. No. 1	9,396	COE Profile Dwg D-8-4-371	5 (1)	Downstream of SR 24 Bridge
Yakima	Selah Gravel Pit	Private	---	CH2M Hill 1984	< 100 (3)	Selah Gravel Pit Levee
Yakima	BOR-W	BOR	2900	YC-93, 2000 LIDAR	Unknown	COE Update May 2007
		<i>Total</i>	12,296			
<p>a. FED = Federal; RB = Right Bank; LB = Left Bank; YSEG = Yakima River Segment</p> <p>b. Level of protection is noted by flood event and freeboard as designated by the COE (e.g., 100 (3) refers to a level of protection equal to the 100-year flood event with 3' of freeboard).</p> <p>c. These levees were initially inspected for PL-99 certification.</p>						

- Those constructed, operated, and maintained by the COE or other federal agencies
- COE or other federal agency projects uncompleted or under construction
- Those not meeting design and maintenance standards.

Nine PL 84-99-eligible levees were identified in Yakima County. Two are located in the study area of this CFHMP and are shown in Table 5-1, the others are shown in Table 5-2. These levees have been certified by the COE as meeting all requirements of PL 84-99. These structures are listed as *active* with the COE. Six are maintained by the County, two by the City of Yakima, and one by the Yakama Indian Nation. The County considers one levee (FED-LB1) listed by the COE as PL 84-99-eligible (PL99-YSEG9) to be part of the federal levee system.

These levees are also annually inspected by the COE, and maintenance performed is by the respective local agency. If maintenance is not performed, the levee are dropped from the P.L. 84-99 program. During a flood event, the Corps will assist in the protection of these facilities, with 20% of that cost being borne by the local agency. During a significant flood events, the majority of these structures will be overtopped or “flanked” any flood that exceeds their design capacity, and will often require repair after such an event. Post-flood of these facilities is allowed under a 20% local and 80% federal cost share basis.

Highways

Within the study area, there are 3 sections of State or Federal Highways that act as levees, provide a 100-year level of protection to FEMA requirements, and have a major influence on the depiction of flood hazard on the FEMA flood maps. These include the following sections:

- I-82 in the Selah Reach—Between the East Selah and State Route 821 (Canyon Road) exits, I-82 acts as a levee protecting lands to the east to near the 100 year flood. At the 100 year flood, the FEMA maps depict floodwaters overtopping I-82 at a relatively small area (250 feet in width) immediately downstream from the SR 821 exit, bringing a significant area to the east of the road into the 100 year floodplain. These waters are then shown flowing back toward the river through the East Selah exit underpass.
- I-82 in the Gap-to-Gap Reach and downstream from Selah Gap—The I-82/SR 12 interchange acts as a flood barrier up to the 100 year flow. The current FEMA flood maps show limited areas of flooding in the City of Yakima where floodwaters enter areas of the city through underpasses for roads or railways. In 1999 the City of Yakima undertook a project to raise portions of the roadways or provide means of sealing underpasses to prevent floodwaters from entering the City. These actions have been approved by FEMA and have eliminated any areas within the city from the regulatory floodplain.

At Spring Creek culvert, I-82 is shown as the boundary of the 100 year floodplain, and is overtopped by the 500 year flood. From this point downstream to the I-82 bridge, which crosses the river, the freeway is the boundary of the Yakima River floodplain.

TABLE 5-2.
INVENTORIED LEVEES OUTSIDE CFHMP STUDY AREA

River	Identification ^a	Managing Agency	Length (feet)	Source of Elevation Data	Level of Protection ^b	Remarks
<u>PL 84-99 Certified Levees</u>						
Naches	PL99-NSEG1	Yakima County	2,336	COE; needs to be verified	10 (3)	Rambler Park levee, 550' added during 1996 flood
Naches	PL99-NSEG2	Yakima County	2,378	COE; needs to be verified	5 (1)	McCormick levee
Naches	PL99-NSEG7	Yakima County	5,885	COE; needs to be verified	5 (1)	South Naches Road
Naches	PL99-NSEG8	Yakima County	1,688	COE	5 (1)	South Naches Road
Naches	PL99-NSEG9	Yakima County	2,100	COE; needs to be verified	5 (1)	Near Craig Road
Naches	PL99-NSEG6	City of Yakima	1,152	COE; needs to be verified	5 (1)	City of Yakima water treatment plant levee
Yakima	PL99-YSEG2A	Yakama Indian Nation	11,450	COE Prof Dwg D-8-4-371	5 (1)	Inspected in 2002
		<i>Total</i>	26,989			
<u>Non-certified Levees^c</u>						
Yakima	YSEG1	Yakama Indian Nation	4,450	COE; needs to be verified	10 (3)	Near Durham Road
Yakima	YSEG2B	Yakama Indian Nation	3,745	COE Prof Dwg D-8-4-371	5 (1)	Near Iverson Road
Yakima	YSEG3	Yakima County	720	COE Prof Dwg D-8-4-371	5 (1)	Donald bridge levee, removed in 2004
Yakima	YSEG4	Yakima County	400	COE Prof Dwg D-8-4-371	5 (1)	Donald bridge levee, removed in 2004
Yakima	YSEG5	Yakama Indian Nation	7,300	COE Prof Dwg D-8-4-371	5 (1)	Downstream of Donald Road
Yakima	YSEG6	Yakima County	3,600	COE Prof Dwg D-8-4-371	5 (1)	Downstream of Union Gap
Naches	NSEG4	Yakima County	800	COE; needs to be verified	10 (3)	Near Kershaw Road
Naches	NSEG5	Yakima County	1,655	COE; needs to be verified	5 (1)	Near Eschbach Park
Naches	NSEG10	Yakima County	693	COE; needs to be verified		Near Craig Road
Naches	NSEG11	Yakima County	2,140	COE; needs to be verified	5 (1)	Downstream of Hwy 410 embankment
Naches	NSEG12	Yakima County	400	COE; needs to be verified	5 (1)	Near Cliffdell Road bridge
		<i>Total</i>	25,903			

- a. YSEG = Yakima River Segment; NSEG = Naches River Segment
- b. Level of protection is noted by flood event and freeboard as designated by the COE (e.g., 10 (3) refers to a level of protection equal to the 10-year flood event with 3' of freeboard).
- c. These levees were initially inspected for PL-99 certification; only NSEG10 met this criterion.

- US 12 on the Lower Naches River—Historically the floodplain of the Naches River extended beyond Fruitvale Avenue in the City of Yakima and in areas of Yakima County upstream to the current study area limit at the US 12 crossing of the Naches. The current configuration of US 12 contains the 100 and 500 year floods, protecting a large area of the City of Yakima from flooding by the Naches River. Failure of US 12 during a flood event would prove catastrophic to large areas of Yakima as there are currently no facilities to let floodwaters exit the City and return to the Yakima or Naches rivers. Repeated damage to US 12 upstream of the 16th Avenue Exit, even during relatively minor flood events, presents high levels of flood hazard not only due to loss of transportation infrastructure, but also due to the key role that this portion of highway plays in providing a high level of flood protection to a large urbanized area.

The Yakima Project levees are connected to I-82 downstream of the I-82/SR 12 interchange, and provide 100 year protection until the Federal levees end near SR 24. Natural topography between the Yakima River and I-82 delimits the 100 year floodplain until upstream of Valley Mall Boulevard, where the freeway does bound the floodplain for approximately 900 feet. Natural topography separates the freeway from the floodplain at Valley Mall Boulevard and downstream, until the Spring Creek culvert which crosses beneath the freeway.

The backwater of the Yakima River is shown as crossing underneath the freeway, at the Wide Hollow Creek culverts in the most recent maps. Comparing the floodplain maps over time, older editions showed only limited flooding due to backwater from the Yakima River. More recent FEMA maps show increased areas of floodplain, and increasing flood elevations over time.

It should also be noted that I-82 did overtop during the 1996 flood just downstream from the Hwy 97 interchange, indicating that the protection level afforded by the freeway may not be accurately reflected in the maps. Overtopping of I-82 is a major source of flood hazard in and of itself, both to the traveling public on the freeway. The closure of I-82 has tremendous effects on the economy and on emergency services. Increased demand for equipment and personnel during fight floods is a large impact to many local agencies.

Other Flood Control Works

Other flood control works include levees inspected for PL 84-99 certification that did not meet the minimum eligibility requirements (Tables 5-1 and 5-2). These provide minimal protection and are likely not maintained. The Corps removed several of these from the PL 84-99 list as not meeting required standards. Eight were initially managed by the County, but are not currently being maintained; three were initially managed by the Yakama Indian Nation, and three are private levees. In addition, Table 5-3 lists drainage facilities inventoried by the Bureau of Reclamation.

TABLE 5-3.
INVENTORIED DRAINAGE FACILITIES ALONG YAKIMA RIVER

Description	Location	Dimensions	Material ^a	Source ^b	Comments
NPRR Underpass Closure Structure	500 feet south of Naches River bridge	8"w x 10"d x 14'l stop planks	Wood	COE 1955	Start erecting at 9.0 feet stage on Naches gauge ^c
Hubbard Canal Closure Structure	0.2 miles southwest of US 12 bridge across Naches River	6"w x 10"d x 9'l stop planks	Wood	COE 1955	Start erecting at 8.5 feet stage on Naches gauge ^c
Union Canal Closure Structure	Immediately u/s of US 410	5.5'w x 3.5'd	Sandbags	COE 1955	Start erecting at 9.0 feet stage on Naches gauge ^c
Pacific Power & Light Canal Closure Structure	Midway between US 410 and NPRR bridges	6"w x 10"d x 10'l stop planks	Wood	COE 1955	Start erecting at 6.0 feet stage on Naches gauge ^c
Roza Wasteway #2 County Highway Crossing Closure Structure	400 feet d/s of NPRR Moxee Branch line	Not Available	Sandbags	COE 1955	Start erecting when water surface is 1 foot lower than roadway
Selah Sewage Plant and drain outfall	Right Bank, River Mile 117.1	10' w x 1'd	Not Available	BOR 1974	
Drainage Culvert	Right Bank, 500 feet d/s of US 82	24"Ø	CMP	COE 1955	
Boise-Cascade Mill Diversion	Right Bank, 1,800 feet d/s of US 82	36"w x 48"d	Concrete	COE 1955	
Boise-Cascade Mill Diversion	Right Bank, River Mile 115.8	48" gates	Concrete	BOR 1974	20'w x 4'd approach channel
Drainage Culvert	Right Bank, 3,400 feet d/s of US 82	24"Ø	CMP		
Boise Cascade Mill Wasteway	Right Bank, 6,700 feet d/s of US 82	Not Available	Not Available	COE 1955	
Drain Discharge	Right Bank, River Mile 114.55	Not Available	Not Available	BOR 1974	4' x 2' channel
Boise Cascade Mill Waste Drain	Right Bank, River Mile 114.5	Not Available	Not Available	BOR 1974	
Drainage Culvert	Right Bank, 1,650 feet d/s of NPRR Moxee Branch Line	2 - 36"Ø	CMP	COE 1955	Contains gates
Boise Cascade Mill Waste Drain	Right Bank, River Mile 114.1	2 - 36"Ø	Concrete	BOR 1974	Contains gates
Drainage Culvert	Right Bank, 1,900 feet d/s of NPRR Moxee Branch Line	2 - 36"Ø	CMP	COE 1955	Contains gates
Drainage Culvert	Right Bank, 3,100 feet u/s of Old Moxee Highway	36"Ø	CMP	COE 1955	Contains gate
Drainage Culvert	Right Bank, 950 feet u/s of Old Moxee Highway	6"Ø	CMP	COE 1955	Contains gate

TABLE 5-3.
INVENTORIED DRAINAGE FACILITIES ALONG YAKIMA RIVER

Description	Location	Dimensions	Material ^a	Source ^b	Comments
Drainage Culvert	Right Bank, 580 feet u/s of Old Moxee Highway	36"Ø	CMP	COE 1955	Contains gate
Gravel Pit Drain Discharge	Right Bank, 80 feet u/s of Old Moxee Highway, River Mile 111.5	36"Ø	CMP	COE 1955 BOR 1974	Contains gate
City of Yakima Storm Drain	Right Bank, River Mile 111.01	36"Ø	Not Available	BOR 1974	
Yakima Sewage Plant Discharge	Right Bank, River Mile 111.0	Not Available	Not Available	BOR 1974	
Yakima Sewage Plant Discharge	Right Bank, River Mile 110.95	12"Ø	Not Available	BOR 1974	
Yakima Sewage Plant Discharge	Right Bank, River Mile 110.4	Not Available	Not Available	BOR 1974	3.5'w x 3'd channel
Drain Discharge	Right Bank, River Mile 107.6	Not Available	Not Available	BOR 1974	
Moxee Irrigation Canal	Left Bank, Near u/s end of Roza Wasteway #2	48" x 72"	RCP	COE 1955	Contains gates
Union Gap Irrigation Canal	Left Bank, 800 feet from u/s end of Roza Wasteway #2	36" x 48"	RCP	COE 1955	Contains gate
Drainage Culvert	Left Bank, through embankment of NPRR Moxee Branch line, 350 feet east of trestle	36"Ø	RCP	COE 1955	Contains gate
Union Gap Canal Headworks	Left Bank, River Mile 114.7	60" gate	Not Available	BOR 1974	12'w x 4'd channel
Richartz Ditch Diversion	Left Bank, River Mile 114.6	36" gate	Not Available	BOR 1974	5'w x 2'd channel
Richartz Ditch Wasteway	Left Bank, River Mile 113.35	Not Available	Not Available	BOR 1974	2'w x 3'd channel
Drainage Culvert	Left Bank, through Roza WW dike, 400 feet d/s of NPRR	36"Ø	RCP	COE 1955	Contains gate
Drainage Culvert	Left Bank, 250 feet u/s of Terrace Heights Blvd.	10"Ø	Steel	COE 1955	
Roza Wasteway #2	Left Bank, River Mile 113.3	Not Available	Not Available	BOR 1974	
Drainage Culvert	Left Bank, u/s edge of Terrace Heights bridge	12"Ø	CMP	COE 1955	
Drainage Culvert	Left Bank, 650 feet d/s of Terrace Heights bridge	8"Ø	Concrete	COE 1955	
Snokist Grower Plant Discharge	Left Bank, River Mile 113.0	20"Ø	Concrete	BOR 1974	

TABLE 5-3.
INVENTORIED DRAINAGE FACILITIES ALONG YAKIMA RIVER

Description	Location	Dimensions	Material ^a	Source ^b	Comments
Drainage Culvert	Left Bank, 1,575' d/s of Terrace Heights bridge	24"Ø	Concrete	COE 1955	
Drainage Culvert	Left Bank, 2,700 feet d/s of Terrace Heights bridge	6"Ø	Concrete	COE 1955	
Drainage Culvert	Left Bank, 3,535 feet d/s of Terrace Heights bridge	12"Ø	CMP	COE 1955	Contains gate
Drainage Culvert	Left Bank, 4,360 feet d/s of Terrace Heights bridge	18"Ø	CMP	COE 1955	Contains gate
Drainage Culvert	Left Bank, 5,100 feet d/s of Terrace Heights bridge	18"Ø	CMP	COE 1955	Contains gate
Blue Slough Diversion	Left Bank, 7,200 feet d/s of Terrace Heights bridge, River Mile 112.0	36"Ø	CMP	BOR 1974	Contains gate
Drain Discharge	Left Bank, River Mile 109.9	Not Available	Not Available	BOR 1974	10'w x 1.5'd
Moxee Main Drain Outlet	Left Bank, River Mile 107.3	Stream	Not Available	BOR 1974	

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- a. CMP = Corrugated Metal Pipe; RCP = Reinforced Concrete Pipe
 - a. Structures inventoried by COE are part of the authorized federal system. A few structures are inventoried by both sources.
 - a. Zero at gauge equals an elevation of 1,066.62 feet.

OPERATION AND MAINTENANCE

The County inspects the Yakima Project facilities semi-annually and the County administered PL 84-99-eligible levees annually. Flood control works are inspected for the following:

- Vegetation growth
- Bank and toe erosion
- Caving of levee slopes
- Seepage, saturation areas or boils
- Accumulation of sediment and debris
- Road condition
- Encroachments by culverts or drainage channels
- Proper operation and condition of closure structures and materials
- Proper operation and condition of drainage and irrigation structures.

The County follows the 1955 *Operations and Maintenance Manual* developed for federal facilities (COE 1955) with a few modifications. A draft Memorandum of Agreement (MOA) between the COE, Ecology, and WDFW guides the County on vegetation and habitat management for flood control structures. In addition, the County performs levee maintenance under a modified Mitigated Determination of Non-significance that incorporates the MOA and additional conditions.

SPECIAL DISTRICTS

Yakima County has a variety of special districts, including diking, irrigation, and drainage districts. Diking districts construct and maintain dikes and levees; irrigation districts provide and maintain irrigation facilities; and drainage districts provide drainage facilities for agricultural areas. These are municipal corporations that provide a public benefit and have no direct connection to County government other than project approval by the County Engineer and possible engineering support. They are controlled by locally elected governing bodies and serve constituents within their district boundaries. Funding is derived from assessments on properties that benefit from constructed improvements.

Yakima County has five diking districts. The geographic coverage of Diking District 1, the only one now active, extends from Selah Gap to Union Gap (Figure 5-1). The district recently upgraded the KOA levee upstream of the SR 24 bridge, and had it certified as a 100-year levee by the COE. The KOA levee is currently part of the federal levee system and is maintained by the County.

OTHER FLOOD-RELATED PROGRAMS

In the past year, activity concerning the management of the Yakima River Basin has increased. Programs are being developed to address threats to water supply, water quality, fisheries and wildlife resources, and the basin's ecosystem. Current programs have brought together concerned citizens with a mix of interests to address these issues. Local coalitions have been formed and conservation programs are underway. Each of these programs affects conditions in the Yakima River Basin, and therefore flooding conditions.

United States Bureau of Reclamation, Yakima Project

The U.S. Bureau of Reclamation developed an "Interim Comprehensive Basin Operating Plan" for the Yakima Project in November of 2002. The following italicized portions of the guidelines are directly from this operating plan.

"Reclamation operates the Yakima Project to meet the specific purposes of irrigation water supply, flood control, and instream flows for fish. Flood control operations that may occur are guided by flood control space guidelines for the reservoirs and by forecasts of future runoff. The main objective during flood control operations is to provide maximum protection against flood damage in the Yakima River basin as a whole, without jeopardizing the irrigation water supply for the following year. Flood control in the Yakima River basin is supported by the project's five major storage reservoirs: Keechelus, Kachess, Cle Elum, Bumping, and Rimrock. These reservoirs affect the runoff from only 578 square miles (15.8 percent) of the 3,660 square miles located above the Parker gaging station. However, the runoff volume above the reservoirs represents only approximately 50 percent of the 3.4 MAF of unregulated yearly runoff as calculated at the Parker Gage, downstream from Union Gap. The reservoirs began providing flood control to the lower basin immediately following their construction."

"Flooding has been significantly reduced each year since storage development of the Yakima Project. Following the flood of May 1948, which virtually destroyed the city of Vanport, Washington, Congress required water resource agencies to develop plans to avert similar disasters in the future. Between 1948 and 1955, water forecasts were established for the main stem and all tributaries of the Columbia River, and formal flood operations began in the Yakima River basin "

A more defined set of guidelines for flood control management was developed in the early 1970s after flood control operations during the 1972 flood resulted in a less than full storage of water for irrigation, and a reduced irrigation water supply for the 1972 water year.

"The use of the "Flood Control Rule Curve (FCRC)," dated February 25, 1974, by D.R. Yribar, is relatively straightforward and is based upon the premise of attempting to maintain flows at the Parker gaging site at no more than 12,000 cfs during the non-irrigation season and 17,200 cfs, including diversions of 5,200 cfs above Parker, during the irrigation season."

"During the winter months, November through February, the flood guide seeks to maintain 300 thousand acre-feet (KAF) of unfilled storage space to provide protection against a winter flood event before the spring forecasts become available.."

"The general flood control operation policy is to use the space available in system storage to avoid or reduce flood events in the down river system based upon the historical flood stages. Events are forecasted by the Northwest River Forecast Center in Portland, Oregon and/or the National Weather Service in Pendleton, Oregon which provide warnings to Reclamation and the public of flood events. After the flooding below the reservoirs recedes, when necessary, storage releases are made from the reservoirs in an attempt to return to levels prescribed in the Flood Control Rule Curve and to prepare for the next possible event. Care is taken to make releases only when downstream river stages are below flood stage, and to hold river levels below flood stage, if possible."

"Project operations uses the FCRC as a guideline, not as a rule of operation. The FCRC can cause problems when trying to fill the reservoirs to maximum storage for irrigation use. If followed to the letter of the rule, flood storage space will be maintained to the end of forecast period and the reservoir storage system may not fill."

Yakima Greenway Foundation

The Yakima Greenway Foundation (Foundation) was created in 1980 to conserve, enhance, and maintain the Yakima River corridor as a continuing, living resource for future generations. The Foundation is guided by the Yakima Greenway Master Plan, originally developed in 1976 and most recently updated in September 1995. The State, the City of Yakima, and Yakima County adopted the plan September 18, 1995. The master plan helps direct future development in the Yakima River corridor, and will therefore affect possible flood hazard management alternatives. The 1995 Yakima Greenway Master Plan Update is described below (Foundation 1995).

The Greenway Corridor

The 3,600-acre Greenway corridor extends from Yakima Canyon to Union Gap (Figure 5-2). Greenway boundaries were originally defined in 1977 by the state legislature with the creation of the Washington State Yakima River Conservation Area. The Foundation is actively seeking to expand this conservation area.

The Greenway corridor is subdivided into *natural*, *conservation*, and *recreation* areas. A natural area has paramount natural value in which recreational use will be incidental to the goals of preservation, enhancement, and reclamation. A conservation area has lower natural value and a higher need for reclamation and enhancement, or a greater suitability for recreational use. Conservation areas may contain both natural segments and recreational-use segments. A recreation area may have natural segments, but is primarily suitable for recreational use.

Currently, the Greenway corridor consists of one proposed natural area, three conservation areas, two recreational areas, and one proposed recreational area. Each Greenway corridor area contains various facilities developed by the Foundation and supporting public agencies and private land owners. Greenway facilities include pathways, recreational sites, boat landings, parks, playgrounds, campgrounds, and group camps. A summary of Greenway facilities is presented in Table 5-4; their locations are shown in Figure 5-2.

Many Greenway facilities, specifically trails, have been constructed on the top of existing dikes and levees. The Yakima Greenway provides access for levee maintenance and repair and to be responsible for damage to trails caused by flood damage.

Land Use Policy and Design Standards

Yakima Greenway land use policy originated from the 1974 Yakima County Shoreline Master Program to promote reasonable use of Yakima County shorelines, preserve and protect fragile natural shoreline resources, and increase public access to publicly owned shorelines. Establishment of the Greenway, a designated Washington State Conservation Area, allows Yakima County Commissioners to authorize and coordinate the acquisition and development of land within the Greenway for conservation and parkway purposes.

TABLE 5-4.
EXISTING AND PROPOSED YAKIMA GREENWAY FACILITIES

Facility Description	Location	Comment
Selah Recreation Area (Proposed)		
Greenway Pathway: Multi-use, recreational pathway	Both sides of river where land forms and water course are most suitable	Incorporation of this area into the Greenway will require expansion of the Washington State Yakima River Conservation Area, as defined by the Washington State Legislature in 1977.
Gravel Pit Ponds: Boating, canoeing, fishing, swimming	North of Elks Golf Course, south of Harrison Road on west side of river	Project would depend on successful negotiation with private landowners. Incorporation of this area into the Greenway will require expansion of the Washington State Yakima River Conservation Area, as defined by the Washington State Legislature in 1977.
Selah Boat Landing: To serve as northernmost river access in Greenway corridor	At Harrison Road	
Selah Gap Recreation Area		
Harlan Landing/Rovetto Property: River access and picnic area. Pond on north of Rovetto property should be improved for public fishing.	Directly in Selah Gap, with access off Resthaven Road	Harlan Landing was completed in 1989, dedicated in 1990. Greenway should work to acquire or lease and improve Rovetto property north of Harlan Landing. Peninsula between Naches and Yakima Rivers should be kept natural, with limited access through nature trails from trolley/freeway bridges.
Bergland (Gordon) Lake: Natural swimming pond with appropriate support facilities; possible fishing	Pond wedged between I-82, Highway 12, and Naches River. Access from 6th Avenue and from First St on Tamarack and Gordon Avenues, from Harlan Landing, and from Noel & Plath Pathways	Project dependent on negotiations with private landowner, trolley association, and others. Major clean-up and continuing maintenance would be expensive. Pathway currently runs along north and west edges of lake and links with Plath Pathway.
Rotary Lake (formerly Freeway Lk): Primarily fishing lake with special facilities for access by the disabled	East of I-82, south of Naches Ricer confluence, west of Yakima River	Could add more fishing docks and paths if use warrants. Name has been officially changed to Rotary Lake by State Geographic Board. DFW stocks lake annually. Dedicated in 1989.
Naches Natural Area (Proposed)		
Greenway Pathway: Paved connection to existing Greenway path system to tie in 40th Avenue.	Between 40th Ave & Cowiche Canyon Rd (east end of CC Trail). Course to be determined.	Some phases of project dependent on negotiations with private landowners. May require expansion of the Yakima River Conservation Area, defined by the State Legislature in 1977.
Plath Pathway: Paved trans/recreation route providing connection to existing Greenway path system from w side of town.	Between 6th Avenue and 40th Avenue/Fruitdale Blvd along the Naches River, Lake Aspen, Willow Lake, and Myron Lake.	This facility built and dedicated in 1995.

TABLE 5-4 (continued).
EXISTING AND PROPOSED YAKIMA GREENWAY FACILITIES

Facility Description	Location	Comment
Terrace Heights Conservation Area		
Boise Cascade Property: Open-space area with river access, parks, and pond fishing.	Between I-82 and Yakima River, south of Rotary Lake, north of Terrace Heights interchange (approx. 88 acres)	Formerly owned by Boise Cascade and used as wood and bark chip fill area, donated to the Yakima Greenway Foundation in 1987.
Sunrise Rotary Park / McGuire Community Playground: Bark-fill reclamation, children's playground, picnic and rest area.	Southern tip of Boise Cascade property just west of pathway.	Built with volunteer labor in just five days in May 1994, this project is a source of great community pride and the epitome of what the Greenway is all about.
Resthaven Road -- Smith Property: Natural habitat, river access.	25-28 acres located south and west of Resthaven Rd between the Yakima River and DFW property around what used to be Resthaven Lake, which became part of the river channel due to 1990 flood.	Yakima Greenway Foundation should acquire privately owned land adjacent to DFW property around former Resthaven Lake. Best used as limited access area for fishing, educational purposes.
Hartford Property: Possible income-producing property if developed for commercial purposes. Possible equestrian trails or center.	East side of river, south of Hartford Road and Central Washington RR trestle. North of Terrace Hts Rd and WSDOT property. West of houses that line Roza Canal. About 65 acres.	Much of the property is owned by Yakima Greenway Foundation, with small, privately held parcels and a large parcel owned by WSDOT. Greenway property could be used as a match for state grant to acquire other property in Greenway corridor. Previous owner purchased property to use for gravel mining, but couldn't get the necessary permits. City of Yakima has expressed interest in the area for constructing ball fields.
Yakima Greenway Pathway: Multi-use pathway.	3-mile-long path on dike from Terrace Heights Drive to Harlan Landing in Selah Gap; named National Recreation Trail in 1992 by U.S. Dept of the Interior.	Addition of McGuire Playground has created parking/access problems. Need to seek additional parking and a way to handle pathway congestion between Sarg Hubbard Park and the playground.
Riverside Recreation Area		
Sarg Hubbard Park: Multi-use park and recreation grounds; reclamation of former city land fill.	West side of river just south of Terrace Heights Drive; about 28 acres.	City-owned land managed by Greenway Foundation; developed in 2 phases, dedicated in 1987 & 1990. Requires high level of maint. Bus service from downtown to park. Used as site for Greenway fund-and fun-raising events including Winter Walk, EAGLE Earth Day, Gap-to-Gap Relay, concert series, A Case of the Blues, and Great Yakima Duck Race festivals. Due to popularity of events and Greenway facilities, additional parking is needed. One possibility is City-owned land occupied by Superior Asphalt until the winter of 1995-96.

TABLE 5-4 (continued).
EXISTING AND PROPOSED YAKIMA GREENWAY FACILITIES

Facility Description	Location	Comment
Sarg Hubbard Landing: Access to Yak Rv for non-motorized boats.	West side river, south of Terrace Hts Dr, adjact to Sarg Hub Park.	This facility was completed in 1987.
Kiwanis Park (City of Yakima): Family picnic area and team sports facilities for recreational use.	West of I-82 on East Maple and Fair Avenue.	Although across I-82 from the Yakima Greenway corridor, this park is readily accessible via the Beach Street underpass and the proposed Conference of Governments trail plan that would link the Central Washington State Fairgrounds, and areas in between, to the Noel Pathway. This park is managed by the Yakima City Parks Department.
"Park Lake" Area: Non-motorized boating and water-related park uses, plus commercial development and recreational activities; e.g., open-air restaurant, boat rental, motel facilities, offices.	60-acre gravel pit south of Sarg Hubbard Park, west of river and pathway.	Central feature south of Sarg Hubbard park. Requires continued negotiation with property owner for possible future acquisition of lake area. Community task force led by Foundation is studying best use of entire area from standpoint of landowner, Central Pre-Mix, and community. Gravel mining permit DNR requires reclamation of pit for use as recreational area with 3:1 slopes above and below water level. Mining completed in 1996, and the pit is now full of water.
Yakima Area Arboretum: Regional arboretum.	West side of river south of "Park Lake" area and north of SR 24 adjacent to I-82; about 35 acres.	Managed by separate non-profit foundation, Yakima Area Arboretum. Land owned by City of Yakima.
Sherman Memorial Park: Park, picnic area, pathway connection.	West side of river north of SR 24, adjacent to Yakima Area Arboretum; about 6 acres.	This facility was dedicated in 1984; land owned by the City of Yakima and managed by the Yakima Greenway Foundation. In 1992 the "Shields Addition" (5 acres in the southwest corner of the park) was donated to the Arboretum. In 1994 the Westberg picnic shelter and additional parking were added. Park could be improved with plantings, especially along the Arboretum fence line.
Robertson Landing: Float access to river and recreation facilities.	West side of river north of SR 24, south of West Birchfield Road.	Floods often (boat ramp was washed away in 1990 and covered with gravel in 1995). Should be maintained as natural area for low maintenance. This facility was completed in 1987. In 1995 mining project was begun by the Yakima County diking improvement district. This three-phase project will result in salmon overwintering ponds, provide gravel to raise the dike on the east side of the river, and create a swimming pond and beach for Greenway users.
Footbridge Crossing: To provide foot / bicycle access between park areas on east & west sides of river.	Old Moxee bridge crossing at West Birchfield Road (now part of Robertson Landing).	WSDOT has plans to include dedicated ped/bicycle access as an element of SR 24 bridge reconfig over the river. Date of constr is unknown due to funding constraints. Development of the footbridge would become a lower priority after this safe river crossing connects the west-and east-side pathways and parks.

TABLE 5-4 (continued).

EXISTING AND PROPOSED YAKIMA GREENWAY FACILITIES		
Facility Description	Location	Comment
Yakima Sportsman State Park: Washington State park with extensive facilities for overnight camping, day use picnic and rec. activities, and natural areas.	East side of river, Terrace Heights Drive to West Birchfield Road. Large natural island in river is part of park.	Camping facilities and natural areas should be expanded. State Parks Department has been purchasing property north of park up to Terrace Heights Drive so they can control land from dike to work with Yakima Greenway Foundation to put path on the dike between SR 24 and Terrace Heights Drive.
KOA Campground: Commercial overnight RV Park.	East side of river adjacent to SR24.	A compatible use of land within the Greenway.
Greenway Pathway: A multi-use, paved pathway for recreational use would provide a path loop in central section of Greenway.	East and west of river on dike system between Terrace Heights Drive and Nob Hill Boulevard (continuation of Noel Pathway segment).	The 1.6-mile Noel Pathway from the Terrace Heights Drive underpass to Sherman Memorial Park completed in 1984. Linking Noel and Jewett Pathways at Robertson Landing requires obtaining easement on dike from two private landowners (one willing, one not).
Nob Hill Auto Wrecking and Hicks Property: Need easements from private landowners for dike path.	North of Robertson Landing (Birchfield Rd dead-end) and east Sherman Park/ Arboretum area.	Hazardous waste liability laws will probably keep the Foundation from acquiring this property due to high cost of reclamation.
Riverside Conservation Area		
Jewett Pathway: Multi-use pathway for recreational use, connecting with the Noel Pathway.	West side of river from Robertson Landing to Valley Mall Boulevard	This 1.8-mile section of path was built in 1993 and dedicated in July. It is the first pathway built by the Greenway that is not entirely on top of dike, as it leaves the City-owned dike just south of the spray fields and travels across WSDOT and private property. Trees planted in spring 1995 as an Eagle Scout project on City property to screen the pathway from the spray fields (both visually and to keep spray off the pathway). Just west of the path at the south end of the City property is a settling pond that will be the site of a bird viewing station built in partnership with the City and the Audubon Society.
Greenway Island Group Camp: Primitive youth day and overnight camp, environmental education center.	Large island in river just off the Jewett Pathway just north of the Edler property. Northern tip owned by the City of Yakima, southern tip owned by Central Pre-Mix, bal owned by WSDOT.	WSDOT has given Greenway permission to begin studying the area for this use. Greenway would manage reservations, other organizations would provide insurance, maintenance, and security. Area will be studied for one or two years beginning summer 1995 before decision is made as to the ultimate use of island.
Riverside Group Camp: Ideal regional youth group camp and retreat upon termination of mining. Owner plans to make it a private campground.	East side of river south of SR 24; privately owned, currently being mined by Central Pre-Mix. Includes several man-made ponds.	A youth camping retreat facility is needed closer to Yakima. This would be a good opportunity to use volunteer labor of youth and church groups and civic organizations. Private campground would also be a compatible use. (If the Greenway Island Camp works out, other plans could be made for this area.) Action contingent on landowner's interests and plans.

TABLE 5-4 (continued).
EXISTING AND PROPOSED YAKIMA GREENWAY FACILITIES

Facility Description	Location	Comment
Northwest Section: Commercial development and wastewater treatment plant.	West side of river (west of dike and Jewett Pathway), south of SR 24 to southern edge of City spray field.	Encourage future commercial development to adhere to Greenway design standards. Existing commercial development and wastewater treatment plant should be screened from I-82 and Jewett Pathway with additional plantings.
Valley Mall Interchange Commercial Cluster: To meet recreation- and tourist-oriented commercial needs and to provide convenient public access to southern terminus of the Jewett Pathway.	East side of I-82 at Valley Mall Interchange; currently privately owned.	Property is situated within the City of Union Gap. Landowner is interested in allowing the area to be mined (5-year project); resulting ponds would become salmon overwintering sites and possibly swimming areas. Agreement between landowner (Edler), Columbia Ready Mix, and Foundation states that ponds and adjacent areas will be turned over to Greenway for use as park and open-space. Owner is interested in some commercial development east of Spring Creek and west of the ponds; acreage and type of development to be determined. Agreement states that proper buffer will be provided between Spring Creek and ponds, and development will adhere to Greenway design standards.
Union Gap Conservation Area		
Natural Area: A natural buffer between any development and the river to protect the riparian habitat.	East side of river to Riverside Road and its extension south to Thorp Road within the floodplain, excluding existing residential development.	Little development has taken place in the area, and currently grazing has the only significant impact. This land needs more protection than it currently has. It is not covered by Greenway Overlay District provisions of the Yakima Urban Area Zoning Ordinance because it is outside the Urban Area boundaries. It is desirable for the Foundation to acquire this land (or conservation easements on it) for long-term management as a wildlife refuge.
Greenway Pathway: To provide trail connections to lower Yakima Valley.	East and west sides of river at Union Gap.	Providing access to the Parker/Buena area will require construction of a river crossing. An alternative is to cantilever a bike path on the I-82 bridge. WSDOT, Yakima County, and the City of Union Gap should be encouraged to include bike/pedestrian pathways throughout the area in their transportation master plans.
Fulbright Park/Youth Activities Park Trail Link: To link west side river trails to Union Gap's Fulbright Park and the county's Youth Activities Park.	South end of Greenway near site of former Union Gap Sewage Treatment Plant.	
<i>SOURCE: Foundation 1995</i>		

The Board of Yakima County Commissioners continued to define land use policy within the Greenway corridor by adopting the Yakima Urban Area Comprehensive Plan in 1981. This plan included a policy that the cities of Yakima and Union Gap and Yakima County would coordinate the acquisition and development of the Greenway. In 1986, the Urban Area Zoning Ordinance was adopted to implement this policy.

The Urban Area Zoning Ordinance includes a Greenway Overlay District to coordinate zoning provisions with policies adopted in the Greenway Master Plan. Provisions of the Greenway Overlay District require a higher level of administrative review and approval to ensure protection of the Greenway. The Foundation is also seeking adoption by local municipalities of design standards outlined in the Greenway master plan. These standards include descriptions of unsuitable and compatible uses; general, site, building, landscaping, and parking design standards; and improvements to be provided by the developer.

Vision for the Future

The Foundation's vision includes additional development alternatives within the Yakima River corridor. The vision does not dictate land use, but suggests possibilities for Yakima Valley residents to consider. The Foundation's suggested enhancements include the following (Foundation 1995):

- Establish a scenic parkway on the eastern border of the Greenway corridor connecting Yakima Valley Highway and the scenic Yakima River Canyon Highway
- Locate enterprises related to tourism and recreation between the Greenway and the parkway with industrial parks and residential communities located along the eastern edge
- Integrate attributes of the Greenway into urban design and planning decisions as development occurs between downtown Yakima and the freeway
- Establish circulation routes between downtown Yakima and the Greenway
- Designate 66th Avenue (or 72nd Avenue) and Ahtanum Road (or Ahtanum Creek) as greenbelt areas with provisions for paths and trails to provide a green border and circulation route around the Upper Valley
- Extend the Greenway corridor to encompass Plath Pathway and the Naches River to connect the present pathway to Cowiche Canyon Trail
- Extend the Greenway corridor along the Yakima River north from Selah to the Yakima River Canyon.

Yakima River Watershed Council

The Yakima River Watershed Council is a non-profit organization formed in March 1994 in response to deteriorating water quality, water supply, and fisheries and wildlife resources in the Yakima basin. The Council represents a community effort to address a wide spectrum of water-related issues in the Yakima River Basin. The Council's mission is to reach consensus among stakeholders to plan for sustainable development in the basin.

As of January 1, 1995, the Council had approximately 1,000 members from private and public corporations, advocacy groups, the Yakama Indian Nation, agriculture, environmental groups, business and financial institutions, local government, and electric utilities. The Council is governed by a 50-member board and directed by an executive committee, and has eight working committees (water quantity, water quality, off-stream storage, legislative and legal, water system supply management, conservation, water transfer and marketing, and finance). Working committees are identifying basin-wide issues and will develop potential solutions.

The Council has offices in the City of Yakima and presently has an administrative staff of five. The Council is scheduled to produce a Yakima River Watershed Management Plan by December 1996.

Yakima River Basin Water Enhancement Project

As of October 31, 1994, Title XII of Public Law 108 authorizes the Yakima River Basin Water Enhancement Project. This project, developed by the Secretary of the Interior, with the State of Washington, the Yakama Indian Nation, Yakima River Basin irrigators, and other interested parties, will evaluate and implement measures to improve the availability of water supplies for irrigation and protect and enhance fish and wildlife resources and wetlands while improving the water quality in the Yakima basin. The Bureau of Reclamation will operate and manage the program. Walt Fife, project manager in the Eastern Regional office, will direct the effort.

The primary project element is a basin conservation program to be completed in four phases within two and a half years from the date of enactment. The phases are as follows:

- Development of water conservation plan options
- Investigation of the feasibility of specific water conservation measures
- Implementation of conservation measures
- Monitoring and evaluation.

The project also includes Toppenish Creek corridor enhancement, a Yakama Indian irrigation demonstration project, modifications and improvements to Lake Cle Elum, Taneum Creek enhancement study, Kachess Dam modifications, modifications to Chandler pumping plant and power plant operations at Prosser Dam, and a comprehensive basin operating plan.

While the project is directed primarily toward water conservation, elements of it may affect flooding. For example, modifying the capacity and operation of upper basin storage reservoirs will affect flood control capabilities. Specifically, the proposed enlargement of Lake Cle Elum and diversion of Cabin Creek and Silver Creek to Kachess Dam may reduce peak flood flows.

In addition, acquisition of floodplain habitat and water rights will increase or maintain floodplain storage, and directly reduce flood hazard by limiting development on these lands.

Yakima Subbasin Fish and Wildlife Planning Board (YSPB)

The Yakima Subbasin Fish and Wildlife Planning Board (YSPB) was created in 2002, in response to requests from the Northwest Power and Conservation Council and the Washington Governor's Salmon Recovery Office. The Board is composed of 17 general purpose governments within the subbasin, including: The Yakama Nation, Yakima County, Benton County, City of Yakima, City of Kennewick, City of Sunnyside, City of Prosser, City of Granger, City of Selah, City of Benton City, City of Richland, City of West Richland, City of Roslyn, City of Ellensburg, City of Union Gap and WDFW in an advisory capacity. The YSPB was created with the goal of preparation of the Yakima Subbasin Plan, which acts as a guidance document for the expenditure of BPA mitigation funds within the Yakima Subbasin, and the Yakima Basin Salmon Recovery Plan.

Yakima Basin Salmon Recovery Board Lead Entity

Intensive salmonid recovery efforts were initiated by the governor and legislature of Washington State following the listing of several Columbia River and Puget Sound stocks under the Endangered Species Act. The Salmon Recovery Act created the Salmon Recovery Funding Board (SRFB) to guide the spending of state funds targeted for salmon recovery projects.

In the Yakima Subbasin, individuals or agencies desiring project funding through the SRFB must submit applications through the Yakima Basin Salmon Recovery Board (YBSRB) Lead Entity (LE), the City of Selah. The YBSRB Lead Entity includes representation from the jurisdictions of Benton, Yakima, and Kittitas counties, the Yakama Nation, and many city jurisdictions within the watershed. It is the role of each watershed's Lead Entity to prioritize projects that best represent the statewide goals and guidance for salmon recovery (JNRC 2001), and the unique characteristics of the local watershed and salmonid populations within it. Projects considered by the YBSRB Lead Entity can be proposed from the entire Yakima watershed and its tributaries from the confluence with the Columbia River upstream to its headwaters. To date, the YBSRB has been successful in funding 28 projects for a total project cost of \$9.6 million in the Yakima Subbasin. Funding from the SRFB was \$4.4 million, which was leveraged with \$5.2 million additional funding, for a total of \$9.6 million. The projects included two studies, 19 restoration projects and seven acquisitions.

Yakima Basin Fish & Wildlife Recovery Board

In 2005, the Yakima Basin Salmon Recovery Board Lead Entity was combined with the Yakima Subbasin Fish and Wildlife Planning Board to create one entity, the Yakima Basin Fish & Wildlife Recovery Board. The Yakima Basin Fish & Wildlife Recovery Board is now acting as the Regional Recovery Organization, assisting the Governor's Salmon Recovery Office in implementing the Washington State Salmon Recovery Act (RCW 70.85) and as a local organization to focus recovery of endangered species for the Yakima River Basin.