

5.5. Element 5: Riparian Assessment.

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The Jackson Creek watershed riparian and wetlands assessment was prepared from aerial photos and 7.5 quad maps obtained from BLM, and verified by a field survey on July 6th and 7th, 2000. The team consisted of a biologist, and geologist, and was assisted by the City of Jacksonville Forester Mr. Paul Kangas.

5.5.1. Methodology For Riparian Areas.

The waterway was followed until either 1,000 feet of streambed was covered, or changes were found in any of the following characteristics:

- ◆ Vegetation
- ◆ Size
- ◆ Channel habitat type
- ◆ Ecoregion
- ◆ Subwatershed region

The end of each Riparian Condition Unit (RCU) was assigned a number, ranging from 1 through 116 (58 sections with the left and right banks facing downstream numbered as separate units). Numbers N1 through N16 were used for Norling Gulch Creek (8 sections (left and right banks numbered as separate units). Numbers C1 through C20 (10 sections) were used for Cantrall Gulch Creek; numbers S1 through S16 (8 sections) were used for the South Fork of Jackson Creek; and numbers W1 through W38 (19 sections) were used for Walker Creek (detailed technical information and data are provided in the Appendix).

Glossary for this section:

Riparian area: The area adjacent to the stream channel that interacts and is dependent on the stream for biological integrity.

Riparian Condition Unit (RCU): A portion of the riparian area in which riparian vegetation type, size, and density remain approximately the same.

Riparian Recruitment Situation: Groups of RCUs that have similar characteristics and that may be treated similarly for the purposes of restoration and/or enhancement.

The Oregon stream ordering system was used to designate stream order:

Small	<2 cfs
Medium	2-10 cfs
Large	>10 cfs

From the aerial photos, the shade category for each RCU was determined using the following criteria:

<u>Indicator</u>	<u>Shade</u>	<u>Code</u>
Stream surface not visible, slightly visible, or visible in patches	>70%	H
Stream surface visible, but banks are not visible	40-70%	M
Stream surface visible; banks visible or visible at times	<40%	L

5.5.2. Riparian Recruitment Situation Description.

Following the riparian condition unit evaluation, it is important to decide if the current riparian conditions provide adequate or inadequate riparian recruitment potential. This requires a comparison of current conditions to the potential vegetation descriptions for the ecoregion. If current conditions are as good or better than the potential conditions for the ecoregion, (i.e., conifers better than hardwoods; large trees better than medium trees; and dense stands better than sparse stands) then recruitment potential is considered to be adequate. If current conditions are not as good as potential ecoregion conditions then recruitment is inadequate (See OWAM pp.v-i i to v-i). Each Riparian condition unit is then evaluated to determine its riparian recruitment situation.

The watershed was divided into thirds topographically and each riparian/wetland was located as to being in the highest, middle, or lowest third of the watershed. Each wetland was given a modifier to classify its restoration or enhancement potential, with ratings of high, good and low. The following types of vegetation zones were identified in the Jackson Creek watershed (see Plant Communities Assessment Element #4).

UPLAND FOREST ZONE Bforested, containing diverse resources and habitats, and separated from urban influence

FOREST/URBAN INTERFACE ZONE Blargely forested, but has intermingled residences throughout and/or the potential for development

URBAN/AGRICULTURAL ZONE Bcontains cities and suburb communities, and intensive agri/forestry operations

The riparian recruitment situation within the upland forest zone is described as *adequate*, where no enhancement is needed. The land use and recruitment situation associated with the forest/urban interface zone is residential *development*, with narrow buffers between homes and the creek, and forestry stands consisting of areas of hardwoods. The urban/agricultural zone consists of areas where buffers are absent, lawns, or narrow sections between agricultural land and the creek. The recruitment situation within this zone can be described as either *development* or *agriculture*.

5.5.2.1. Jackson Creek Vegetation Zones.

The upland forest vegetation zone for the main stem of Jackson Creek contains Riparian Condition Units (RCU) 1 through 30, running from the headwaters to Cantrall Gulch C approximately 2.5 miles in length. The riparian recruitment zone, spanning both the left and right creek banks, is approximately 20 to 25 feet in width, with primary tree species including Pacific Madrone, white alder, big leaf maple, and Douglas-fir. Shrubs present include Ocean Spray, poisonoak, hazel, dogwood, mock orange, and ceanothus. From the headwaters, the creek initially runs through a moderately steep narrow valley, and then into a moderate gradient area where the channel becomes moderately confined. The creek bed consists of sand, gravel, and cobble, with no indication of erosion problems (fines). Shading is high. The riparian recruitment situation for this section is described as *adequate*.

RCU's 31 through 38 have high recreational use, with frequent off-highway vehicle traffic in this area. The creek flows into a small reservoir, which is approximately 0.25 miles in length, and then exits in various manners below the earthen dam. Overflow and leakage from the dam supplies a small amount of stream flow, which could be enhanced into a wetland area, either as a nature-park or educational center. The recruitment zone continues to span 20 to 25 feet, with primary tree species including white alder, big leaf maple, cottonwood, Douglas-fir, and shrubs similar to those found in the upland forest zone. Pacific Madrone is less prevalent. The channel flows along a low gradient, and continues to be moderately confined. The riparian recruitment situation for this section is described as *development*.

RCU's 39 through 62 make the transition from forest to urban area (forest/urban interface vegetation zone) as the creek enters and flows through Jacksonville. The recruitment zone reduces to 10 to 15 feet in width, with primary tree species including cottonwood, big leaf maple, locust, and Oregon ash. As the creek runs through Jacksonville, blackberry bushes begin to dominate the creek banks, with hardwoods becoming more and more dispersed, usually found within lawn areas. The channel flows along a low gradient and within a medium floodplain. There are several irrigation diversions/returns causing the creek flow to vary dramatically, and the creek bed contains more sediment from irrigation return flows. The riparian recruitment situation for this section is described as *development*.

RCU's 63 through 88 make the transition from urban to agricultural area (urban/ag interface vegetation zone) as the creek leaves Jacksonville, travels through suburbs, and into agricultural land. The first mile (RCU's 63 to 76) has a recruitment zone 10 to 15 feet in width, and consisting primarily of blackberry bushes. At this point, the creek turns away from the roadway and the recruitment zone increases to 20 to 25 feet in width, with primary tree species including cottonwood, big leaf maple, locust, and Oregon ash. This segment is also approximately 1 mile in length (RCU's 77-88). The creek then turns back to parallel the roadway and the recruitment zone decreases to 10 to 15 feet in width, dominated by blackberry bushes with a few widely dispersed hardwoods. The riparian recruitment situation for this section is described as *agriculture*.

RCU's 89 through 116 make the transition from agricultural to urban area (ag/urban interface vegetation zone) as the creek enters and flows through Central Point. The recruitment zone

remains at 10 to 15 feet in width, and buffers vary, dominated by dense blackberry bushes with a few widely dispersed hardwoods including cottonwood, big leaf maple, locust, and Oregon ash. There are several irrigation diversions/returns causing the creek flow to vary dramatically, and the creek bed contains higher sediment loads. The riparian recruitment situation for this section is described as *development*.

The remaining section of Jackson Creek leaves Central Point, travels through suburbs and an agricultural area, and flows into Bear Creek. The recruitment zone is 10 to 15 feet in width, dominated by dense blackberry bushes. The riparian recruitment situation for this section is described as *agriculture*.

5.5.2.2. Norling Gulch Creek Vegetation Zone. The entire two miles of Norling Gulch Creek fall into the upland forest vegetation zone. The riparian recruitment area, spanning both the left and right creek banks, is approximately 20 to 25 feet in width, with primary tree species including Douglas-fir, Pacific Madrone, big leaf maple, and white alder. Shrubs present include hazel, dogwood, mock orange, poisonoak, and ceanothus. From the headwaters, the creek initially runs through a moderately steep narrow valley, and then into a moderate gradient area where the channel becomes moderately confined. The creek bed consists of sand, gravel, and cobble, with no indication of erosion problems (fines). Shading is high. The riparian recruitment situation for this Jackson Creek tributary is described as *adequate*.

Note: A 30" culvert is present where the road forks just upstream from the point at which Norling Gulch Creek joins Jackson Creek. It is questionable if this culvert is large enough to withstand flood conditions.

5.5.2.3. Cantrall Gulch Creek Vegetation Zone. The entire two miles of Cantrall Gulch Creek fall into the upland forest vegetation zone. The riparian recruitment area is approximately 20 to 25 feet in width, with primary tree species including Pacific Madrone, Douglas-fir, ponderosa pine, and cottonwood. Shrubs present include hazel, poisonoak, ceanothus, and manzanita. From the headwaters, the creek initially runs through a moderately steep narrow valley, and then into a moderate gradient area where the channel becomes moderately confined. The creek bed consists of sand, gravel, and cobble, with only little evidence of fines. Shading is high. The Motorcycle Riders Association owns 180 acres within this area; therefore, a large amount of recreational activity occurs along the main road as well as along side trails. Erosion problems do exist along some of these trails (thus, there are fines in some creek bed locations). There is evidence of past logging activities (Boise Cascade Timber Co.), including a logging road and several slip trails that are currently used by OHV's. A rock quarry (previous granite removal site) exists near where Cantrall Gulch Creek joins Jackson Creek. This quarry is currently used as a shooting range, and hiking area. Rip-rap has been installed around culvert areas, and the areas could be renovated by importing new soil and building vegetated terraces. Despite the issues that do exist for Cantrall Gulch Creek, the riparian recruitment situation for this creek is described as *adequate*.

5.5.2.4. South Fork of Jackson Creek Vegetation Zone. The entire 2 miles of the South Fork of Jackson Creek fall into the forest/urban interface vegetation zone. The first 1½ miles of creek (RCU's S1 through S12) contain a riparian recruitment zone that is 20 to 25 feet in width, with

primary tree species including ponderosa pine, Douglas-fir, cottonwood, big leaf maple, Pacific Madrone, and willow. Shrubs present include ceanothus, hazel, and poisonoak. The creek initially flows through a moderately steep narrow valley, and then into a moderate gradient area where the channel becomes moderately confined. The creek bed consists of sand, gravel, and cobble, with only little evidence of fines. Shading is high. The riparian recruitment situation for this stretch of the creek is described as *adequate*.

The last ½ mile of creek (RCU's S13 through S16) contains a recruitment zone that is reduced to 10 to 15 feet in width, but with similar vegetation present as found in the upper 1½ miles, and flowing within the same channel habitat type. The density of residential housing increases in the last section of creek, with an increase in roadways, tree damage, and forest fragmentation. The riparian recruitment situation for this creek segment is described as *development*.

5.5.2.5. Walker Creek Vegetation Zones. The first 2 miles of Walker Creek (RCU's W1 through W18) fall into the upland forest vegetation zone. The riparian recruitment zone measures 20 to 25 feet in width, with primary tree species including cottonwood, white alder, big leaf maple, and Pacific Madrone. Shrubs present include hazel, dogwood, willow, poisonoak, ceanothus, blackberry, and mock orange. The creek initially flows through a moderately steep narrow valley, and then into a moderate gradient area where the channel becomes moderately confined. The creek bed consists of sand, gravel, and cobble, with only little evidence of fines. Shading is high. Rock quarries/gravel pits exist along this creek section, and there is evidence of high use along the road in this area. A potential wetland enhancement area is located near the headwaters. Despite the issues that exist, the riparian recruitment situation for this stretch is described as *adequate*.

The next 1½ miles (RCU's W19 through W30) fall into the forest/urban interface vegetation zone. The recruitment zone slowly reduces to 10 to 15 feet in width, and tree species give way to shrubbery, with blackberry bushes dominating. Pines give way to widely dispersed hardwoods. The channel flows along a low gradient and within a medium floodplain. Residences density increases, and buffers vary. The recruitment situation for this section of creek is described as *development*.

The remaining mile of Walker Creek before it joins Jackson Creek (RCU's W31 through W38) falls into the urban/ag interface vegetation zone. The recruitment zone remains at 10 to 15 feet in width, and is dominated by dense blackberry bushes. Residences give way to agricultural land, and buffer areas vary. Several irrigation diversions/returns cause the creek flow to vary dramatically. A possible wetland enhancement project exists at Hanley Farms, an historical farm in that area. The recruitment situation for this segment of creek is described as *agriculture*.

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