

# **Summary of Consultation WRIA 57 and WRIA 54 Spokane River IFIM Transect Selection**

## **Introduction**

EES Consulting (EESC) has been contracted by TetraTech/KCM and Spokane County to conduct an instream flow study on the free flowing portion of the Spokane River between Nine Mile reservoir (RM ) and the Monroe Street bridge (RM ). The purpose of the study is to assess fish habitat within this segment of river using the Instream Flow Incremental Method (IFIM) developed by the US Fish and Wildlife Service.

On March 29, 2006, representatives from the Washington Department of Fish and Wildlife, the Washington Department of Ecology, the WRIA 54 Instream Flow Technical Team (IFTT) and EESC met at the TetraTech/KCM Spokane Office. The attendees included Tim Vore (Avista), Rob Lindsay (Spokane County), Mark Wachtel and Hal Beecher (Washington State Department of Fish and Wildlife), and Pete Rittmueller (EESC). The plan for viewing the river and reviewing the transects was discussed and the participants left for the field portion of the visit.

## **WRIA 57**

Two transects were proposed in WRIA 57. The transects are located approximately 800-feet and 500-feet, respectively, downstream of the Spokane gage. Both transects were reviewed and approved by the agency representatives. Given that rainbow spawning habitat had been assessed in an earlier instream flow study, two transects were sufficient to characterize the habitat in this reach. The group noted that although a small percentage of the habitat was riffles, they could not be safely measured due to the predominance of swift, shallow water. WRIA 57 transect locations are shown in Figure 1.

The group assembled on the Centennial Trail Bridge and agreed to use photographs to assess the effect of different flows on the riffles. All parties agreed that the photo comparisons of the riffles would not take the place of the IFIM results, but would be used as additional information to verify that riffle habitat was not being severely impacted at selected flows when IFIM results showed little impacts. It was agreed that Spokane County would take photos of riffles upstream and downstream of the foot bridge, following protocol set out by EESC. Potential photo point locations were marked on the hand rail of the bridge.

## **WRIA 54**

The group traveled by car downstream of the Spokane Rifle Club facility. John Covert from the Department of Ecology joined the group at this location.

In the WRIA 54 section of the Spokane River, five transects were selected in the area above the back water from the Nine Mile reservoir. Transects were selected in this area of the river for 3 main reasons. First, all of the major habitat types that can be measured in the WRIA 54 section of the Spokane River are found in this area. Second, access to a boat launch and the ability to access the transects without running the boat through dangerous rapids rarely occurs upstream of this area. Finally, substantial ground water (at least 350 cfs) enters the WRIA 54 segment of the Spokane River and this is the furthest downstream free flowing segment of the where the effects of the ground water on habitat can be measured.

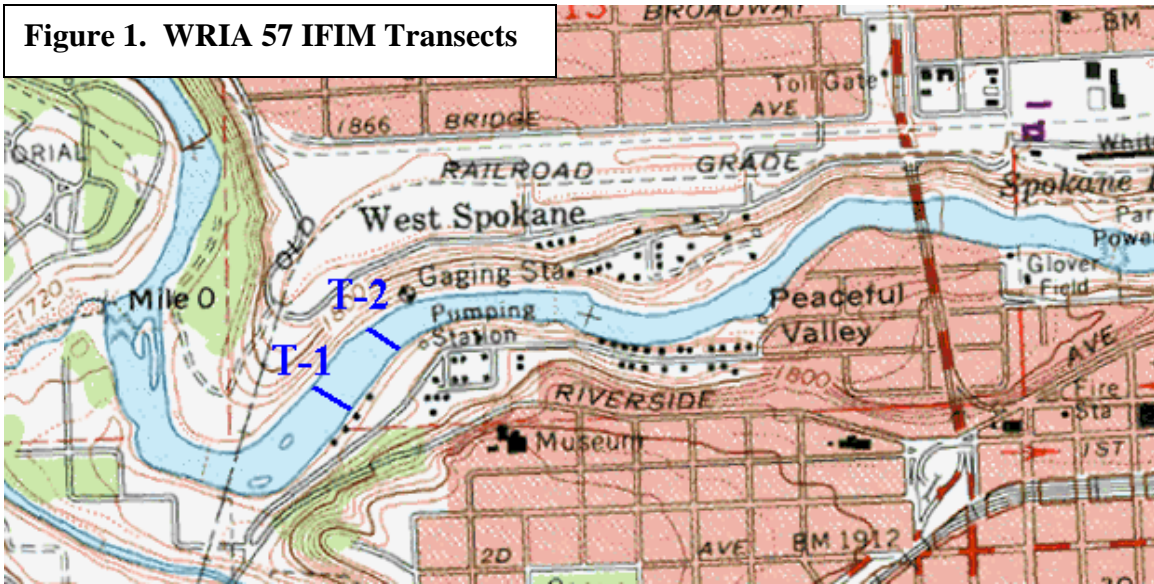
Transects 1 and 2 are located just downstream of Rifle Club rapids. Tim Vore concurred that the transects were located upstream of any backwater from Nine Mile Reservoir. Transects 3, 4, and 5 are located in the vicinity of the Spokane Rifle Club facility, upstream of transects 1 and 2. WRIA 54 transect locations are shown in Figure 2. Habitat types for all transects are described in Table 1.

To assess the riffle habitat 2 photo points were established in WRIA 54. The first photo point is located on Petit Drive (top of Doomsday Hill) to view the riffle associated with the island complex near the T.J. Meenach Bridge. The second photo point is located on Aubrey Parkway, looking downstream to Rifle Club rapids. The photographs of the riffles in both WRIA 54 and 57 will be used to document changes in riffle habitat with changing flow.

The field group returned to the TetraTech/KCM office and met with additional IFTT members. Attendees of the office meeting included Charlie Peterson (Spokane County Conservation District), Stan Miller (Citizen at Large), Bea Lackaff (Land Owner), Lloyd Brewer (City of Spokane). The transect locations and the basis for their placement were explained to the IFTT members.

There was general agreement on the transect locations and the basis for their placement. Lloyd Brewer asked that temperature data also be collected along the transects. After a discussion it was agreed to collect temperature data when the flow measurements are collected.

**Figure 1. WRIA 57 IFIM Transects**



**Table 1. WRIA 57/54 IFIM TRANSECT DESCRIPTION**

**WRIA 57**

**Transect 1** - Run, shallower, wider and faster than Transect 2. 500' – 800' DS from USGS gage. Large rock near mid channel. Can move to 80' upstream if too shallow.

**Transect 2** – Smooth glide ~ 300' DS from USGS cableway. Laminar Flow. Higher velocities on RB.

**WRIA 54**

**Transect 1** – Mid Width Glide. 300' DS of riffle. DS of Rifle Club.

**Transect 2** – Pool/Glide Complex ~200' US of Tran 1.

**Transect 3** – Med Fast Run, faster water all across transect

**Transect 4** – Medium Run. Slightly faster on LB.

**Transect 5** - Glide/ Run transition. Weight ~50/50 each habitat type. Upper ¼ of Rifle Club property.

Figure 2. WRIA 54 IFIM Transects

