

**LITTLE JUNIATA RIVER
BLAIR AND HUNTINGDON COUNTIES**

**WATER QUALITY STANDARDS REVIEW
STREAM REDESIGNATION EVALUATION SUMMARY REPORT**

**SEGMENT: MAIN STEM, FROM LOGAN SPRING RUN
TO SPRUCE CREEK
DRAINAGE LIST: N
STREAM CODE: 15664**

**WATER QUALITY MONITORING AND ASSESSMENT SECTION (DSB)
DIVISION OF WATER QUALITY ASSESSMENT AND STANDARDS
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**JANUARY 2001
REVISED OCTOBER 2002**

**LITTLE JUNIATA RIVER
BLAIR AND HUNTINGDON COUNTIES
DRAINAGE LIST N**

BACKGROUND

Little Juniata River is a tributary of the Juniata River in the Susquehanna River watershed. The section of the stream being evaluated in this report is located in Tyrone and Snyder Townships, Blair County, and Warriors Mark and Spruce Creek Townships, Huntingdon County. It runs from the confluence of Logan Spring Run at river mile 14.14 to the confluence of Spruce Creek at river mile 6.57. This 7.6 mile section of the Little Juniata River is currently designated Trout Stocking (TSF). The Pennsylvania Fish and Boat Commission (PFBC) currently has a trout stocking program on this segment of the river. They stock fingerling trout in the late summer or fall every year. In response to a request from staff in the South Central Regional Office, this section of the Little Juniata River was evaluated to determine the proper use designation. This evaluation was based on a field survey conducted on August 29, 2000.

FINDINGS

AQUATIC BIOTA: Fish were collected at 4 stations during the August 2000 survey (Figure 1 and Table 1). An assessment of the instream and riparian zone habitat parameters was also made (Table 2). The two upstream stations (1LJR and 2LJR) had habitat scores in the Optimal range while the downstream stations (3LJR and 4LJR) were in the Suboptimal range. This degradation in habitat quality was due to a variety of factors including a decrease in epifaunal substrate and an increased amount of embeddedness. A total of 15 species of fish were collected during this survey (Table 3). Brown trout were collected at all four stations, but the trout from Stations 1LJR and 2LJR probably resulted from the stocked fingerlings from previous years while the presence of young of the year at Stations 3LJR and 4LJR confirmed natural reproduction at these locations. While trout reproduction could not be confirmed at the two upstream stations, the presence of a healthy trout population during the summer months indicates that instream conditions support the maintenance of cold-water fish species. Typically warm water species such as river chub and smallmouth bass were more common at the two upstream stations.

No special conditions were found during the survey that would qualify this area of the Little Juniata River as a "surface water of exceptional ecological significance" or any other attribute listed in §93.4b.

PUBLIC RESPONSE AND PARTICIPATION SUMMARY

The Department provided public notice of this redesignation evaluation and requested any technical data from the general public through publication in the Pennsylvania Bulletin on April 22, 2000 (30 Pa.B 2071). A similar notice was also published in the Altoona Mirror on April

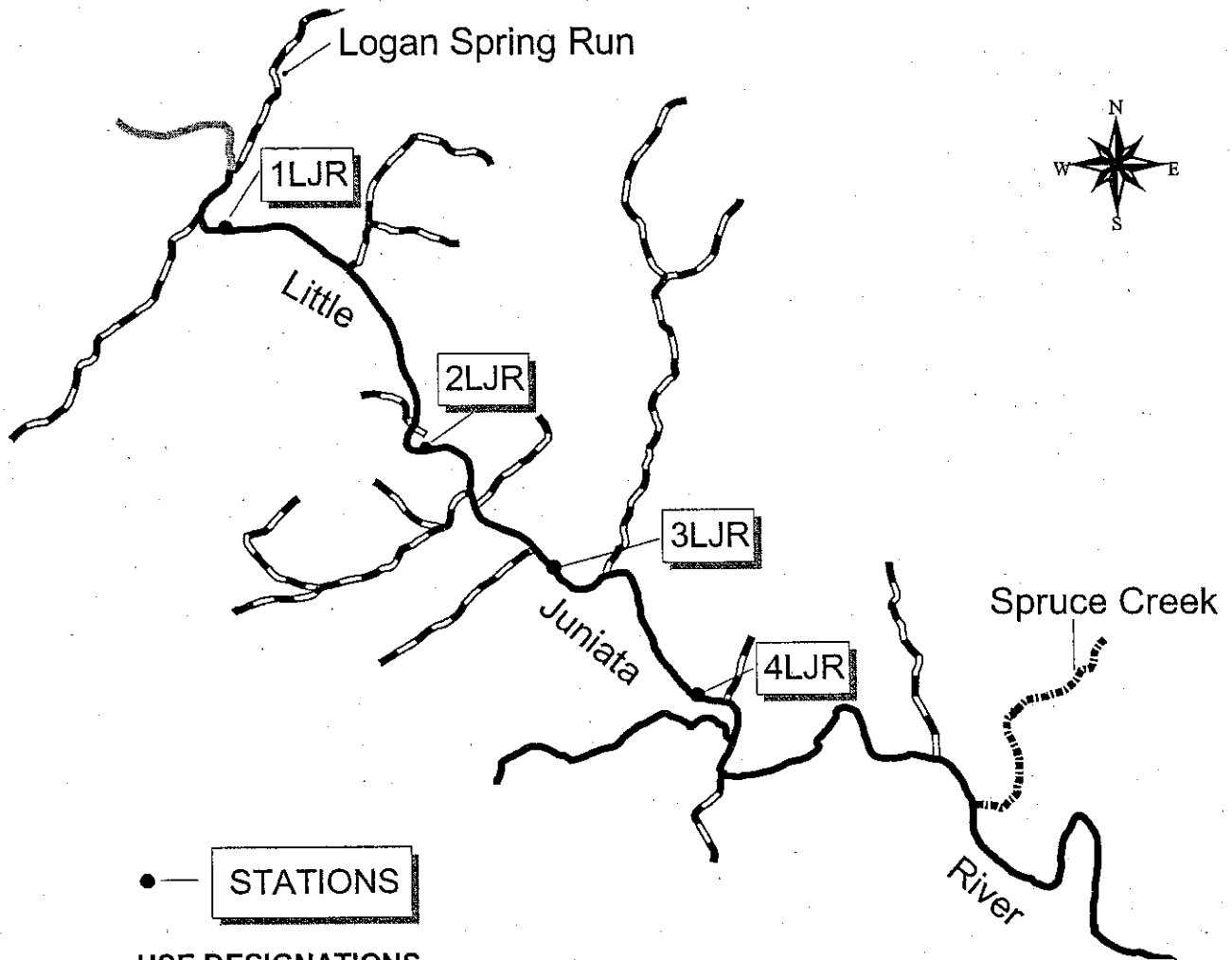
21, 2000. In addition, Antis, Snyder, Tyrone and Spruce Creek Townships were all notified of the evaluation in a letter dated April 19, 2000. The Blair County Planning Commission and the Huntingdon County Planning and Development Department were also notified at the same time. No data on water chemistry, instream habitat, or the aquatic community were received in response to these notifications.

A draft of this report was submitted to the above stakeholders, along with a request for comments, on September 20, 2002. No comments were received in response to this request.

RECOMMENDATIONS

Based on applicable regulatory definitions, the Department recommends that the designated use of the Little Juniata River main stem from the confluence of Logan Spring Run at RMI 14.14 to the confluence of Spruce Creek (15674) at RMI 6.57 be changed from the current Trout Stocking (TSF) to Cold Water Fishes (CWF). This recommendation is based on the propagation and/or maintenance of brown trout and other cold-water fish species (e.g. sculpin). This change affects 7.6 stream miles.

FIGURE 1. LITTLE JUNIATA RIVER BLAIR AND HUNTINGDON COUNTIES



● — STATIONS

USE DESIGNATIONS
HQ-CWF
CWF
TSF
WWF

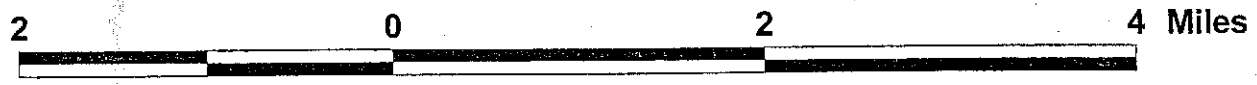


TABLE 1
STATION LOCATIONS
LITTLE JUNIATA RIVER
BLAIR AND HUNTINGDON COUNTIES

| STATION | LOCATION |
|----------------|---|
| 1LJR | Little Juniata River approximately 500 meters downstream from the SR 1014 bridge. Snyder Township, Blair County Lat: 40 39 25 Long: 78 13 05 RMI: 13.7 |
| 2LJR | Little Juniata River approximately 20 meters upstream from the RR bridge (#9) located 0.8 mile upstream from the T 506 bridge. Warriors Mark Township, Huntingdon County Lat: 40 38 20 Long: 78 11 41 RMI: 11.6 |
| 3LJR | Little Juniata River approximately 350 meters downstream from the T 506 bridge. Tyrone Township, Blair County Lat: 40 37 46 Long: 78 10 59 RMI: 10.6 |
| 4LJR | Little Juniata River approximately 350 meters downstream from the SR 1013 bridge. Spruce Creek Township, Huntingdon County Lat: 40 37 03 Long: 78 09 54 RMI: 9.1 |

**TABLE 2
HABITAT ASSESSMENT SUMMARY
LITTLE JUNIATA RIVER
BLAIR AND HUNTINGDON COUNTIES
AUGUST 29, 2000**

| HABITAT PARAMETER | STATIONS ¹ | | | |
|---------------------------------------|-----------------------|------|------|------|
| | 1LJR | 2LJR | 3LJR | 4LJR |
| 1. instream cover | 18 | 17 | 12 | 17 |
| 2. epifaunal substrate | 17 | 13 | 10 | 15 |
| 3. embeddedness | 16 | 14 | 12 | 12 |
| 4. velocity/depth | 16 | 16 | 16 | 17 |
| 5. channel alterations | 15 | 17 | 17 | 14 |
| 6. sediment deposition | 16 | 17 | 16 | 17 |
| 7. riffle frequency | 16 | 12 | 14 | 15 |
| 8. channel flow status | 18 | 18 | 18 | 18 |
| 9. bank condition | 14 | 16 | 14 | 12 |
| 10. bank vegetation protection | 15 | 17 | 15 | 13 |
| 11. grazing/disruptive pressures | 17 | 18 | 16 | 16 |
| 12. riparian vegetation zone width | 11 | 17 | 17 | 11 |
| Total Score | 189 | 192 | 177 | 177 |
| Rating ² | OPT | OPT | SUB | SUB |

¹ Refer to Figure 1, and Table 1, for station locations.

² OPT = Optimal; SUB = Suboptimal

TABLE 3
FISHES¹
LITTLE JUNIATA RIVER
BLAIR AND HUNTINGDON COUNTIES

| SPECIES NAME | STATION | | | |
|---|---------|------|------|------|
| | 1LJR | 2LJR | 3LJR | 4LJR |
| Brown trout, <i>Salmo trutta</i> ² | | | C | C |
| Brown trout, <i>Salmo trutta</i> ³ | A | A | | VA |
| Cutlips minnow, <i>Exoglossum maxillingua</i> | C | C | C | |
| Central stoneroller, <i>Campostoma anomalum</i> | R | | | R |
| Blacknose dace, <i>Rhinichthys atratulus</i> | C | C | P | P |
| Longnose dace, <i>Rhinichthys cataractae</i> | A | P | C | C |
| River chub, <i>Nocomis micropogon</i> | A | R | | |
| Fallfish, <i>Semotilus corporalis</i> | | P | P | |
| White sucker, <i>Catostomus commersoni</i> | A | C | A | A |
| Northern hog sucker, <i>Hypentelium nigricans</i> | A | P | C | |
| Green sunfish, <i>Lepomis cyanellus</i> | R | R | P | |
| Redbreast sunfish, <i>Lepomis auritus</i> | | P | | |
| Sculpin, <i>Cottus sp.</i> | R | P | | P |
| Rock bass, <i>Ambloplites rupestris</i> | P | A | A | |
| Smallmouth bass, <i>Micropterus dolomieu</i> | A | A | P | R |
| Tessellated darter, <i>Etheostoma olmstedii</i> | C | R | C | |

1 - Data collected by the Pennsylvania Fish and Boat Commission (Aug 29, 2000)

2 - Mostly wild with a few stocked individuals

3 - Mostly individuals stocked as fingerlings from previous years

A = Abundant (>40); C = Common (16-40); P = Present (4-15); R = Rare (<4)