

## Use Attainability Analysis

<b>1 Water Body Name</b>	Packard Creek
<b>2 Segment Description</b>	Mouth to confluence with unnamed tributary
<b>3 Segment Length (mi)</b>	4.9
<b>4 Drainage Area (sq. mi.)</b>	13.7
<b>5 Segment Start Latitude, Longitude (DD)</b>	40.60285, -92.71974
<b>6 Segment End Latitude, Longitude (DD)</b>	40.63712, -92.76709
<b>7 Route of Flow (Next Downstream Adopted Designated Use)</b>	Packard Creek (A1, proposed, BWW2, existing) to Chariton River (A1, BWW1, HH)
<b>8 NPDES Facility and Permit Number (If Applicable)</b>	N/A - Field work was collected when reviewing the route of flow for Exline STP (0426001).
<b>9 Sample Site ID(s)</b>	1230-4
<b>10 Segment County Name(s)</b>	Appanoose
<b>11 Field Work Date(s)</b>	9/29/2015

### 12 Aquatic Life Use Attainability Analysis - Conclusion

<b>Recommended Highest Attainable Use: Aquatic Life Use</b>	N/A
This segment currently has a designation of BWW2. A lack of age ranges and diversity of game fish species indicates a non-reproducing population (see Supplemental Data). A BWW1 designation requires multiple species and age ranges to be viable. Therefore, the highest attainable aquatic life use for this stream segment is BWW2.	

### 13 Recreational Use Attainability Analysis - Conclusion

<b>Recommended Highest Attainable Use: Recreational Use</b>	A1
<b>40 CFR 131.10(g)(2) (Flow)</b>	Water levels and flow are sufficient to support full body immersion (see Site Observations Table). Therefore, the highest attainable recreational use for this stream segment is A1.

### 14 Flow

Field Work Date	Description
9/29/2015	<a href="#">USGS stream gage data</a> for the area indicated stream flows were normal at the time of assessment.

### Use Attainability Analysis - Data Site Observations

Use	Site parameter	Site ID #1230-4
AL/R	<b>15 Latitude, Longitude (DD)</b>	40.63196, -92.75522
AL/R	<b>16 Average Depth (in)</b>	20.5
AL/R	<b>17 Maximum Depth (in)</b>	>39
AL/R	<b>18 Stream Width (ft)</b>	24
AL/R	<b>19 Pools Observed?</b>	Yes
AL only	<b>20 Non-Game Fish Present and Counts (Species: Number)</b>	Not sampled
	<b>21 Game Fish Present and Counts (Species (Size Range): Number)</b>	Not sampled
	<b>22 Stream Habitat (See also: #29 Site Photos)</b>	Sampling crew indicates a beaver dam downstream has water backed up and no flow present.

Use	Site parameter	Site ID #1230-4
R only	<b>23 Evidence of Use for Primary Contact Recreation? (Yes*/No)</b>	No
	<b>24 Evidence of Use by Children? (Yes*/No)</b>	No
	<b>25 Evidence of Use for Secondary Contact Recreation? (Yes*/No)</b>	No
AL/R	<b>26 Additional Description</b>	Roughly half of the segment is within the Sedan Bottoms Wildlife Management Area.

AL = Aquatic Life

R = Recreation

\*If yes, elaborate.

## 27 Supplemental Data

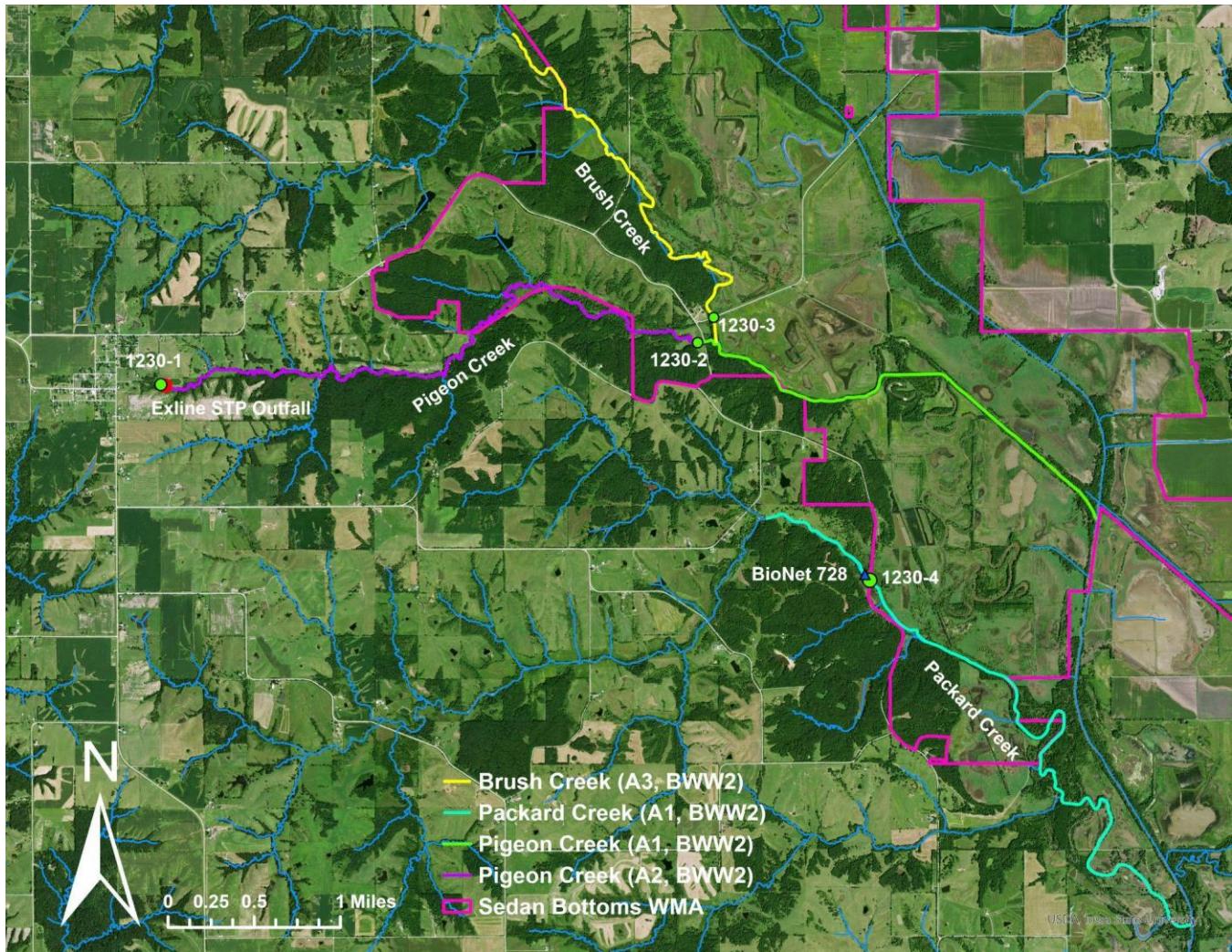
Use	Site parameter	BioNet Site ID #728
AL/R	<b>Latitude, Longitude (DD)</b>	40.63237, -92.75576
AL/R	<b>Field Work Date</b>	9/15/2015
AL/R	<b>Average Depth (in)</b>	4.2
AL/R	<b>Maximum Depth (in)</b>	27.6
AL/R	<b>Pools Observed?</b>	Yes
AL only	<b>Non-Game Fish Present and Counts (Species: Number)</b>	Bigmouth shiner: 45 Bluntnose minnow: 2 Brassy minnow: 3 Central stoneroller: 4 Creek chub: 65 Fathead minnow: 3 Green sunfish: 593 Johnny darter: 7 Orangespotted sunfish: 4 Red shiner: 17 Sand shiner: 6
	<b>Game Fish Present and Counts (Species (Size Range): Number)</b>	Bluegill (1-3"): 4 Hybrid Green Sunfish x Bluegill: 1
AL/R	<b>Additional Description</b>	<a href="https://programs.iowadnr.gov/bionet/Sites/728">https://programs.iowadnr.gov/bionet/Sites/728</a>

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Desktop review verified that the UAA field work is still valid.

## 28 Map of Segment, Outfall, and Site(s)



**29 Site Photos**



**Figure 1. 1230-4 Recreational use assessment midpoint looking upstream.**



**Figure 2. 1230-4 Recreational use assessment midpoint looking downstream.**



**Figure 3. 1230-4 Recreational use assessment upstream looking upstream.**



**Figure 4. 1230-4 Recreational use assessment upstream looking downstream.**



**Figure 5. 1230-4 Recreational use assessment downstream looking upstream.**



**Figure 6. 1230-4 Recreational use assessment downstream looking downstream.**