

Use Attainability Analysis

1 Water Body Name	Jack Creek
2 Segment Description	Mouth to Swan Lake outlet structure
3 Segment Length (mi)	25.1
4 Drainage Area (sq. mi.)	113
5 Segment Start Latitude, Longitude (DD)	43.17027, -94.70870
6 Segment End Latitude, Longitude (DD)	43.36859, -94.65209
7 Route of Flow (Next Downstream Adopted Designated Use)	Jack Creek (A2, proposed, BWW2, existing) to Des Moines River (A1, BWW1, HH)
8 NPDES Facility and Permit Number (If Applicable)	Gruver, City of STP (3225001)
9 Sample Site ID(s)	1055-3a, 1055-4, 1055-5, 1055-6, 1055-7
10 Segment County Name(s)	Palo Alto / Emmet
11 Field Work Date(s)	9/12/2014

12 Aquatic Life Use Attainability Analysis - Conclusion

Recommended Highest Attainable Use: Aquatic Life Use	N/A
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13 Recreational Use Attainability Analysis - Conclusion

Recommended Highest Attainable Use: Recreational Use	A2
40 CFR 131.10(g)(2) (Flow)	The natural low flow conditions and water levels of the stream segment prevent the attainment of an A1 recreational use (see Site Observations Table). An A1 designation requires the ability for full body immersion. Therefore, the highest attainable recreational use is A2.

14 Flow

Field Work Date	Description
9/12/2014	USGS stream gage data for the area indicated stream flows were normal at the time of assessment.

Use Attainability Analysis - Data Site Observations

Use	Site parameter	Site ID #1055-3a
AL/R	15 Latitude, Longitude (DD)	43.37809, -94.62072
AL/R	16 Average Depth (in)	Not measured
AL/R	17 Maximum Depth (in)	Not measured
AL/R	18 Stream Width (ft)	Not measured
AL/R	19 Pools Observed?	Not measured
AL only	20 Non-Game Fish Present and Counts (Species: Number)	Not sampled
	21 Game Fish Present and Counts (Species (Size Range): Number)	Not sampled
	22 Stream Habitat (See also: #29 Site Photos)	Not sampled
R only	23 Evidence of Use for Primary Contact Recreation? (Yes*/No)	Not sampled
	24 Evidence of Use by Children? (Yes*/No)	Not sampled
	25 Evidence of Use for Secondary Contact Recreation? (Yes*/No)	Not sampled

Use	Site parameter	Site ID #1055-3a
AL/R	26 Additional Description	490 th bridge site at conservation area.

Use	Site parameter	Site ID #1055-4
AL/R	15 Latitude, Longitude (DD)	43.36863, -94.65201
AL/R	16 Average Depth (in)	4
AL/R	17 Maximum Depth (in)	12
AL/R	18 Stream Width (ft)	15
AL/R	19 Pools Observed?	Yes
AL only	20 Non-Game Fish Present and Counts (Species: Number)	N/A
	21 Game Fish Present and Counts (Species (Size Range): Number)	N/A
	22 Stream Habitat (See also: #29 Site Photos)	Downstream has riprap and then becomes channelized and steeper. Grassy.
R only	23 Evidence of Use for Primary Contact Recreation? (Yes*/No)	No
	24 Evidence of Use by Children? (Yes*/No)	No
	25 Evidence of Use for Secondary Contact Recreation? (Yes*/No)	No
AL/R	26 Additional Description	12 inches where flow comes over the dam. All riprap, so not a lot of downcutting. Upstream is Swan Lake.

Use	Site parameter	Site ID #1055-5
AL/R	15 Latitude, Longitude (DD)	43.31308, -94.63480
AL/R	16 Average Depth (in)	10.5
AL/R	17 Maximum Depth (in)	20
AL/R	18 Stream Width (ft)	19.5
AL/R	19 Pools Observed?	Yes
AL only	20 Non-Game Fish Present and Counts (Species: Number)	N/A
	21 Game Fish Present and Counts (Species (Size Range): Number)	N/A
	22 Stream Habitat (See also: #29 Site Photos)	Channelized, steep slopes, grass-lined stream.
R only	23 Evidence of Use for Primary Contact Recreation? (Yes*/No)	No
	24 Evidence of Use by Children? (Yes*/No)	No
	25 Evidence of Use for Secondary Contact Recreation? (Yes*/No)	No
AL/R	26 Additional Description	Very rural/agricultural. Cropland surrounds the segment. The site is at a large culvert.

Use	Site parameter	Site ID #1055-6
AL/R	15 Latitude, Longitude (DD)	43.24152, -94.67930
AL/R	16 Average Depth (in)	12
AL/R	17 Maximum Depth (in)	21
AL/R	18 Stream Width (ft)	35
AL/R	19 Pools Observed?	Yes
AL only	20 Non-Game Fish Present and Counts (Species: Number)	N/A

Use	Site parameter	Site ID #1055-6
	21 Game Fish Present and Counts (Species (Size Range): Number)	N/A
	22 Stream Habitat (See also: #29 Site Photos)	Wider, more shallow and meandering stream. Grass-lined.
R only	23 Evidence of Use for Primary Contact Recreation? (Yes*/No)	No
	24 Evidence of Use by Children? (Yes*/No)	No
	25 Evidence of Use for Secondary Contact Recreation? (Yes*/No)	No
AL/R	26 Additional Description	Pastured areas surround the segment.

Use	Site parameter	Site ID #1055-7
AL/R	15 Latitude, Longitude (DD)	43.18825, -94.71265
AL/R	16 Average Depth (in)	10
AL/R	17 Maximum Depth (in)	18
AL/R	18 Stream Width (ft)	27
AL/R	19 Pools Observed?	Yes
AL only	20 Non-Game Fish Present and Counts (Species: Number)	N/A
	21 Game Fish Present and Counts (Species (Size Range): Number)	N/A
	22 Stream Habitat (See also: #29 Site Photos)	Channelized but not as steep. Grass-lined.
R only	23 Evidence of Use for Primary Contact Recreation? (Yes*/No)	No
	24 Evidence of Use by Children? (Yes*/No)	No
	25 Evidence of Use for Secondary Contact Recreation? (Yes*/No)	No
AL/R	26 Additional Description	Very rural. House to the SW.

AL = Aquatic Life

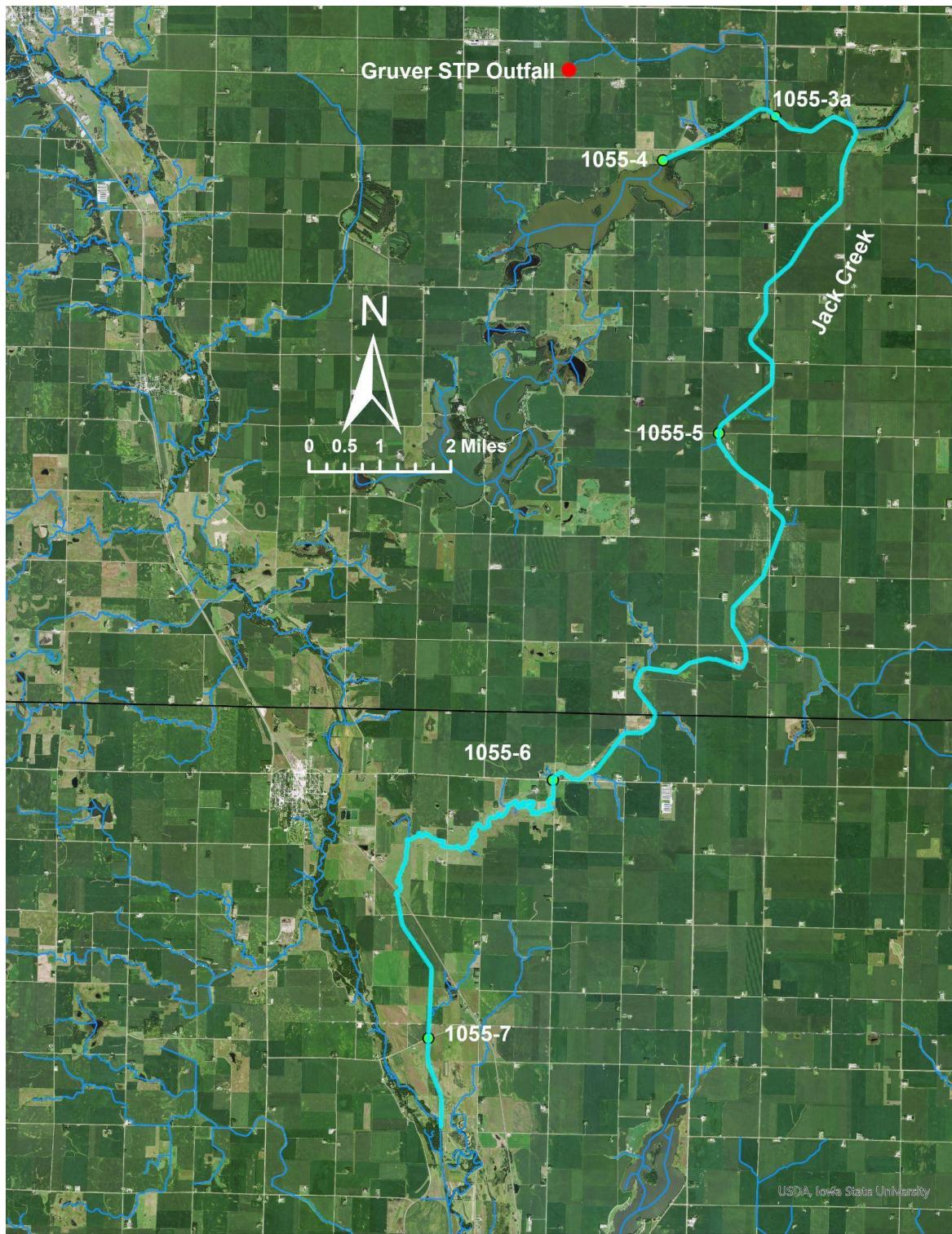
R = Recreation

*If yes, elaborate.

27 Supplemental Data

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

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



29 Site Photos



Figure 1. 1053-3a Recreational use assessment midpoint looking upstream.



Figure 2. 1055-3a Recreational use assessment midpoint looking downstream.



Figure 3. 1055-3a Looking at parking area from bridge.



Figure 4. 1055-3a Parking area adjacent to stream view 1.



Figure 5. 1055-3a Parking area adjacent to stream view 2.



Figure 6. 1055-3a Wildlife management area adjacent to stream.



Figure 7. 1055-4 Recreational use assessment midpoint looking downstream.



Figure 8. 1055-4 Recreational use assessment midpoint looking downstream view 2.



Figure 9. 1055-4 Recreational use assessment downstream looking upstream.



Figure 10. 1055-4 Recreational use assessment downstream looking downstream.



Figure 11. 1055-4 Bridge at Swan Lake outlet.



Figure 12. 1055-4 Graffiti.



Figure 13. 1055-4 Looking at Swan Lake from the bridge.



Figure 14. 1055-4 Looking upstream at Swan Lake.



Figure 15. 1055-4 Swan Lake outlet.



Figure 16. 1055-5 Recreational use assessment midpoint looking upstream.



Figure 17. 1055-5 Recreational use assessment upstream looking upstream.



Figure 18. 1055-5 Recreational use assessment upstream looking downstream.



Figure 19. 1055-5 Recreational use assessment downstream looking upstream.



Figure 20. 1055-5 Recreational use assessment downstream looking downstream.



Figure 21. 1055-5 Road facing east.



Figure 22. 1055-5 Road facing west.



Figure 23. 1055-6 Recreational use assessment midpoint looking upstream.



Figure 24. 1055-6 Recreational use assessment midpoint looking downstream.



Figure 25. 1055-6 Recreational use assessment upstream looking upstream.



Figure 26. 1055-6 Recreational use assessment upstream looking downstream.



Figure 27. 1055-6 Recreational use assessment downstream looking upstream.



Figure 28. 1055-6 Recreational use assessment downstream looking downstream.



Figure 29. 1055-7 Recreational use assessment midpoint looking upstream.



Figure 30. 1055-7 Recreational use assessment midpoint looking downstream.



Figure 31. 1055-7 Recreational use assessment upstream looking upstream.



Figure 32. 1055-7 Recreational use assessment upstream looking downstream.



Figure 33. 1055-7 Recreational use assessment downstream looking upstream.



Figure 34. 1055-7 Recreational use assessment downstream looking downstream.



Figure 35. 1055-7 Road facing east.



Figure 36. 1055-7 Road facing west.



Figure 37. 1055-7 Streamside lane.



Figure 38. 1055-7 Wildlife management area sign.