

# PHYSICAL STREAM CONDITIONS AND HABITAT CHARACTERISTICS APPENDIX S





## Map S.1

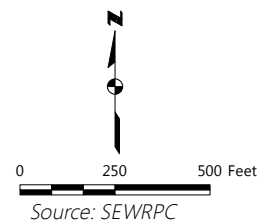
### Locations of Instream Transect Surveys and Observed Deep Pools and Riffles Within the Lower Oak Creek- Grant Park Ravine Assessment Area



#### HABITAT TRANSECT SURVEY

- ★ POOL TRANSECT
- ★ RIFFLE TRANSECT
- ★ RUN TRANSECT
- DEEP POOL HABITAT OBSERVED
- RIFFLE HABITAT OBSERVED

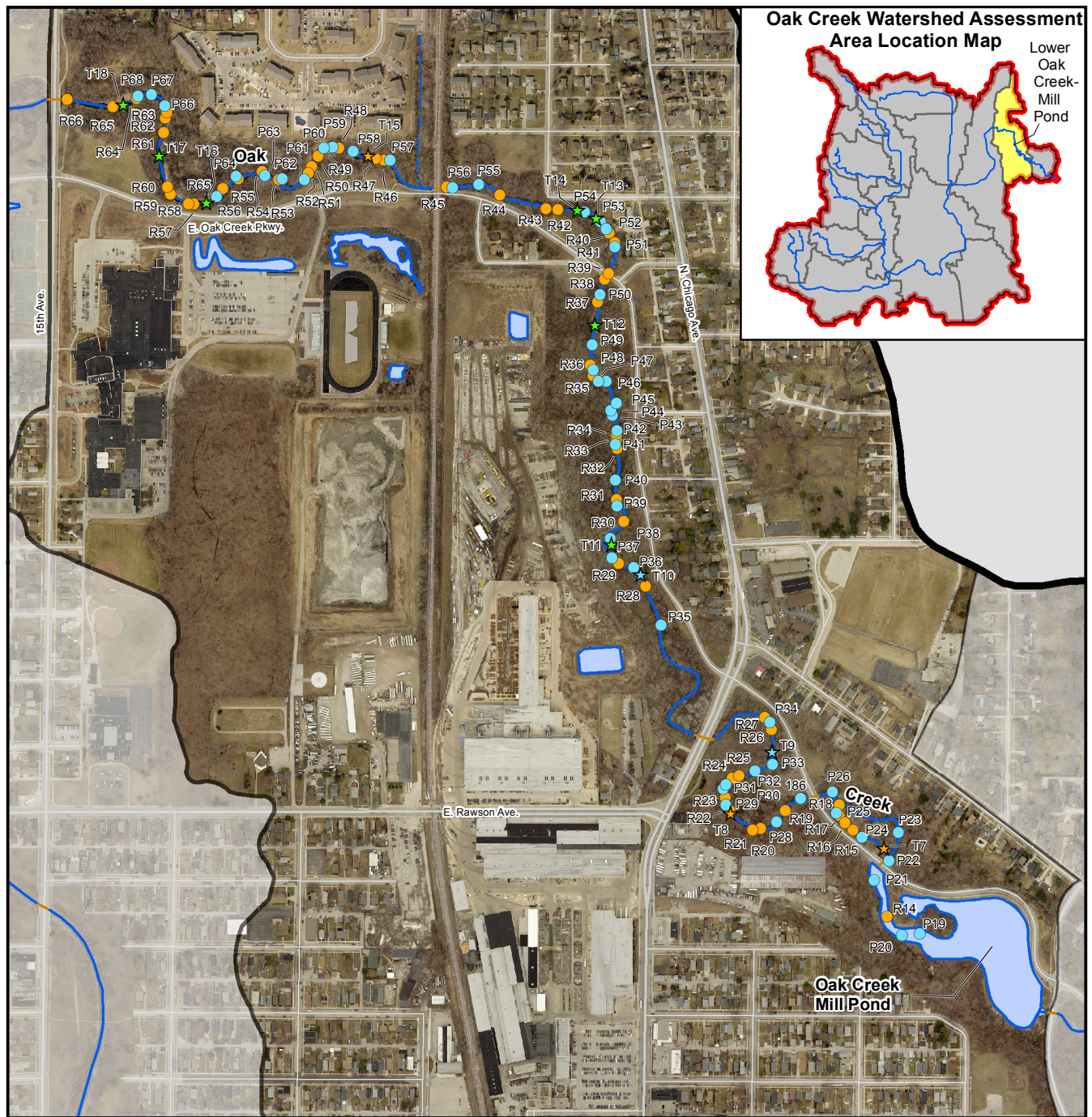
- ▬ OAK CREEK WATERSHED BOUNDARY
- ▬ ASSESSMENT AREA BOUNDARIES
- PERENNIAL STREAM
- PERENNIAL STREAM (ENCLOSED)
- INTERMITTENT STREAM
- INTERMITTENT STREAM (ENCLOSED)
- SURFACE WATER





## Map S.2

### Locations of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Lower Oak Creek – Mill Pond Assessment Area



HABITAT TRANSECT SURVEY

★ POOL TRANSECT

★ RIFFLE TRANSECT

★ RUN TRANSECT

● DEEP POOL HABITAT OBSERVED

● RIFFLE HABITAT OBSERVED



OAK CREEK WATERSHED BOUNDARY



ASSESSMENT AREA BOUNDARIES



PERENNIAL STREAM



PERENNIAL STREAM (ENCLOSED)



INTERMITTENT STREAM



INTERMITTENT STREAM (ENCLOSED)



SURFACE WATER

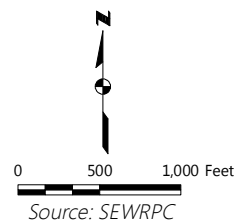


0 350 700 Feet

Source: SEWRPC



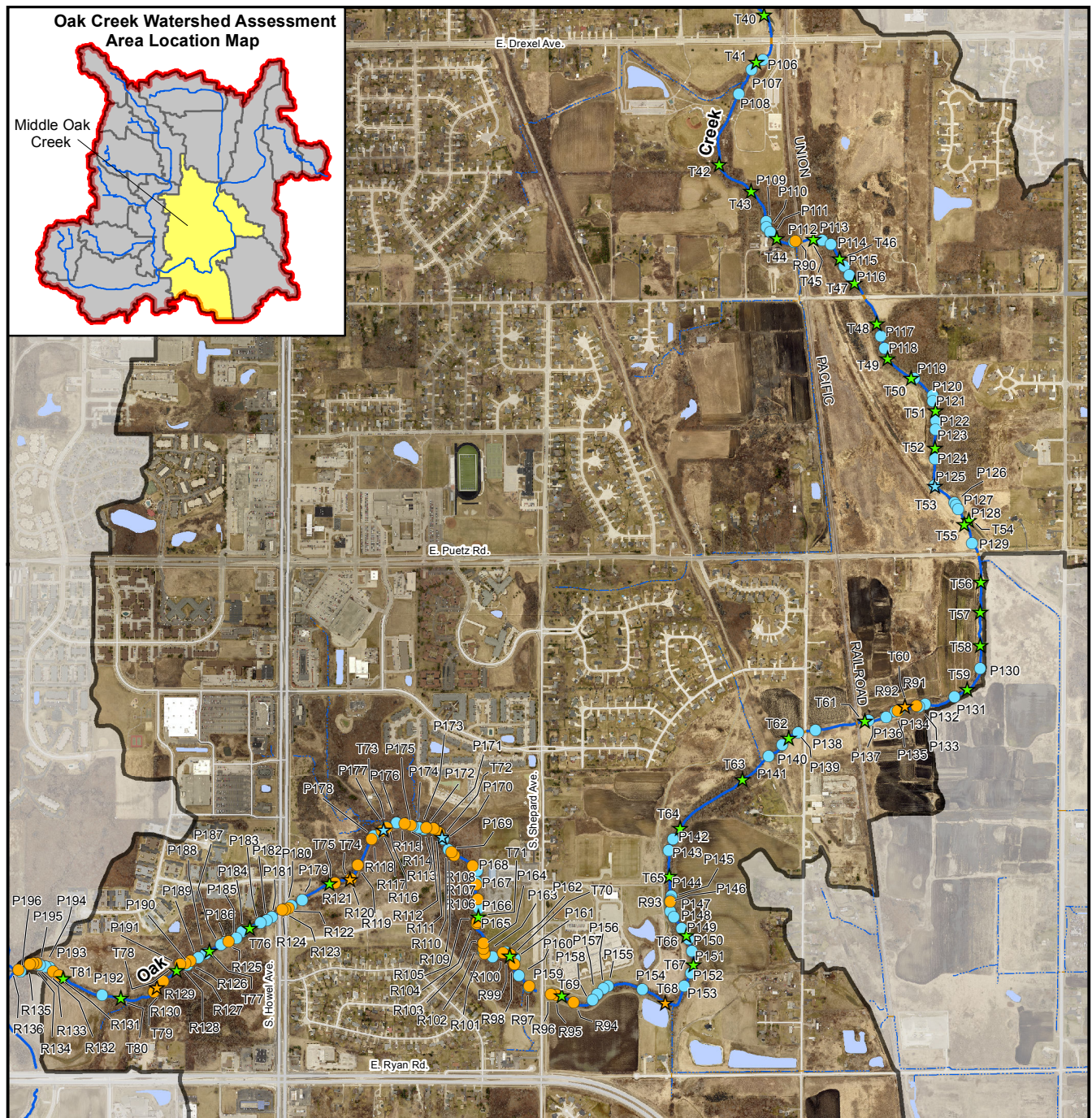
### Locations of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Lower Oak Creek Assessment Area





## Map S.4

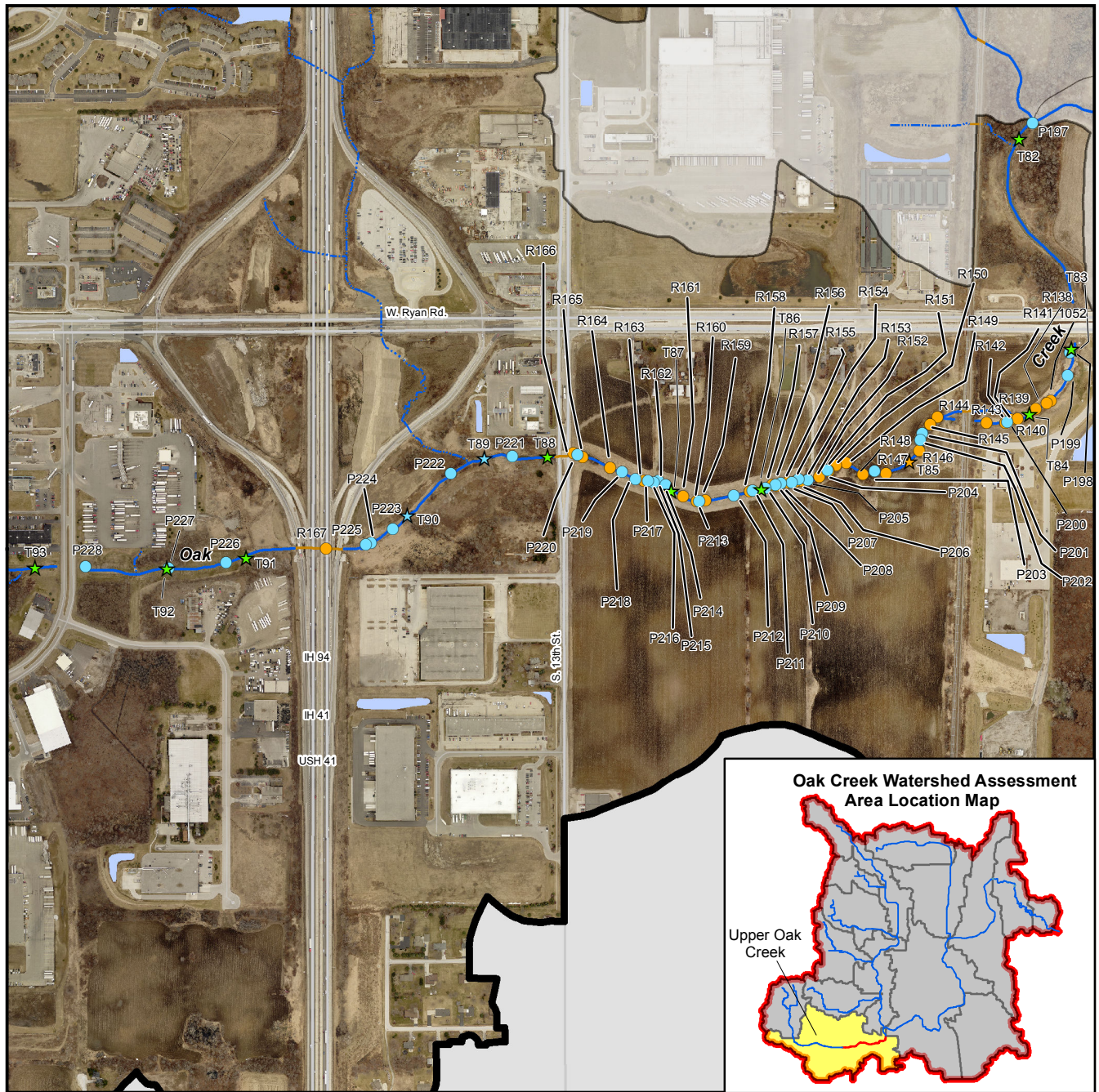
### Locations of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Middle Oak Creek Assessment Area





## Map S.5

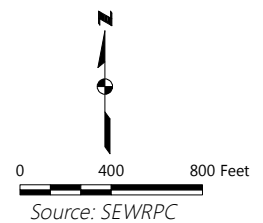
### Location of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Upper Oak Creek Assessment Area (Reach 1)



#### HABITAT TRANSECT SURVEY

- ★ POOL TRANSECT
- ★ RIFFLE TRANSECT
- ★ RUN TRANSECT
- DEEP POOL HABITAT OBSERVED
- RIFFLE HABITAT OBSERVED

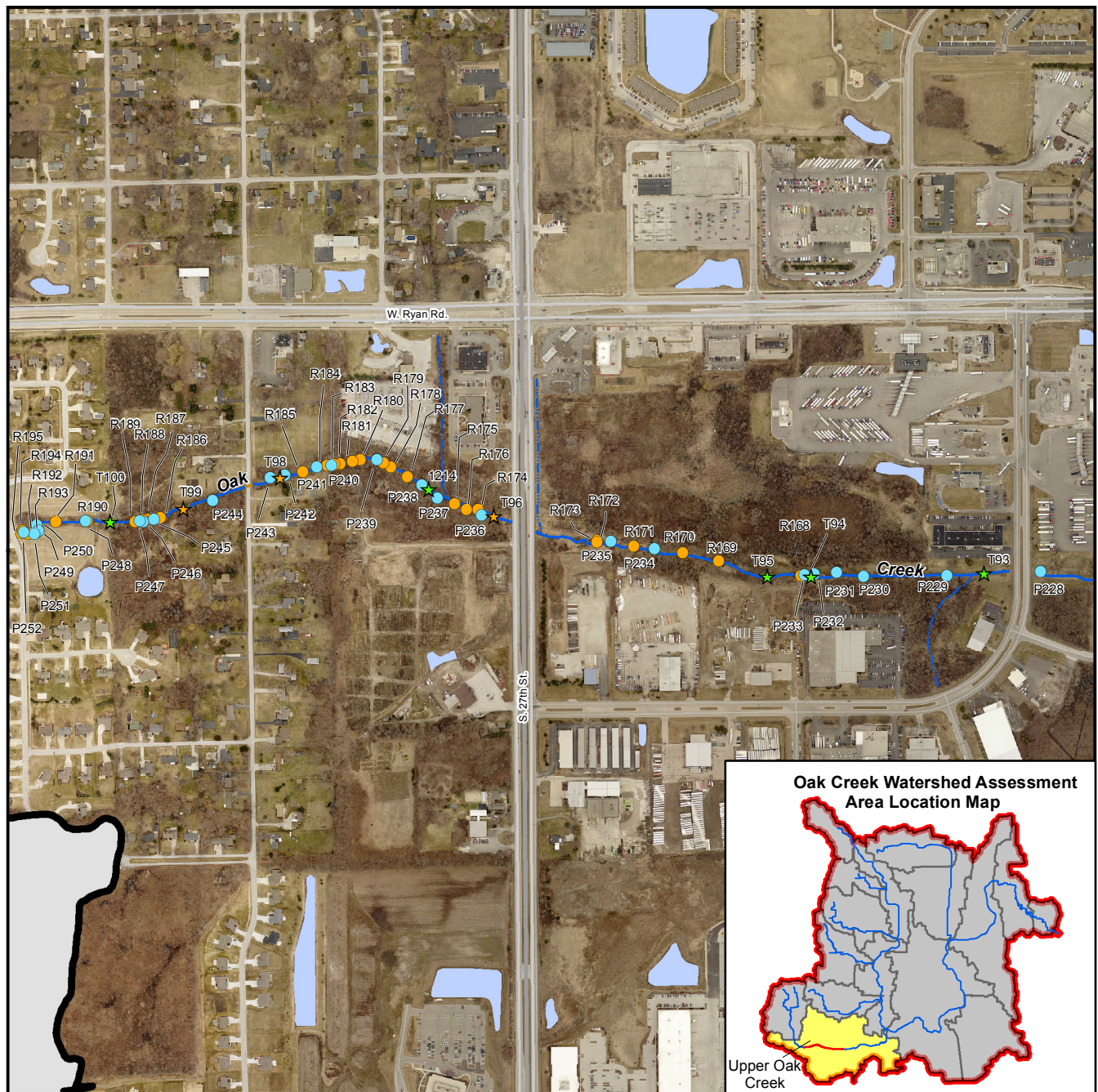
- OAK CREEK WATERSHED BOUNDARY
- ASSESSMENT AREA BOUNDARIES
- PERENNIAL STREAM
- PERENNIAL STREAM (ENCLOSED)
- INTERMITTENT STREAM
- INTERMITTENT STREAM (ENCLOSED)
- SURFACE WATER





## Map S.6

### Location of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Upper Oak Creek Assessment Area (Reach 2)



HABITAT TRANSECT SURVEY

★ POOL TRANSECT

★ RIFFLE TRANSECT

★ RUN TRANSECT

● DEEP POOL HABITAT OBSERVED

● RIFFLE HABITAT OBSERVED



OAK CREEK WATERSHED BOUNDARY



ASSESSMENT AREA BOUNDARIES



PERENNIAL STREAM



PERENNIAL STREAM (ENCLOSED)



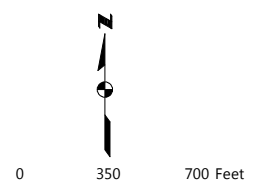
INTERMITTENT STREAM



INTERMITTENT STREAM (ENCLOSED)



SURFACE WATER

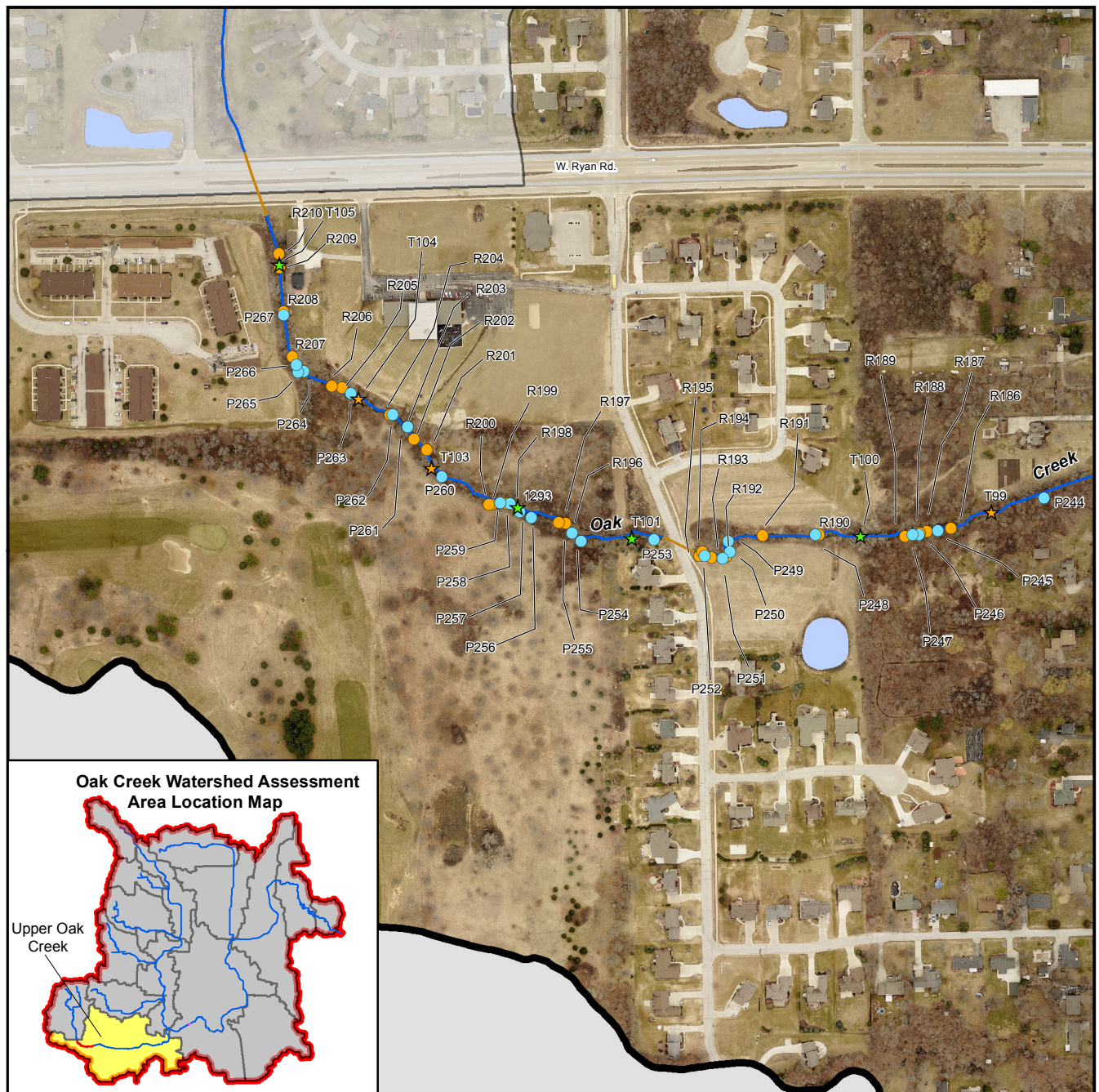


Source: SEWRPC



## Map S.7

### Location of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Upper Oak Creek Assessment Area (Reach 3)



HABITAT TRANSECT SURVEY

★ POOL TRANSECT

★ RIFFLE TRANSECT

★ RUN TRANSECT

● DEEP POOL HABITAT OBSERVED

● RIFFLE HABITAT OBSERVED



OAK CREEK WATERSHED BOUNDARY



ASSESSMENT AREA BOUNDARIES



PERENNIAL STREAM



PERENNIAL STREAM (ENCLOSED)



INTERMITTENT STREAM



INTERMITTENT STREAM (ENCLOSED)



SURFACE WATER



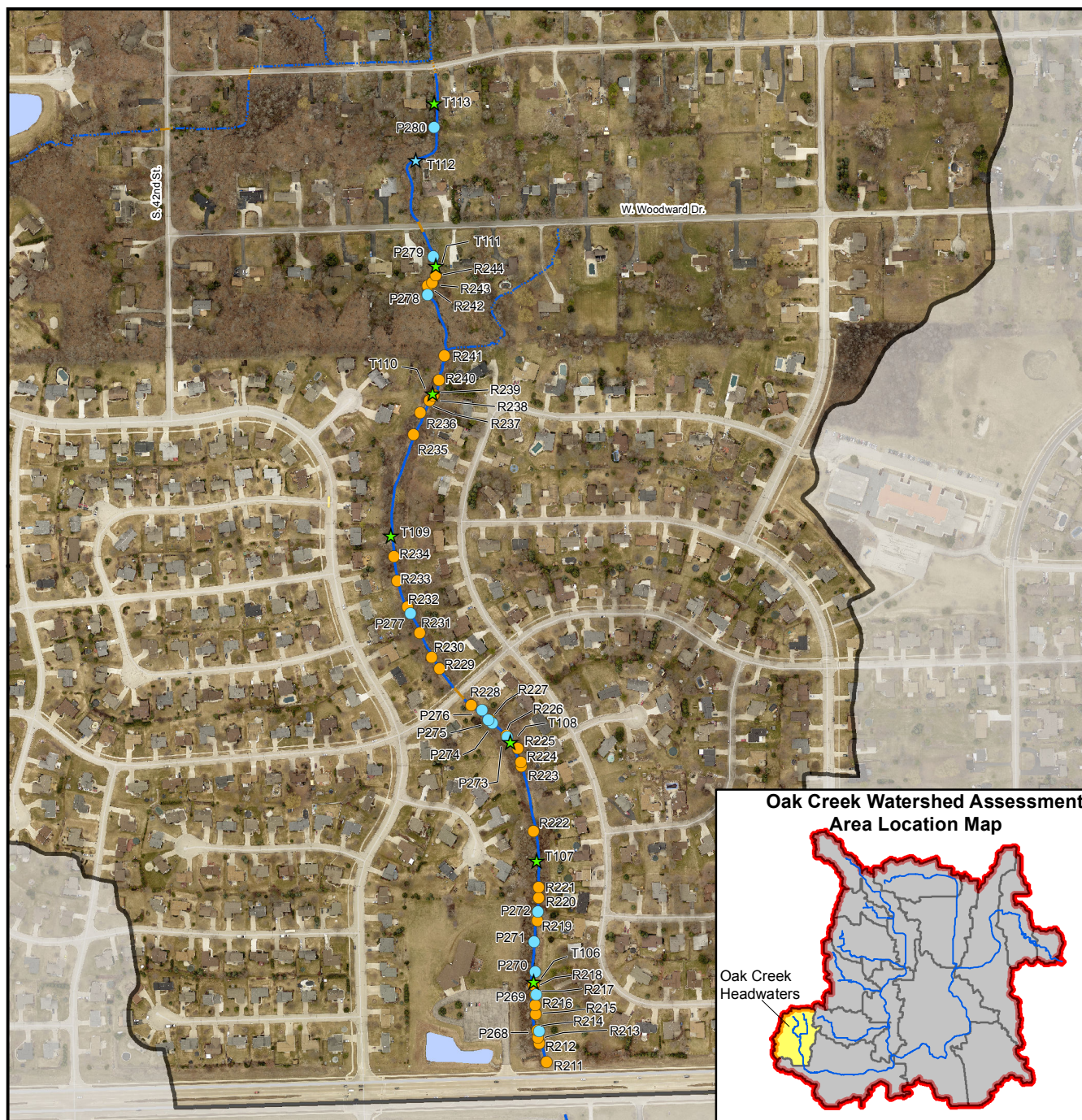
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Source: SEWRPC



## Map S.8

### Location of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Oak Creek Headwaters Assessment Area



HABITAT TRANSECT SURVEY

★ POOL TRANSECT

★ RIFFLE TRANSECT

★ RUN TRANSECT

● DEEP POOL HABITAT OBSERVED

● RIFFLE HABITAT OBSERVED



OAK CREEK WATERSHED BOUNDARY



ASSESSMENT AREA BOUNDARIES



PERENNIAL STREAM



PERENNIAL STREAM (ENCLOSED)



INTERMITTENT STREAM



INTERMITTENT STREAM (ENCLOSED)



SURFACE WATER

N

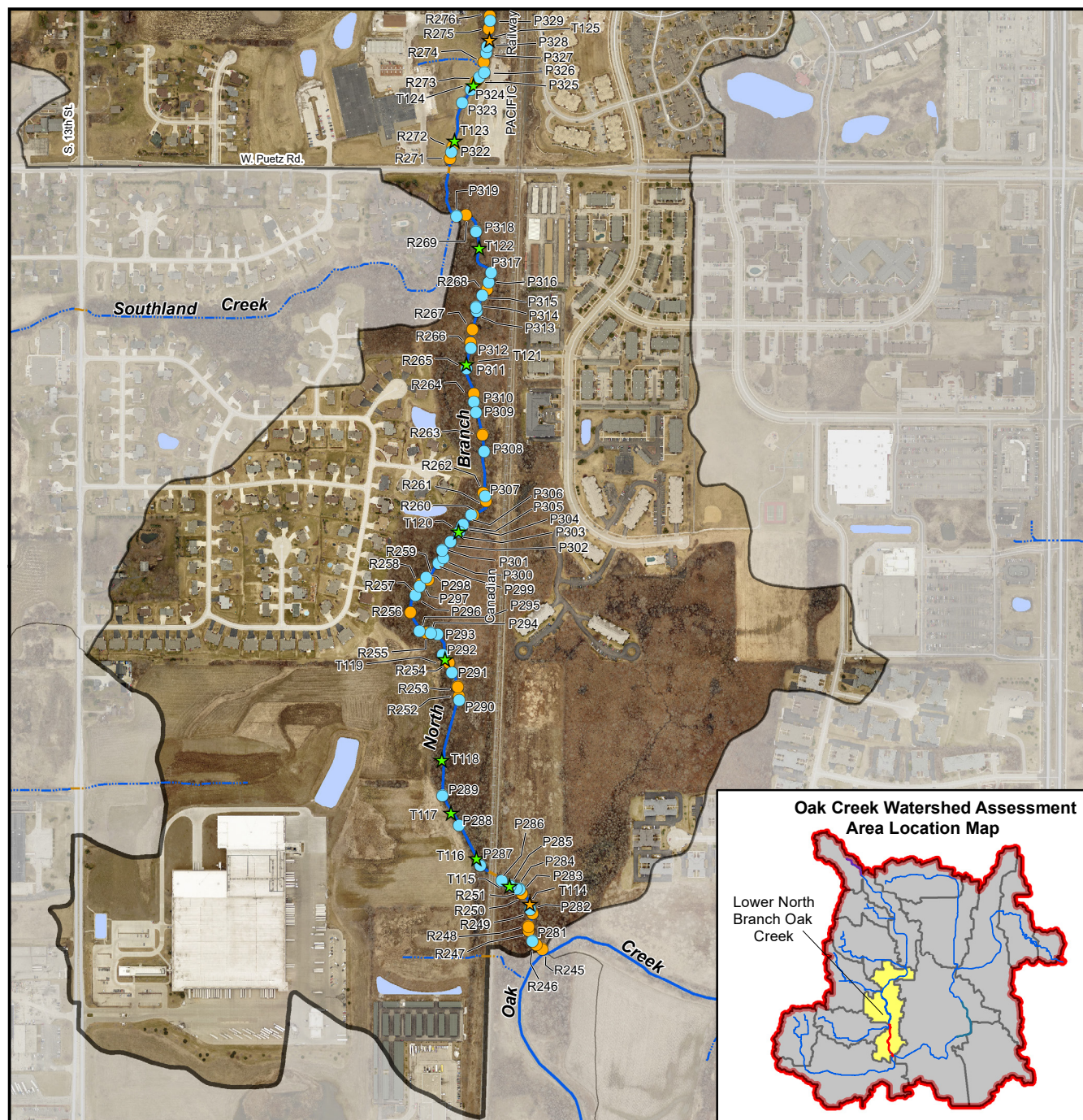
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Source: SEWRPC



## Map S.9

### Location of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Lower North Branch Oak Creek Assessment Area (Reach 1)



HABITAT TRANSECT SURVEY

★ POOL TRANSECT

★ RIFFLE TRANSECT

★ RUN TRANSECT

● DEEP POOL HABITAT OBSERVED

● RIFFLE HABITAT OBSERVED



OAK CREEK WATERSHED BOUNDARY



ASSESSMENT AREA BOUNDARIES



PERENNIAL STREAM



PERENNIAL STREAM (ENCLOSED)



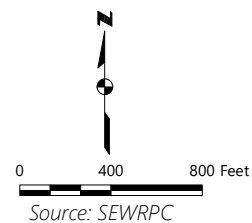
INTERMITTENT STREAM



INTERMITTENT STREAM (ENCLOSED)



SURFACE WATER





## Map S.10

### Location of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Lower North Branch Oak Creek Assessment Area (Reach 2)



#### HABITAT TRANSECT SURVEY

★ POOL TRANSECT

★ RIFFLE TRANSECT

★ RUN TRANSECT

● DEEP POOL HABITAT OBSERVED

● RIFFLE HABITAT OBSERVED



OAK CREEK WATERSHED BOUNDARY



ASSESSMENT AREA BOUNDARIES



PERENNIAL STREAM



PERENNIAL STREAM (ENCLOSED)



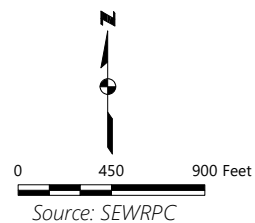
INTERMITTENT STREAM



INTERMITTENT STREAM (ENCLOSED)



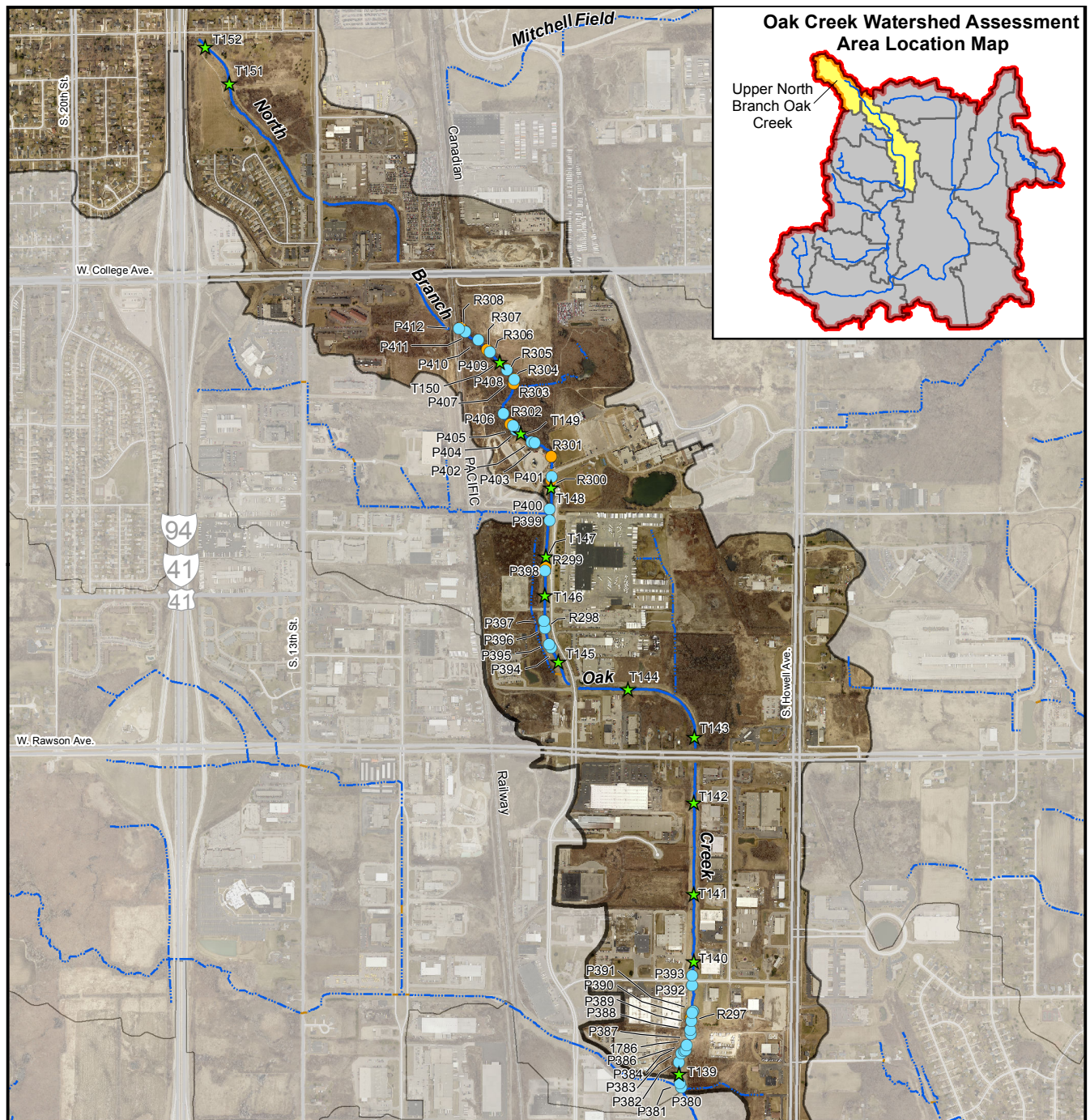
SURFACE WATER





## Map S.11

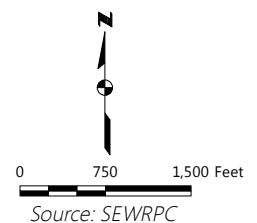
### Location of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Upper North Branch Oak Creek Assessment Area



#### HABITAT TRANSECT SURVEY

- ★ POOL TRANSECT
- ★ RIFFLE TRANSECT
- ★ RUN TRANSECT
- DEEP POOL HABITAT OBSERVED
- RIFFLE HABITAT OBSERVED

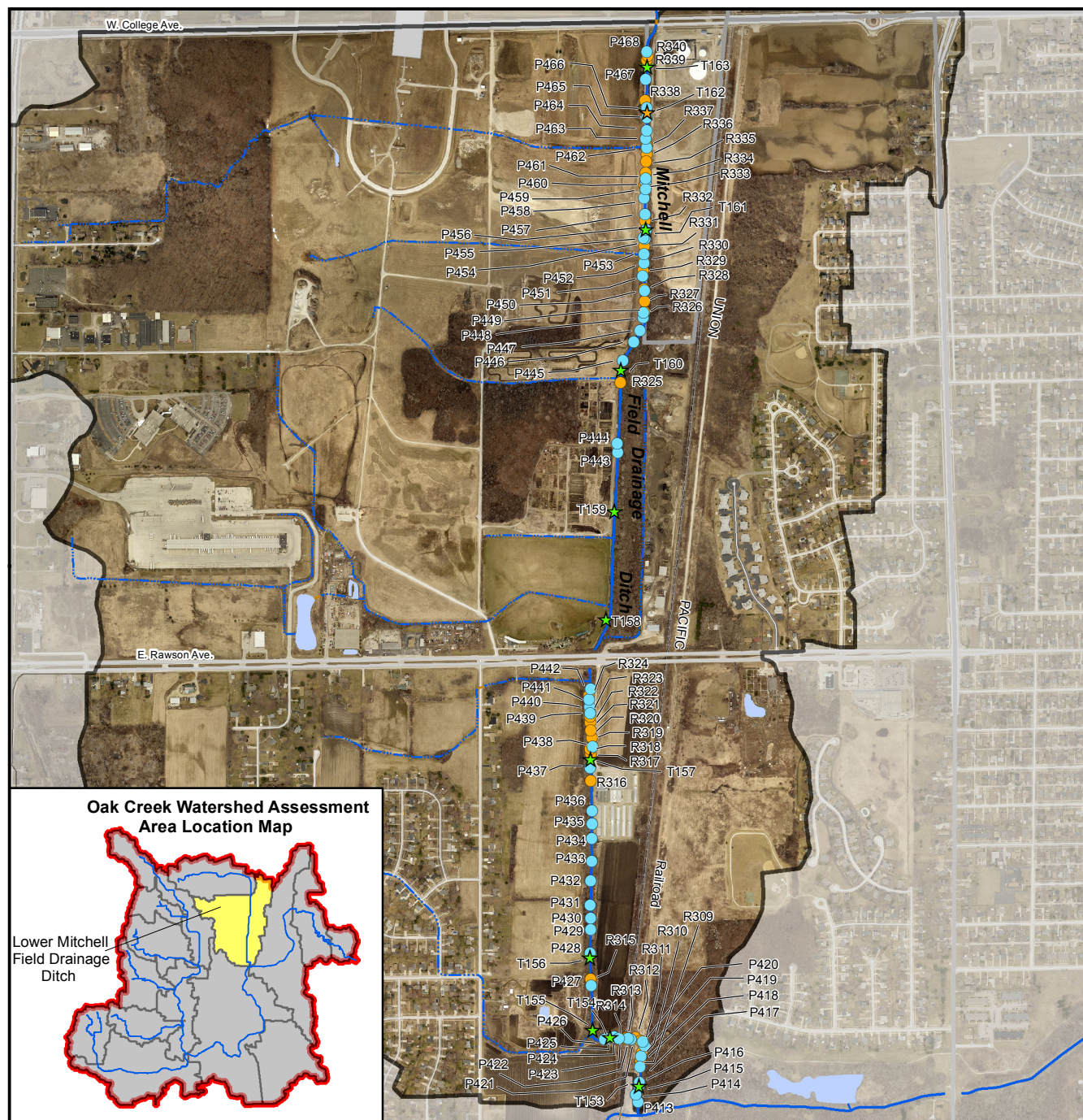
- ▭ OAK CREEK WATERSHED BOUNDARY
- ▭ ASSESSMENT AREA BOUNDARIES
- PERENNIAL STREAM
- PERENNIAL STREAM (ENCLOSED)
- INTERMITTENT STREAM
- INTERMITTENT STREAM (ENCLOSED)
- SURFACE WATER





## Map S.12

### Location of Instream Habitat Transect Surveys and Observed Deep Pools and Riffles Within the Lower Mitchell Field Drainage Ditch Assessment Area





## Map S.13

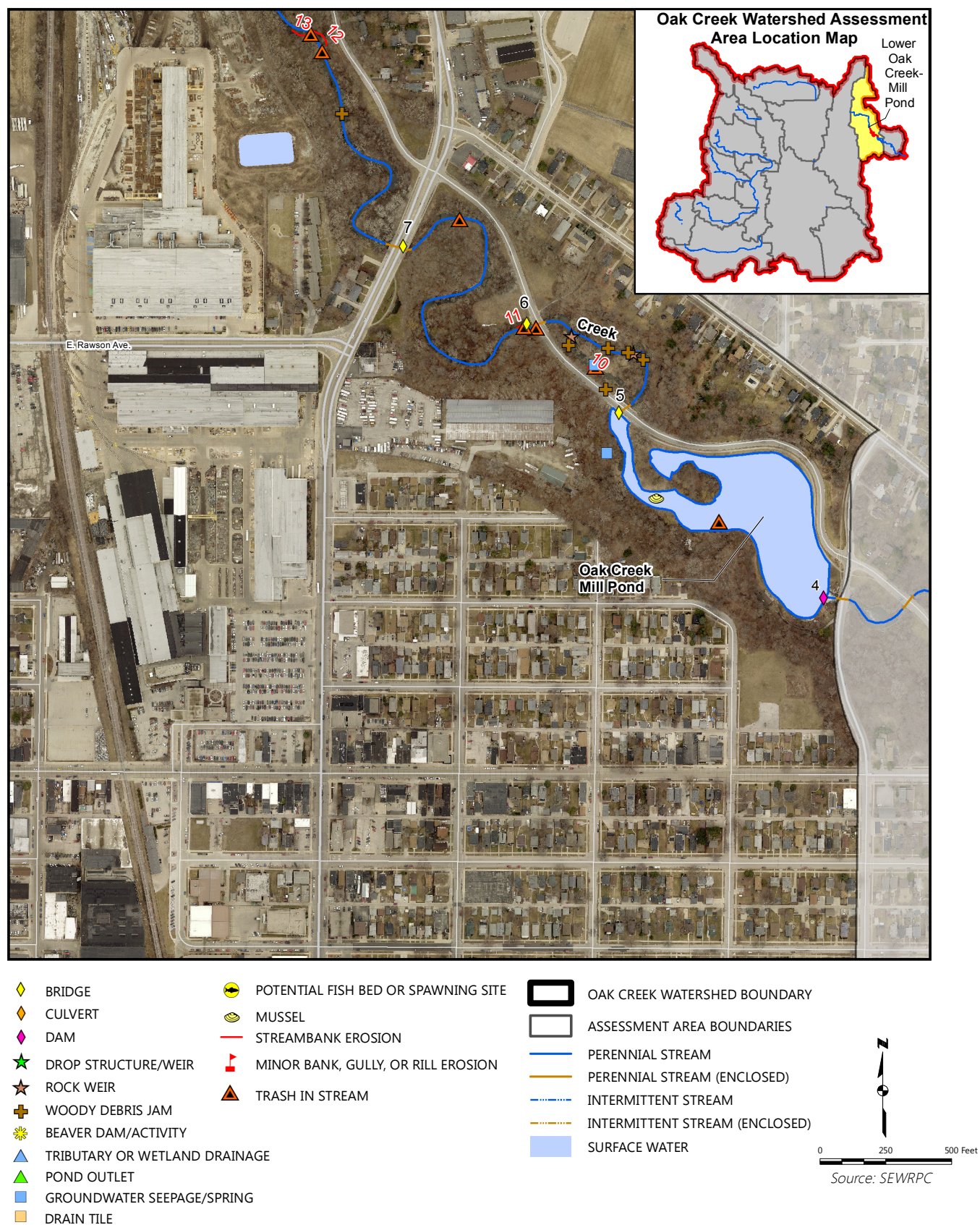
### Stream Survey Inventory Within the Lower Oak Creek- Grant Park Ravine Assessment Area





# Map S.14

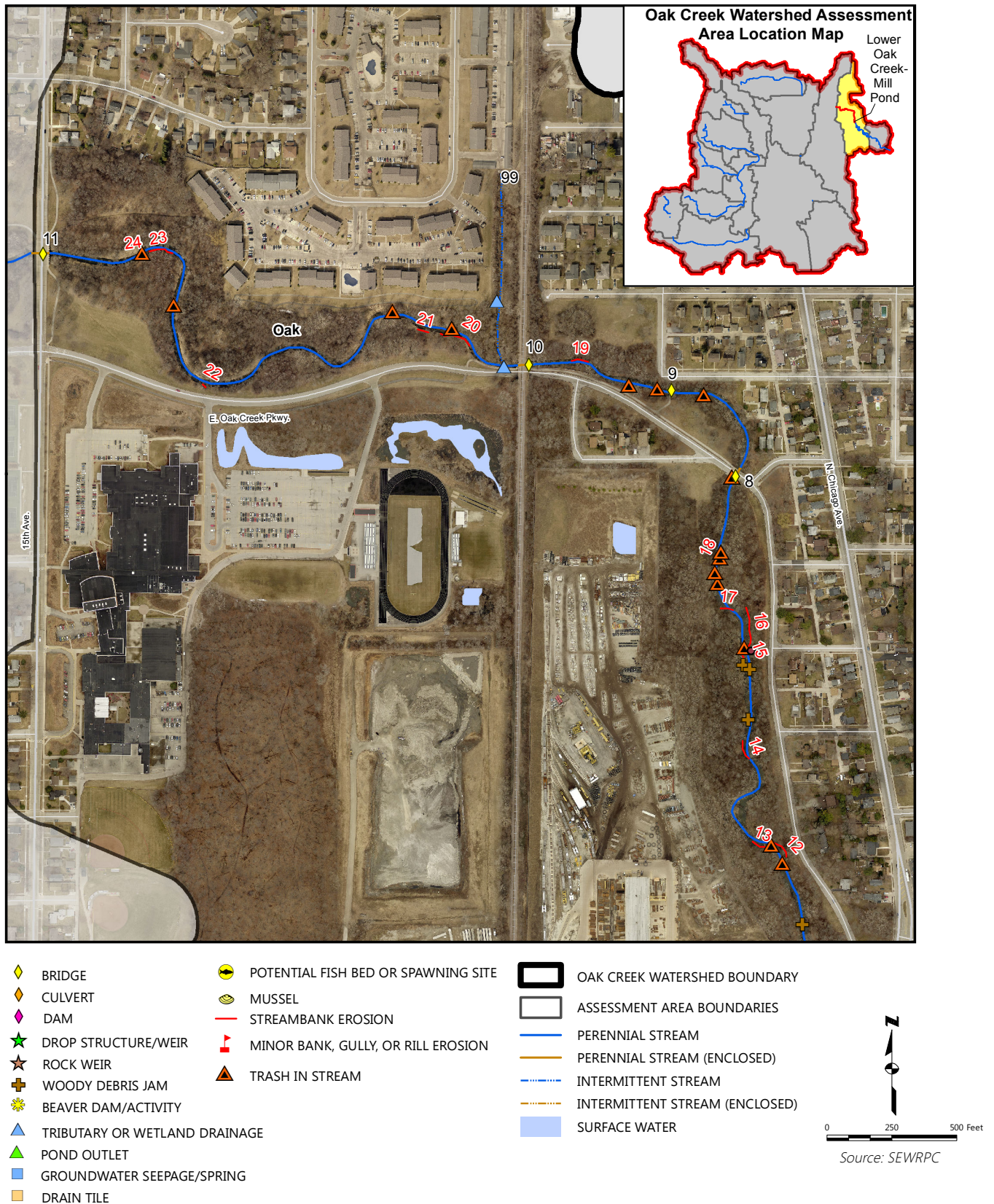
## Stream Survey Inventory for the Lower Oak Creek- Mill Pond Assessment Area (Reach 1)





# Map S.15

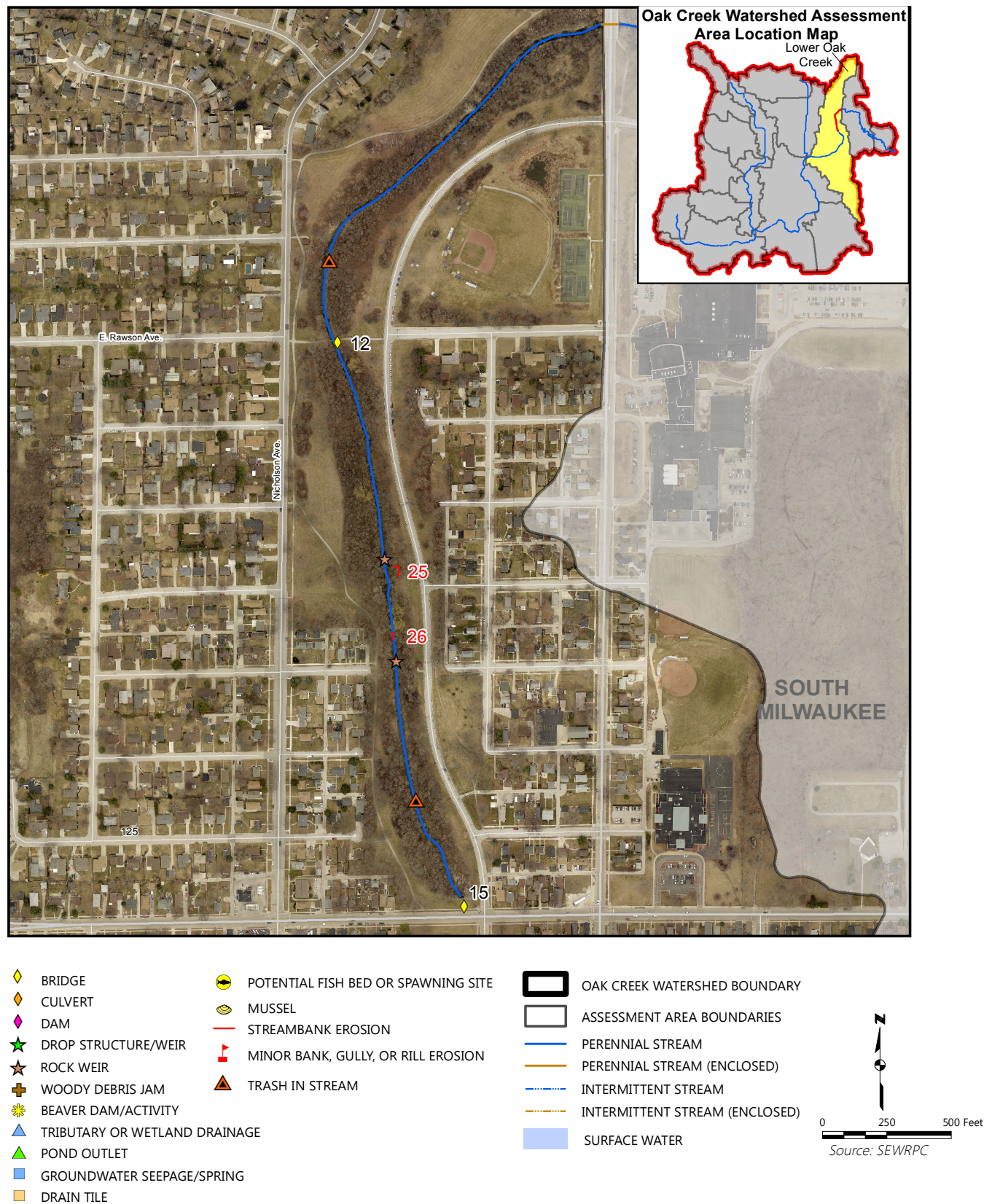
## Stream Survey Inventory for the Lower Oak Creek- Mill Pond Assessment Area (Reach 2)





## Map S.16

### Stream Survey Inventory for the Lower Oak Creek Assessment Area (Reach 1)

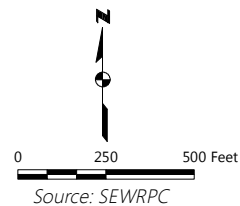




**Map S.17**  
**Stream Survey Inventory for the Lower Oak Creek Assessment Area (Reach 2)**

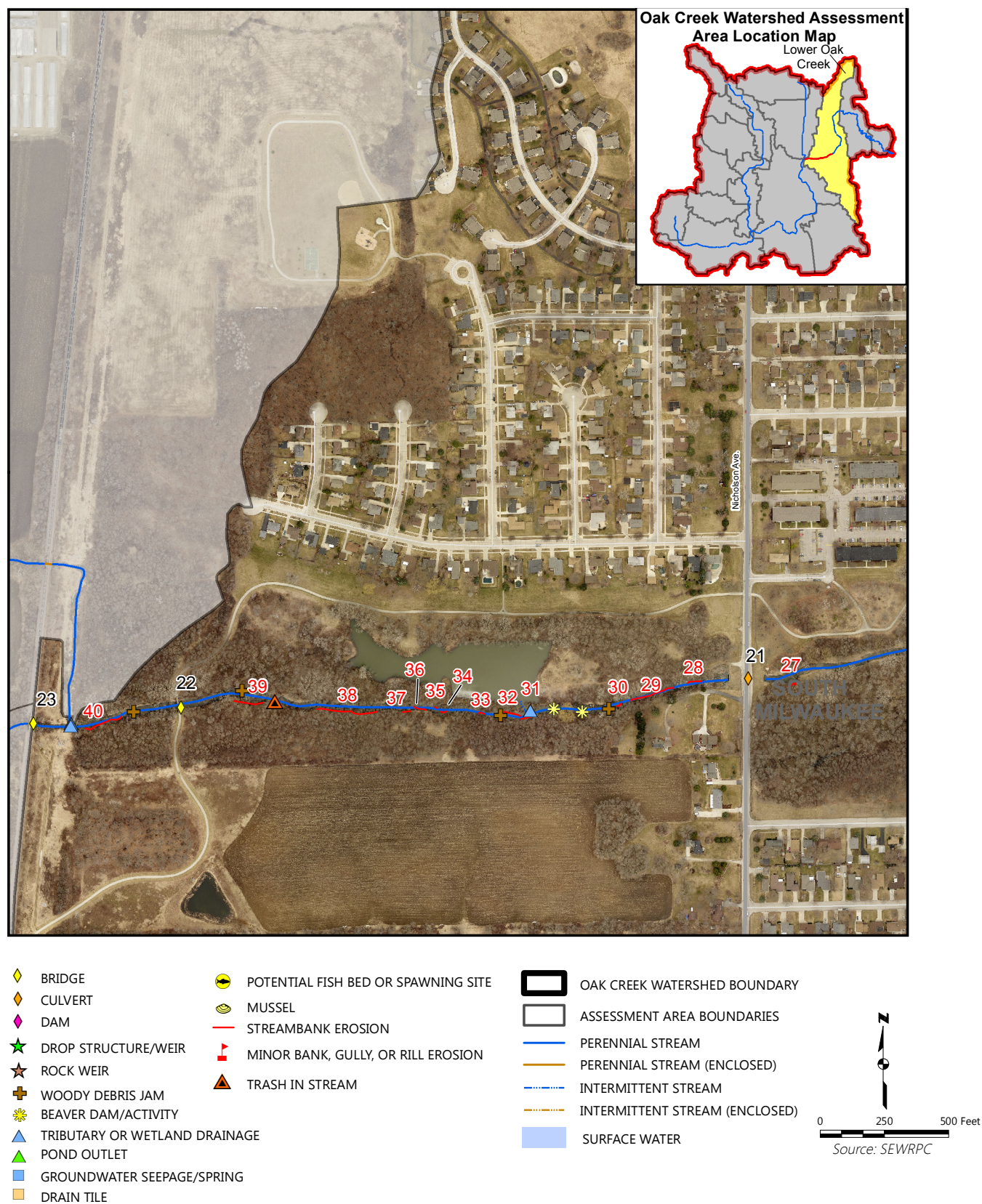


- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ▲ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ✚ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ✚ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |





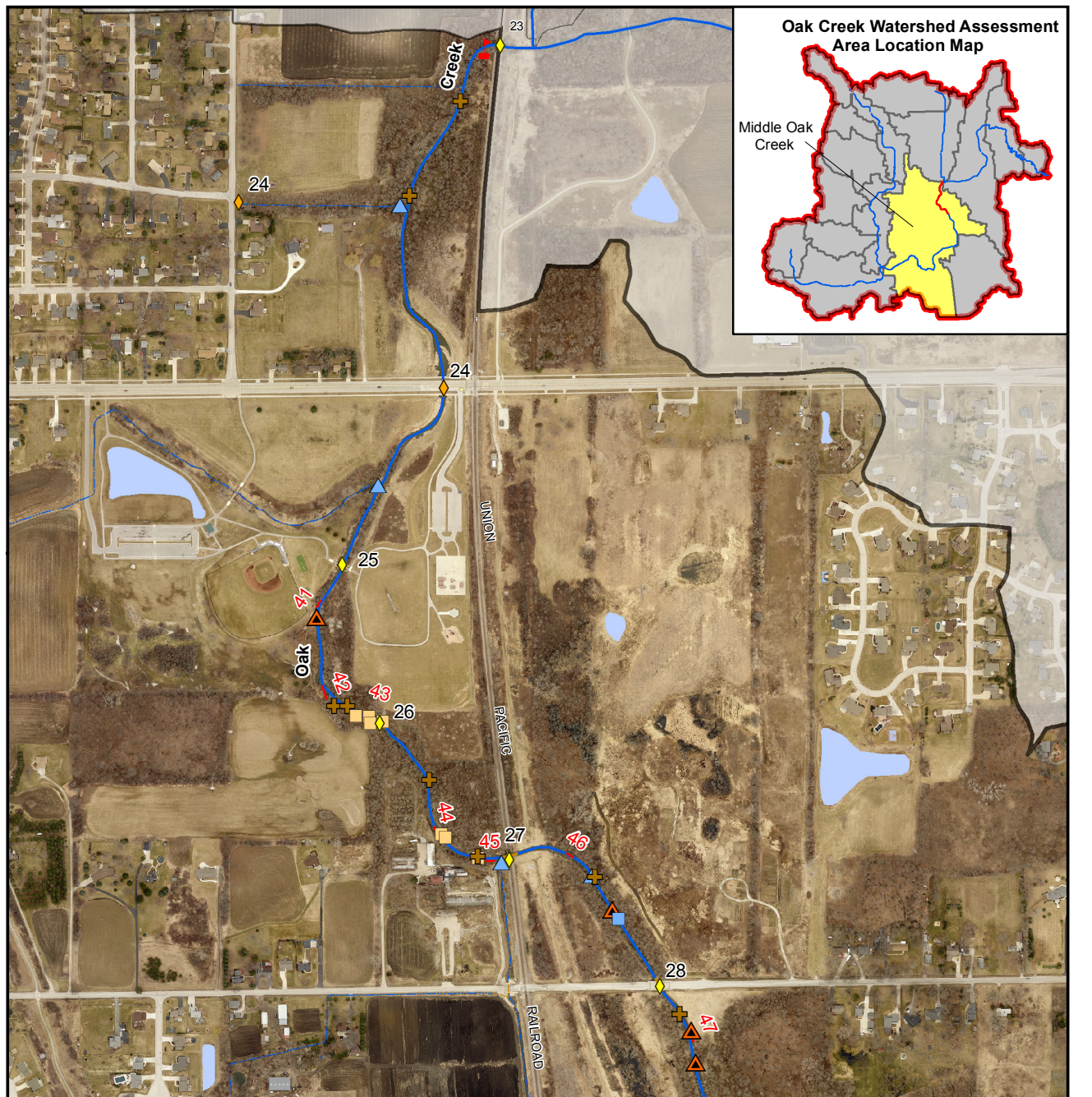
**Map S.18**  
**Stream Survey Inventory for the Lower Oak Creek Assessment Area (Reach 3)**



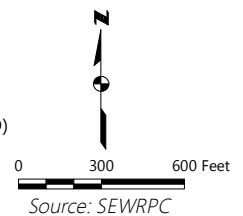


## Map S.19

### Stream Survey Inventory for the Middle Oak Creek Assessment Area (Reach 1)



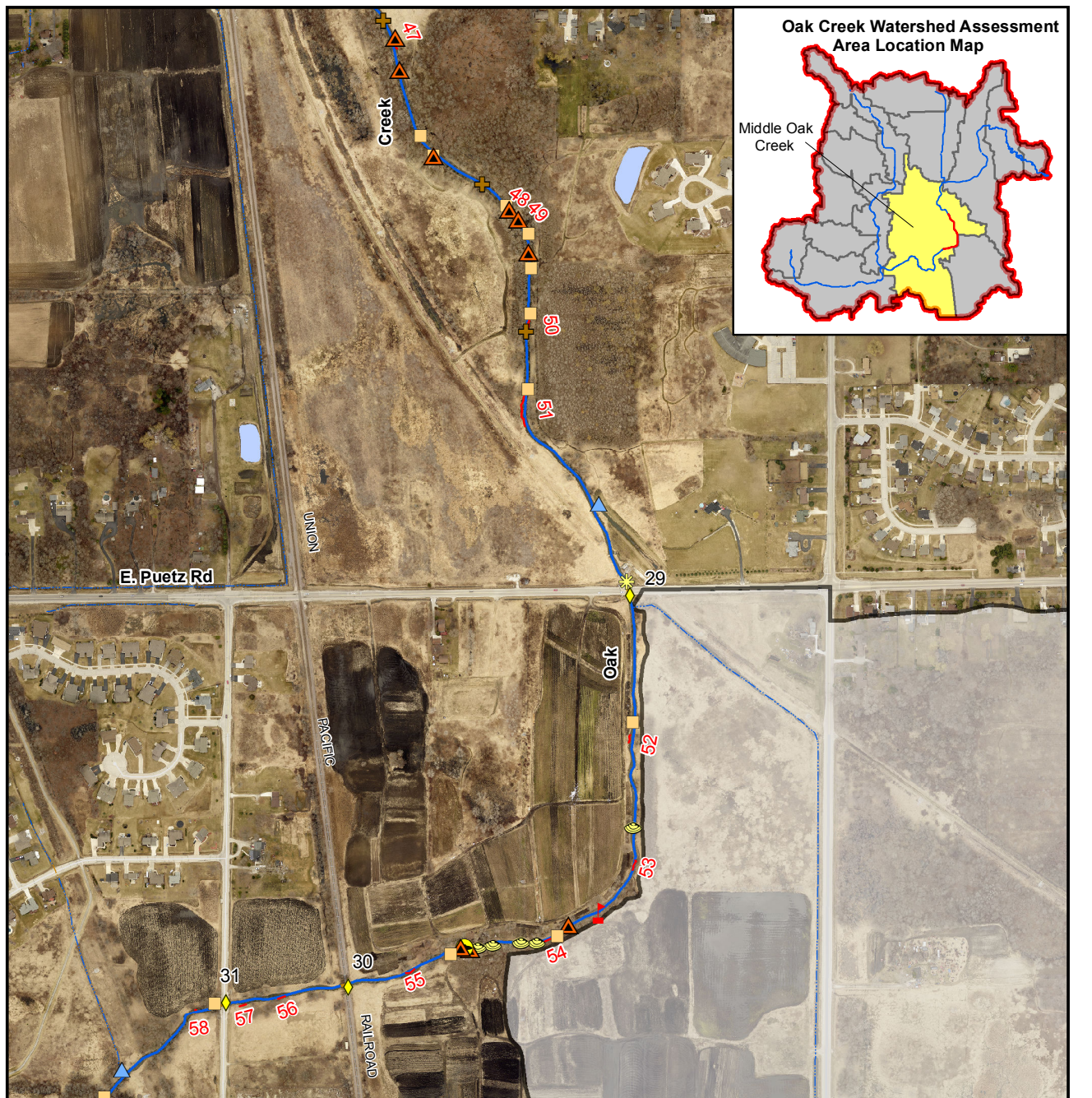
- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ▲ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ✚ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ☼ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



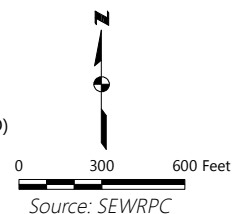


## Map S.20

### Stream Survey Inventory for the Middle Oak Creek Assessment Area (Reach 2)



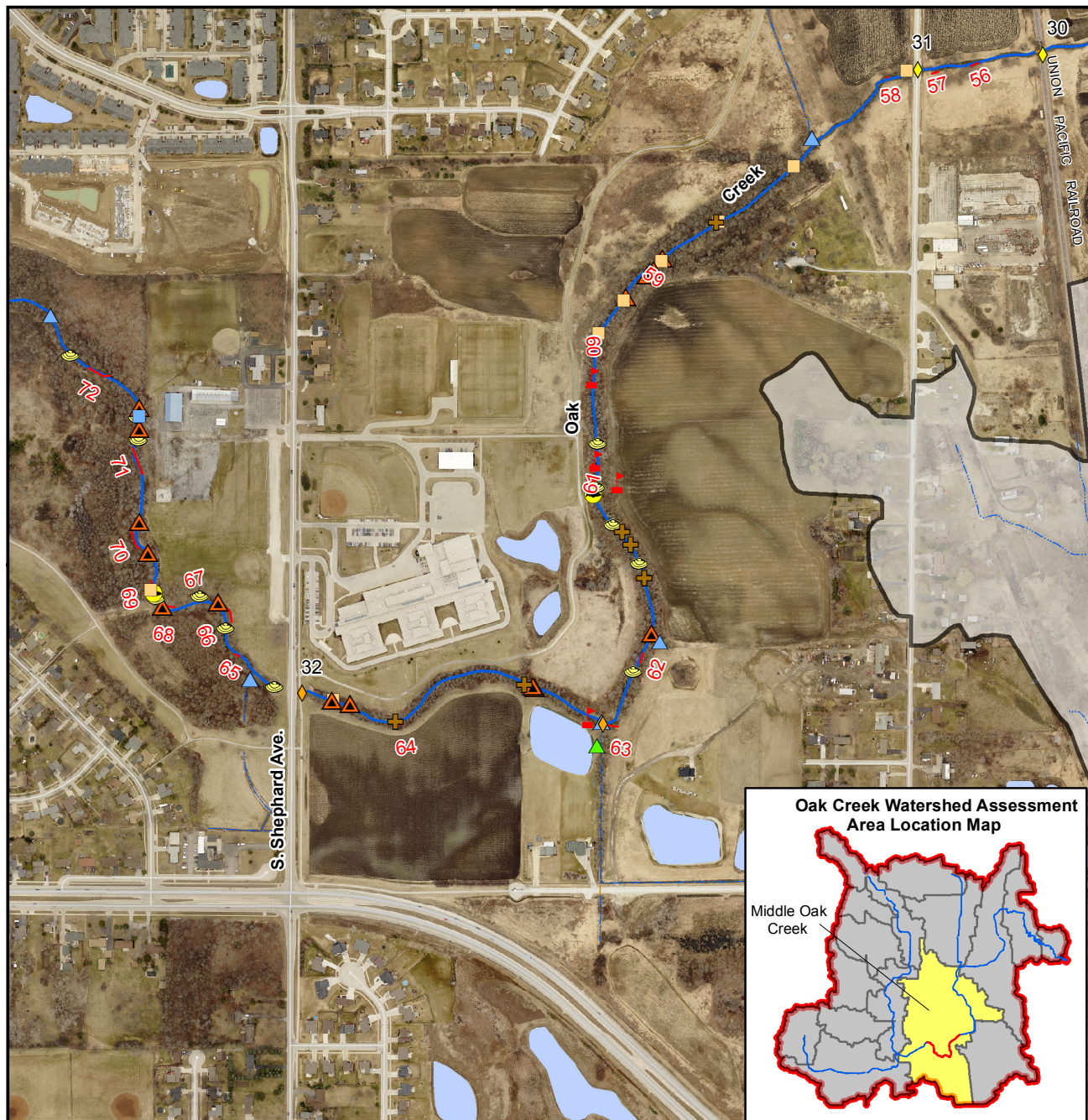
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|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | — MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ✚ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ☼ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



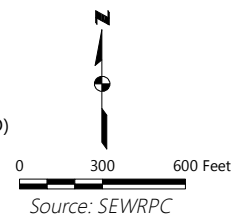


## Map S.21

### Stream Survey Inventory for the Middle Oak Creek Assessment Area (Reach 3)



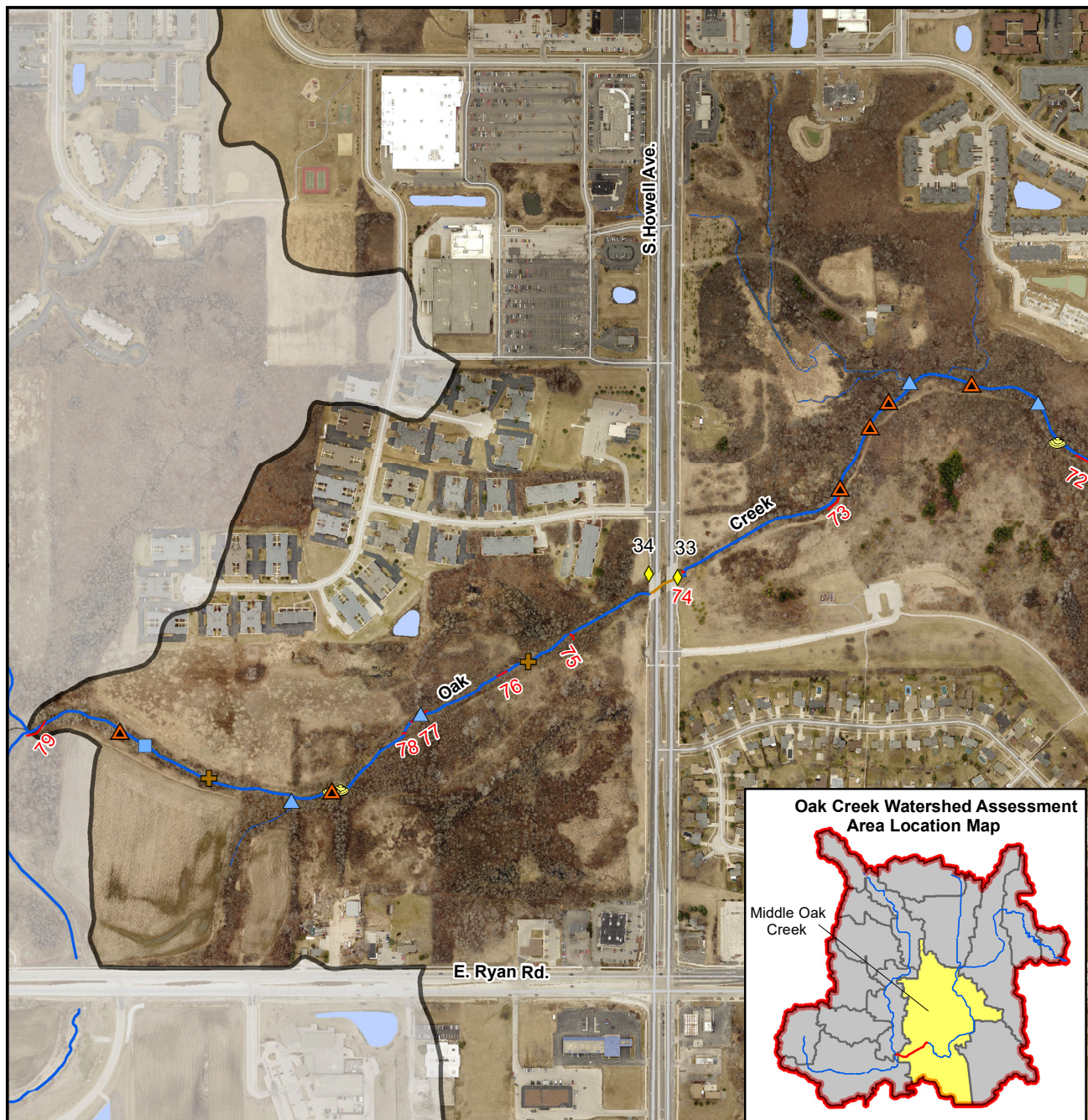
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|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | — MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ✚ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ✳ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



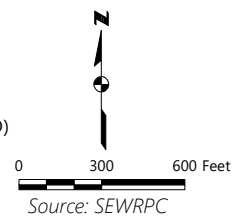


## Map S.22

### Stream Survey Inventory for the Middle Oak Creek Assessment Area (Reach 4)



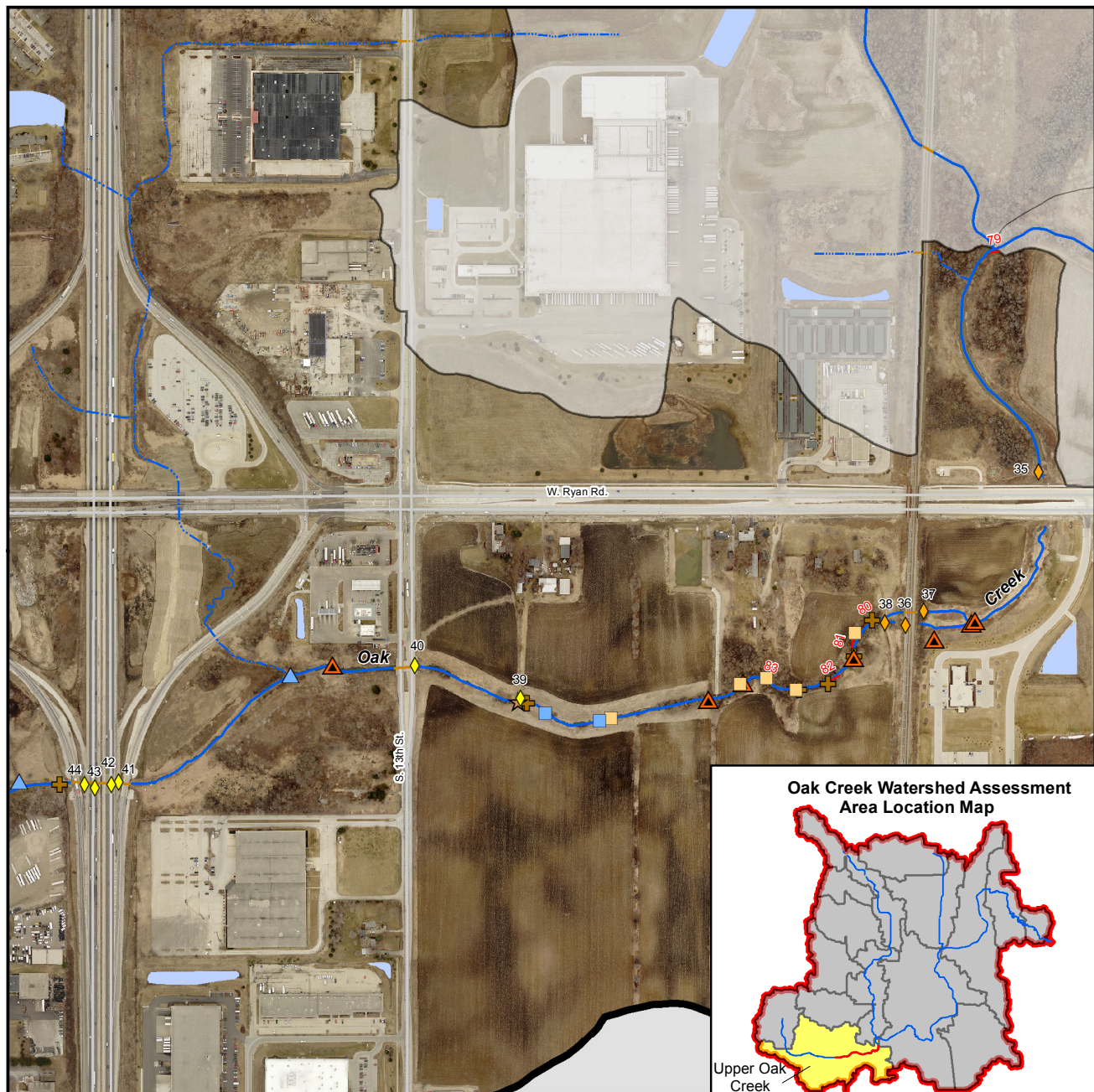
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|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ▲ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ✚ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ✱ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |





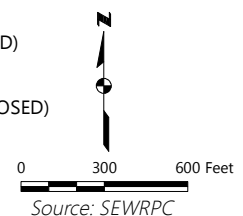
## Map S.23

### Stream Survey Inventory for Upper Oak Creek Assessment Area (Reach 1)



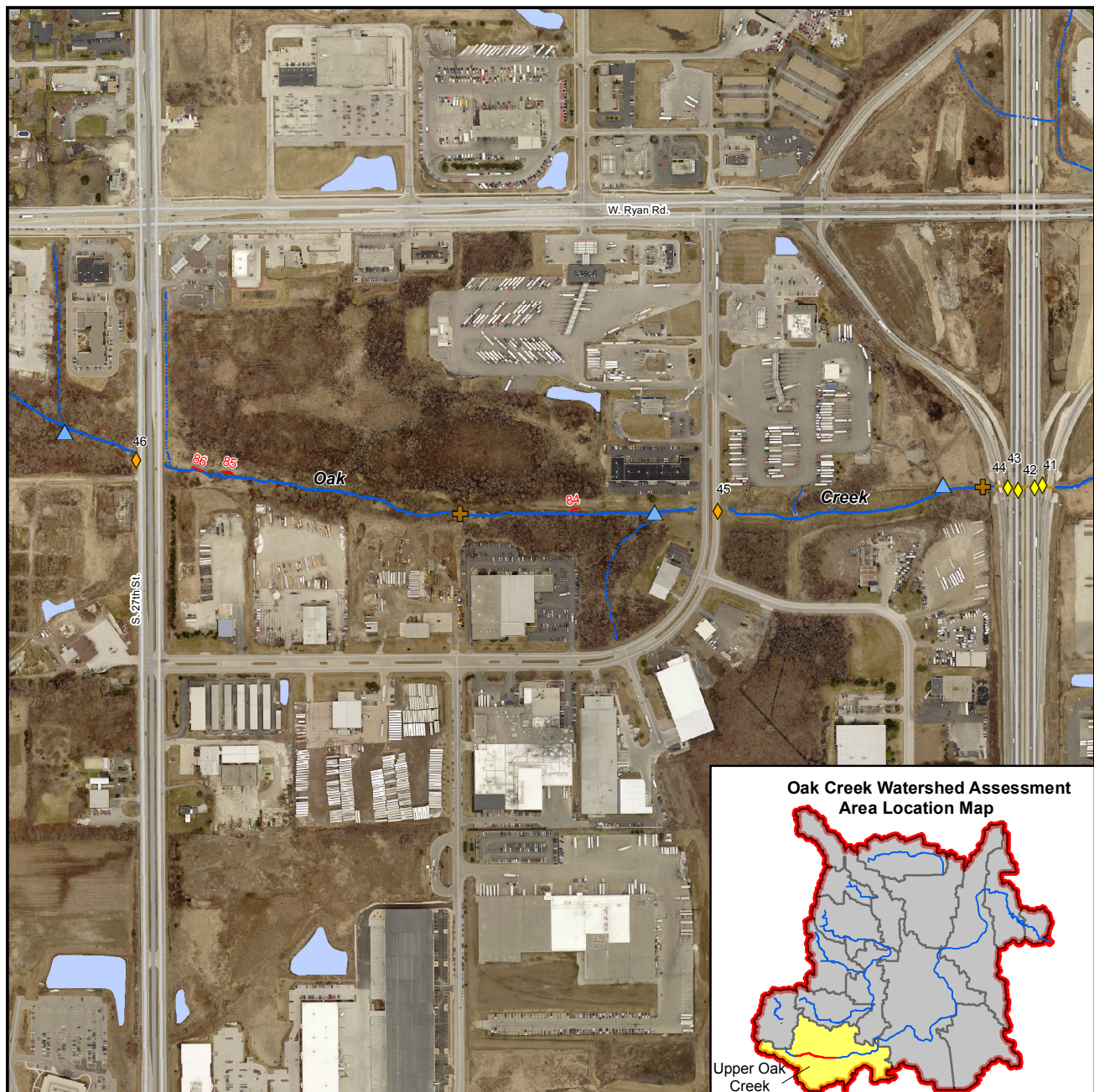
- ◆ BRIDGE
- ◆ CULVERT
- ◆ DAM
- ★ DROP STRUCTURE/WEIR
- ★ ROCK WEIR
- ✚ WOODY DEBRIS JAM
- ✳ BEAVER DAM/ACTIVITY
- ▲ TIBUTARY OR WETLAND DRAINAGE
- ▲ POND OUTLET
- GROUNDWATER SEEPAGE/SPRING
- DRAIN TILE
- POTENTIAL FISH BED OR SPAWNING SITE
- MUSSEL
- STREAMBANK EROSION
- ▢ MINOR BANK, GULLY, OR RILL EROSION
- ▲ TRASH IN STREAM

- ▭ OAK CREEK WATERSHED BOUNDARY
- ▭ ASSESSMENT AREA BOUNDARIES
- PERENNIAL STREAM
- PERENNIAL STREAM (ENCLOSED)
- INTERMITTENT STREAM
- INTERMITTENT STREAM (ENCLOSED)
- SURFACE WATER



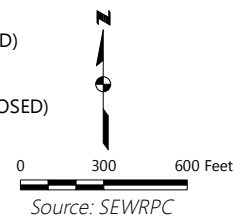


**Map S.24**  
**Stream Survey Inventory for Upper Oak Creek Assessment Area (Reach 2)**



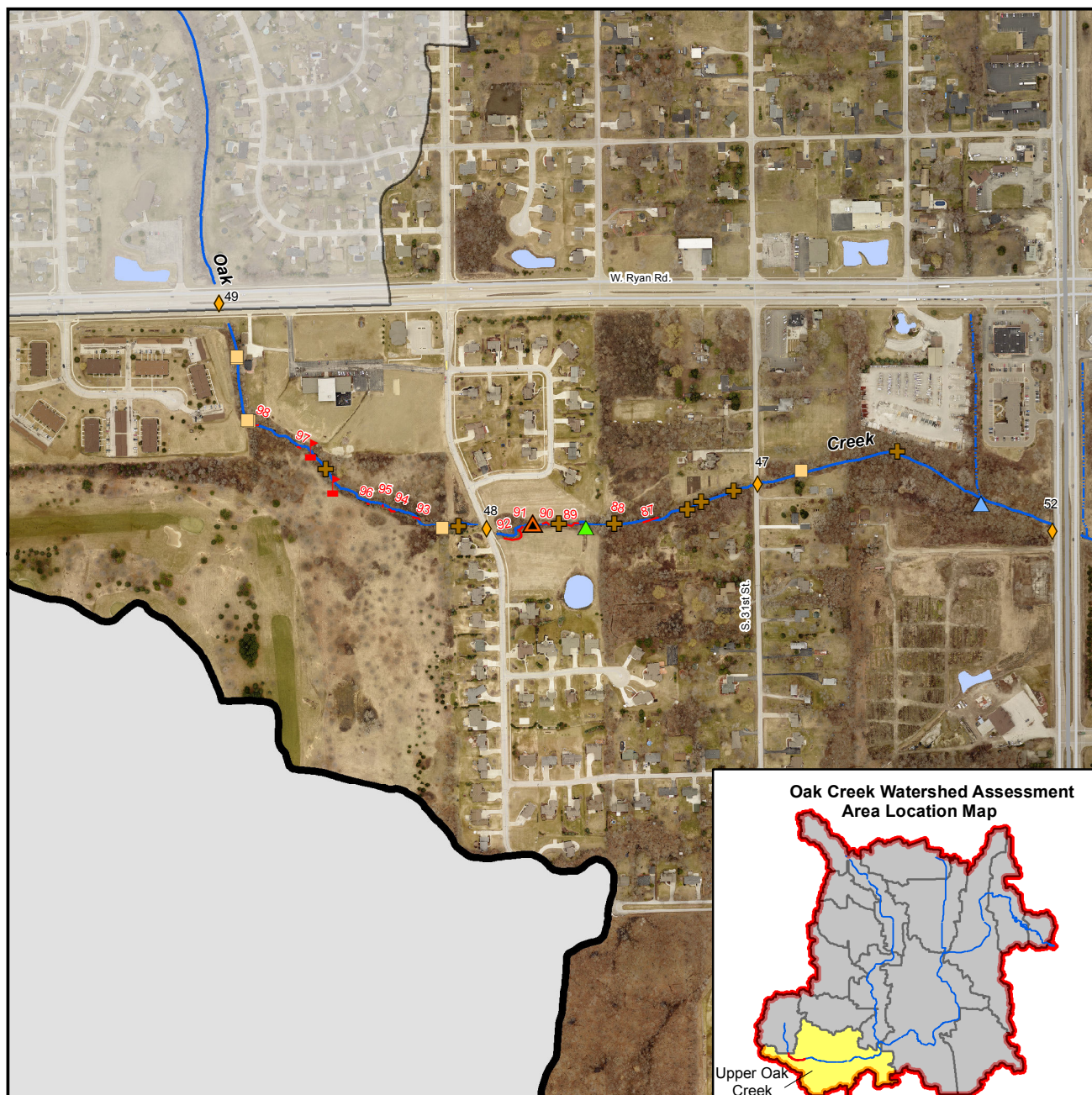
- ◆ BRIDGE
- ◆ CULVERT
- ◆ DAM
- ★ DROP STRUCTURE/WEIR
- ★ ROCK WEIR
- ✚ WOODY DEBRIS JAM
- ✱ BEAVER DAM/ACTIVITY
- ▲ TRIBUTARY OR WETLAND DRAINAGE
- ▲ POND OUTLET
- GROUNDWATER SEEPAGE/SPRING
- DRAIN TILE
- POTENTIAL FISH BED OR SPAWNING SITE
- MUSSEL
- STREAMBANK EROSION
- ▲ MINOR BANK, GULLY, OR RILL EROSION
- ▲ TRASH IN STREAM

- ▬ OAK CREEK WATERSHED BOUNDARY
- ▬ ASSESSMENT AREA BOUNDARIES
- PERENNIAL STREAM
- PERENNIAL STREAM (ENCLOSED)
- INTERMITTENT STREAM
- INTERMITTENT STREAM (ENCLOSED)
- SURFACE WATER

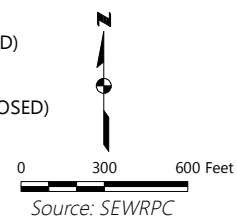




**Map S.25**  
**Stream Survey Inventory for Upper Oak Creek Assessment Area (Reach 3)**



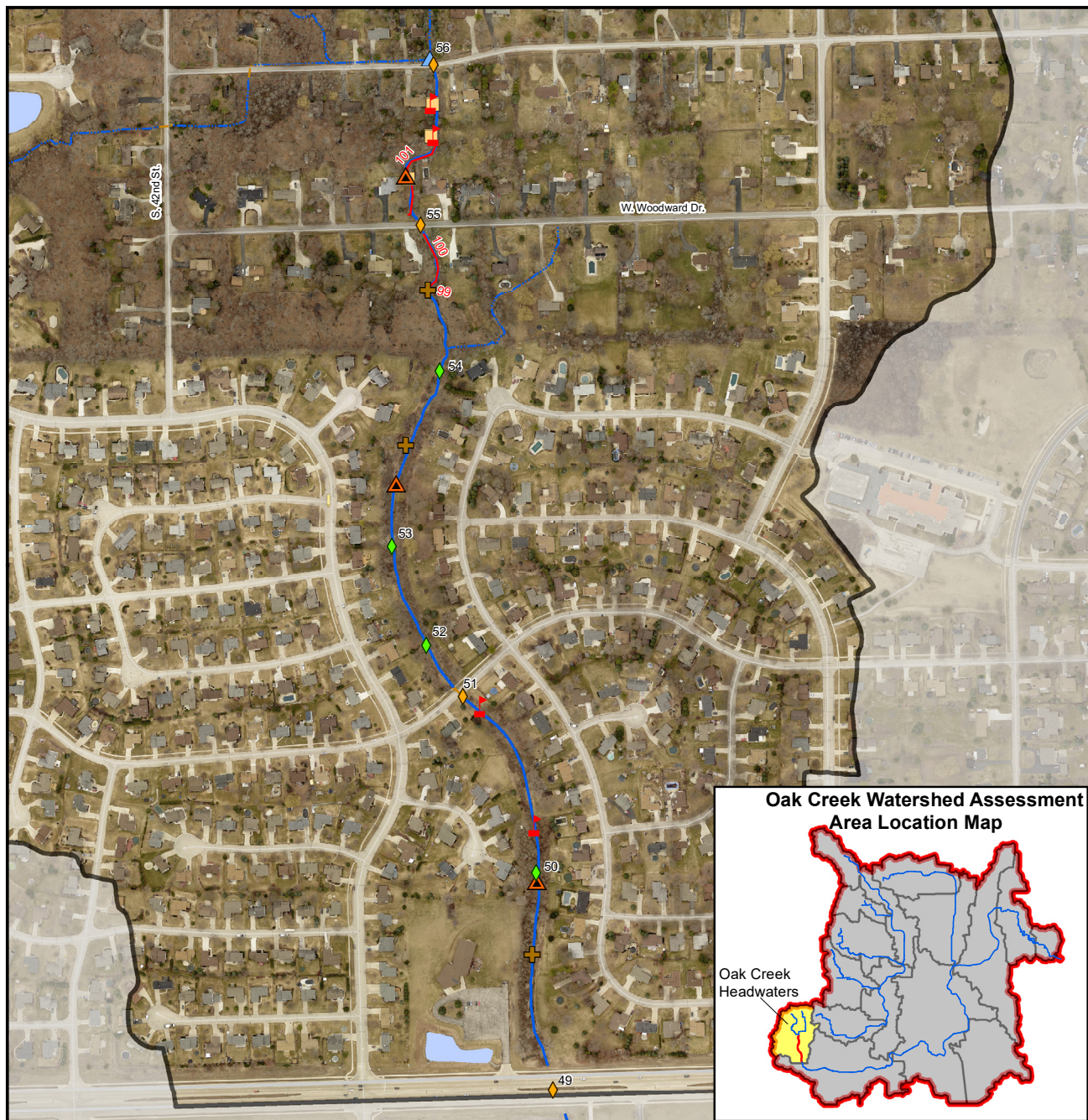
- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ▲ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ✚ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ✚ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



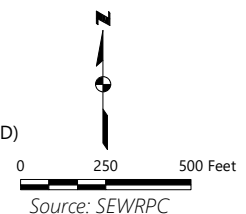


## Map S.26

### Stream Survey Inventory for the Oak Creek Headwaters Assessment Area (Reach 1)



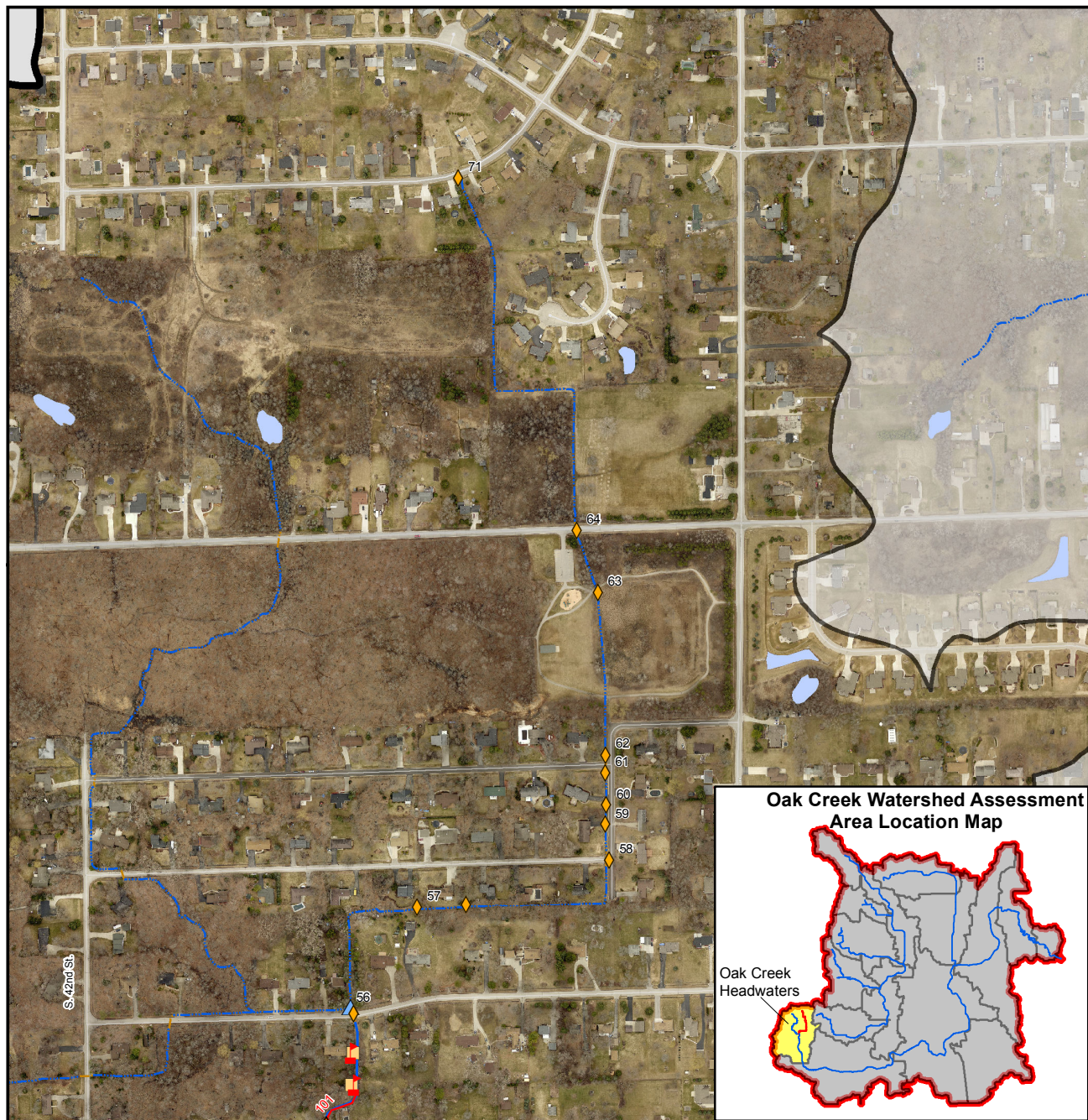
- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ▲ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ✚ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ✚ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



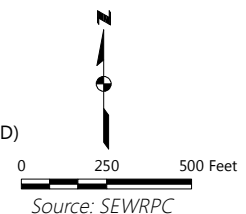


## Map S.27

### Stream Survey Inventory for the Oak Creek Headwaters Assessment Area (Reach 2)



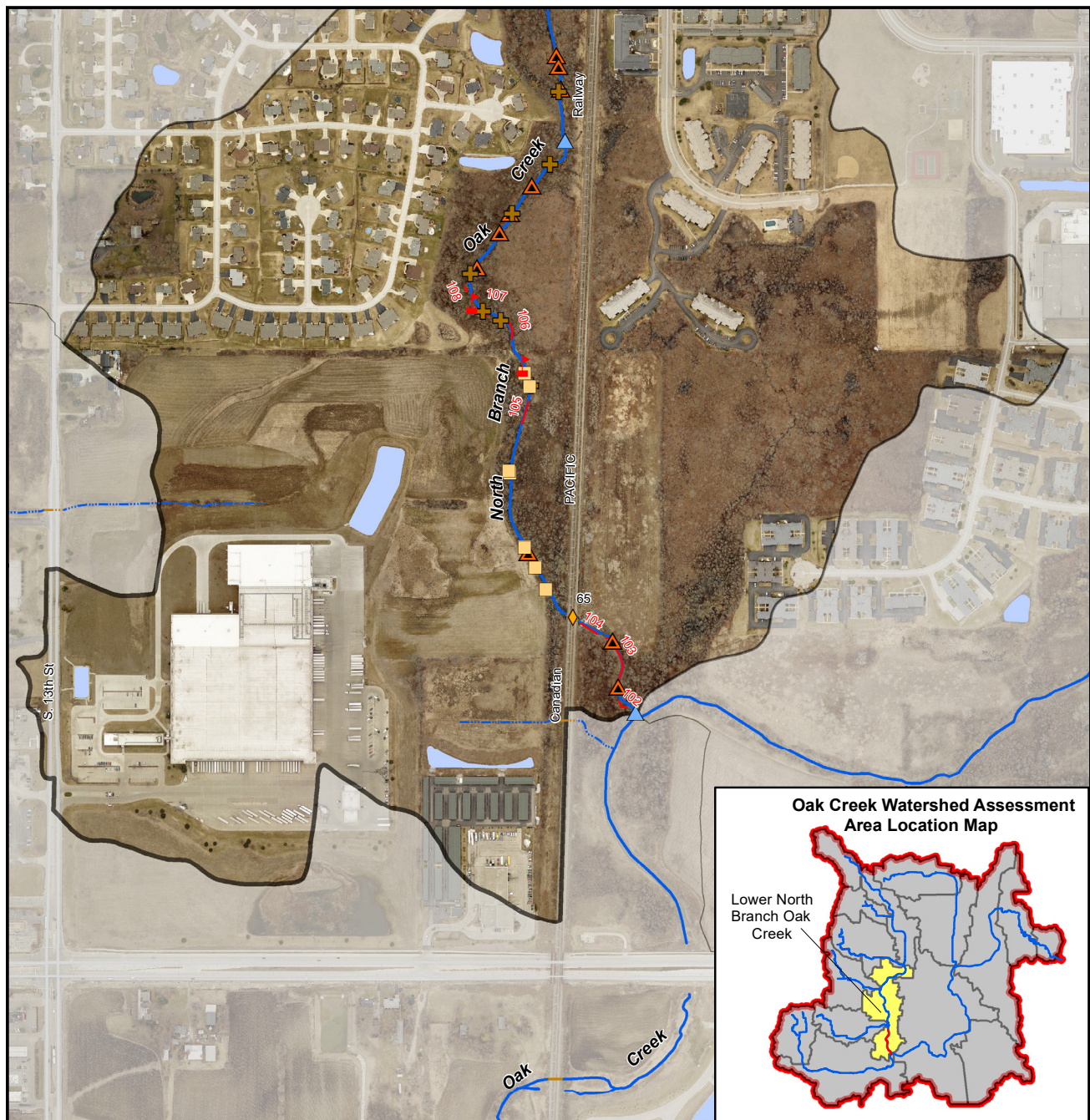
- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | — MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ✚ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ✚ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



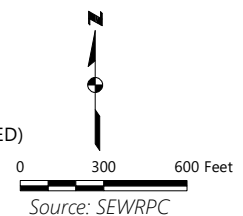


## Map S.28

### Stream Survey Inventory for the Lower North Branch Oak Creek Assessment Area (Reach 1)



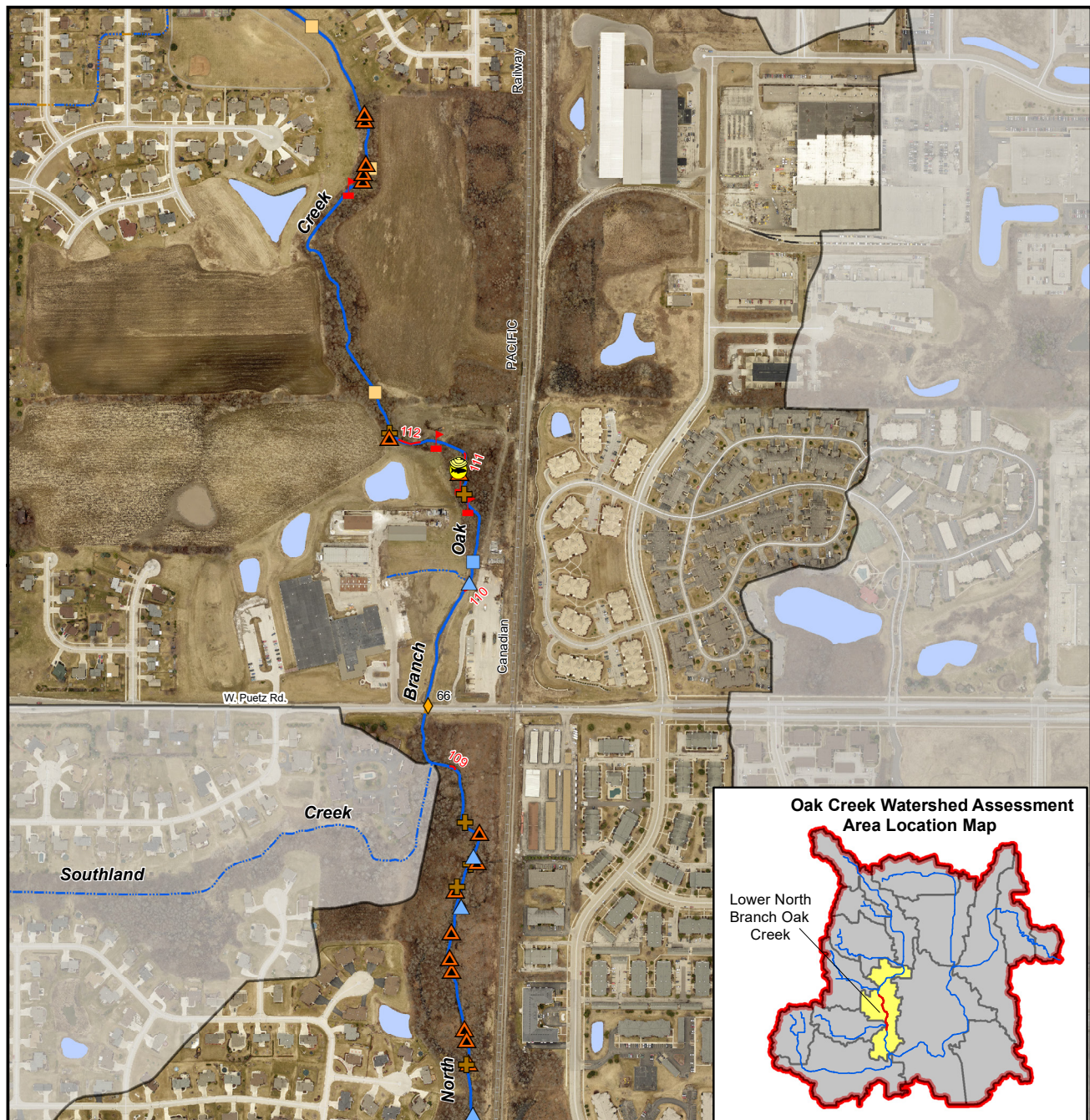
- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▭ OAK CREEK WATERSHED BOUNDARY   |
| ◇ CULVERT                       | ● MUSSEL                              | ▭ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ▲ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ⊕ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ⊙ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



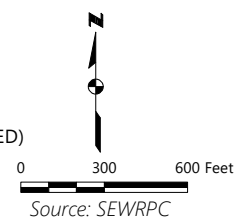


## Map S.29

### Stream Survey Inventory for the Lower North Branch Oak Creek Assessment Area (Reach 2)



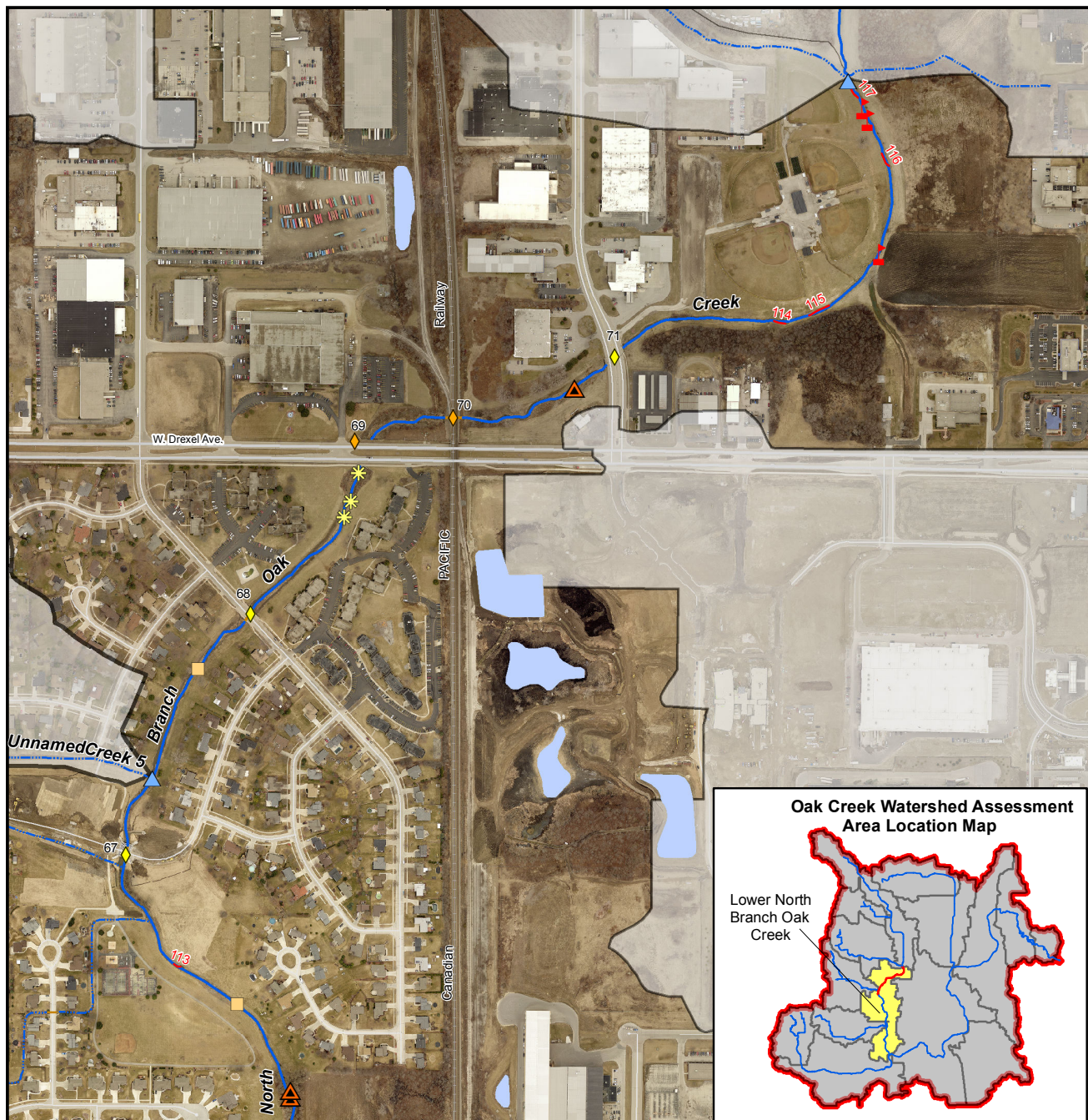
- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | 🐟 POTENTIAL FISH BED OR SPAWNING SITE | ▭ OAK CREEK WATERSHED BOUNDARY   |
| ◇ CULVERT                       | 🐚 MUSSEL                              | ▭ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | 🚧 MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | 🗑️ TRASH IN STREAM                    | — INTERMITTENT STREAM            |
| ⊕ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| 🌿 BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



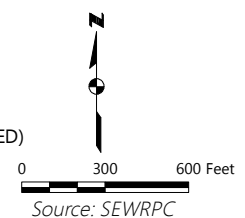


## Map S.30

### Stream Survey Inventory for the Lower North Branch Oak Creek Assessment Area (Reach 3)



- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▭ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▭ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ▲ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ⊕ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ✱ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



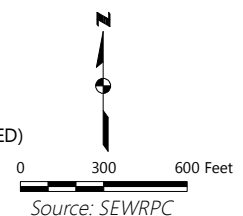


## Map S.31

### Stream Survey Inventory for the Upper North Branch Oak Creek Assessment Area (Reach 1)



- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ⬮ POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ⬮ MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ⬮ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ⬮ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ⬮ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ⬮ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



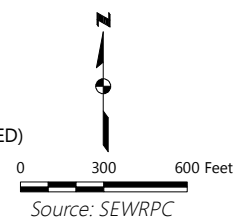


## Map S.32

### Stream Survey Inventory for the Upper North Branch Oak Creek Assessment Area (Reach 2)



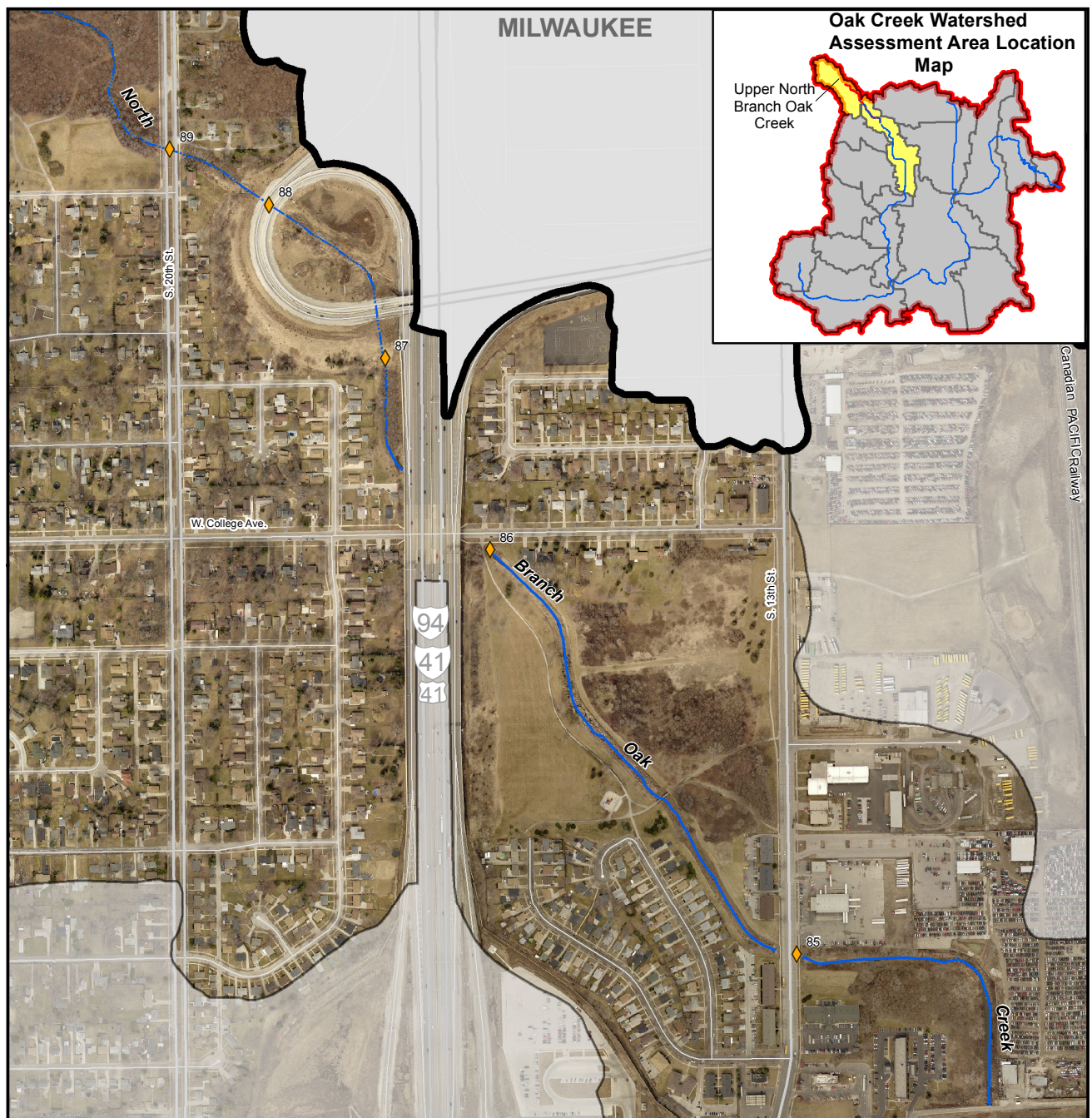
- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ⬮ POTENTIAL FISH BED OR SPAWNING SITE | ▭ OAK CREEK WATERSHED BOUNDARY   |
| ◇ CULVERT                       | ⬮ MUSSEL                              | ▭ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ⬮ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ⬮ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ⬮ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ⬮ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



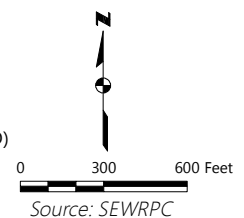


# Map S.33

## Stream Survey Inventory for the Upper North Branch Oak Creek Assessment Area (Reach 3)



- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▬ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▬ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | — MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ⊕ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ⊙ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |



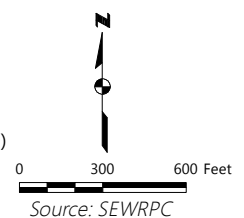


# Map S.34

## Stream Survey Inventory for the Lower Mitchell Field Drainage Ditch Assessment Area (Reach 1)



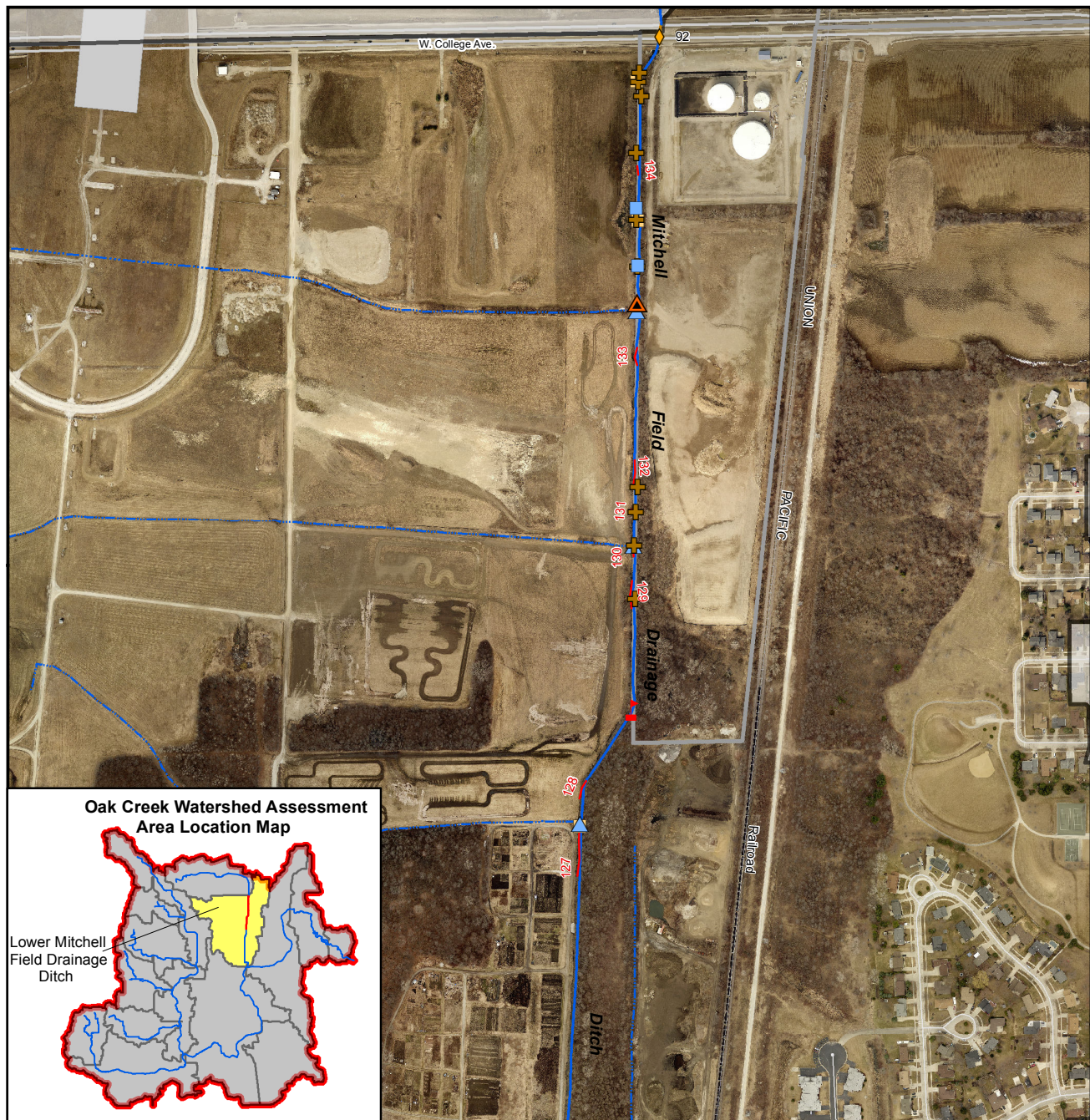
- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ● POTENTIAL FISH BED OR SPAWNING SITE | ▭ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ● MUSSEL                              | ▭ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ▲ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ▲ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ◆ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ◆ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |





## Map S.35

### Stream Survey Inventory for the Lower Mitchell Field Drainage Ditch Assessment Area (Reach 2)



- |                                 |                                       |                                  |
|---------------------------------|---------------------------------------|----------------------------------|
| ◆ BRIDGE                        | ⬮ POTENTIAL FISH BED OR SPAWNING SITE | ▭ OAK CREEK WATERSHED BOUNDARY   |
| ◆ CULVERT                       | ⬮ MUSSEL                              | ▭ ASSESSMENT AREA BOUNDARIES     |
| ◆ DAM                           | — STREAMBANK EROSION                  | — PERENNIAL STREAM               |
| ★ DROP STRUCTURE/WEIR           | ⬮ MINOR BANK, GULLY, OR RILL EROSION  | — PERENNIAL STREAM (ENCLOSED)    |
| ★ ROCK WEIR                     | ⬮ TRASH IN STREAM                     | — INTERMITTENT STREAM            |
| ⬮ WOODY DEBRIS JAM              |                                       | — INTERMITTENT STREAM (ENCLOSED) |
| ⬮ BEAVER DAM/ACTIVITY           |                                       | ■ SURFACE WATER                  |
| ▲ TRIBUTARY OR WETLAND DRAINAGE |                                       |                                  |
| ▲ POND OUTLET                   |                                       |                                  |
| ■ GROUNDWATER SEEPAGE/SPRING    |                                       |                                  |
| ■ DRAIN TILE                    |                                       |                                  |

