

**Goshen Feature: 251 GSH1733**  
 (Properties that contain Features within 125m from Collection lines and 171.5m from Turbines)

September 1, 2011

0 25 50 100 Meters

Roads  
 Access/Collection Line  
 Collection Buffer (125m)  
 Turbine Buffer (171.5m)

Collection/Feature Intersect  
 Turbine Buffer/Feature Intersect  
 Property Fabric  
 Goshen Wind Energy Centre



|                                                       |                    |              |                              |
|-------------------------------------------------------|--------------------|--------------|------------------------------|
| ELC<br>Community<br>Description and<br>Classification | Site: 261_GSH1733  |              | Polygon:                     |
|                                                       | Surveyor(s):<br>JK | Date: Oct 14 | Time start: 14:00<br>finish: |
|                                                       | UTMZ:              | UTMZ: 450375 | UTMN: 1794220                |

## Polygon Description

| System                                  | Substrate                             | Topographic Feature                              | Plant Form                                    | Community                                  |
|-----------------------------------------|---------------------------------------|--------------------------------------------------|-----------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Terrestrial    | <input type="checkbox"/> Organic      | <input type="checkbox"/> Lacustrine              | <input type="checkbox"/> Plankton             | <input type="checkbox"/> Lake              |
| <input type="checkbox"/> Wetland        | <input type="checkbox"/> Mineral Soil | <input type="checkbox"/> Riverine                | <input type="checkbox"/> Submerged            | <input type="checkbox"/> Pond              |
| <input type="checkbox"/> Aquatic        | <input type="checkbox"/> Parent Min.  | <input type="checkbox"/> Bottomland              | <input type="checkbox"/> Floating-LVD.        | <input type="checkbox"/> River             |
| <input type="checkbox"/> <u>Silt</u>    | <input type="checkbox"/> Acidic Bedrk | <input type="checkbox"/> Terrace                 | <input type="checkbox"/> Graminoid            | <input type="checkbox"/> Stream            |
| <input type="checkbox"/> Open Water     | <input type="checkbox"/> Basic Bedrk  | <input type="checkbox"/> Valley Slope            | <input type="checkbox"/> Forb                 | <input type="checkbox"/> Marsh             |
| <input type="checkbox"/> Shallow Water  | <input type="checkbox"/> Carb. Bedrk  | <input type="checkbox"/> Tableland               | <input type="checkbox"/> Lichen               | <input type="checkbox"/> Swamp             |
| <input type="checkbox"/> Surficial Dep. |                                       | <input checked="" type="checkbox"/> Roll, Upland | <input type="checkbox"/> Bryophyte            | <input type="checkbox"/> Fen               |
| <input type="checkbox"/> Bedrock        |                                       | <input type="checkbox"/> Cliff <i>pointy</i>     | <input checked="" type="checkbox"/> Deciduous | <input type="checkbox"/> Bog               |
| <input type="checkbox"/> <u>History</u> |                                       | <input type="checkbox"/> Talus                   | <input type="checkbox"/> Coniferous           | <input type="checkbox"/> Barren            |
| <input type="checkbox"/> Natural        |                                       | <input type="checkbox"/> Crevice/Cave            | <input type="checkbox"/> Mixed                | <input type="checkbox"/> Meadow            |
| <input type="checkbox"/> Cultural       |                                       | <input type="checkbox"/> Alvar                   |                                               | <input type="checkbox"/> Prairie           |
| <input type="checkbox"/> <u>Cover</u>   |                                       | <input type="checkbox"/> Rockland                |                                               | <input type="checkbox"/> Thicket           |
| <input type="checkbox"/> Open           |                                       | <input type="checkbox"/> Beach / Bar             |                                               | <input type="checkbox"/> Savannah          |
| <input type="checkbox"/> Shrub          |                                       | <input type="checkbox"/> Sand Dune               |                                               | <input type="checkbox"/> Woodland          |
| <input type="checkbox"/> Treed          |                                       | <input type="checkbox"/> Bluff                   |                                               | <input checked="" type="checkbox"/> Forest |
|                                         |                                       |                                                  |                                               | <input type="checkbox"/> Plantation        |

### Stand Description

| Layer: | HT  | CVR | Species in Order of Decreasing Dominance (up to 4 sp)<br>(> Much Greater Than; > Greater Than; = About Equal To) |
|--------|-----|-----|------------------------------------------------------------------------------------------------------------------|
| 1      | 1/2 | 4   | Fragaria > Tillamook > Fragaria - Aca                                                                            |
| 2      | MJ  | 3   | Aca > Fragaria > Ost v                                                                                           |
| 3      |     |     |                                                                                                                  |
| 4      |     | 2   | Fragaria, Rhubarb, Self                                                                                          |

HT Codes: 7 <0.2m 8 0.2-0.5m 9 0.5-1m 4 >1-2m 3 >2-8m 1 >25m  
CVR Codes: 0 = none 1 0% - 10% 2 10% - 25% 3 25% - 60% 4 >60% 2 >6-25m

| BA | Stand Composition: | Size Class Analysis: |                 |                 |   |       |   |       |     |
|----|--------------------|----------------------|-----------------|-----------------|---|-------|---|-------|-----|
|    |                    |                      | Standing Snags: | Deadfall / Lost |   |       |   |       |     |
|    |                    |                      | A               | <10             | A | 10-24 | A | 25-50 | >50 |
|    |                    |                      |                 | <10             |   | 10-24 |   | 25-50 | >50 |
|    |                    |                      | A               | <10             | A | 10-24 |   | 25-50 | >50 |

**Abundance Codes:** N = None R = Rare O = Occasional A = Abundant

| Calm, Age: | <input type="checkbox"/> Pioneer | <input type="checkbox"/> Young | <input type="checkbox"/> Mid-Age | <input checked="" type="checkbox"/> Mature | <input type="checkbox"/> Old Growth |
|------------|----------------------------------|--------------------------------|----------------------------------|--------------------------------------------|-------------------------------------|
|            |                                  |                                |                                  |                                            |                                     |

|             |  |       |  |
|-------------|--|-------|--|
| EcoSite:    |  | Code: |  |
| Vegetation  |  | Code: |  |
| Type:       |  | Code: |  |
| libulation: |  | Code: |  |
| Complete:   |  | Code: |  |

## Community Profile Diagram/Comments

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |
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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 5 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|

## Tree Tally by Species

[illegible]

### Soils Ontario and ELC Soils Description

| Site Metrics             |                      | Pth/Auger #     |      |      |      |      |      |      | Summary                            |
|--------------------------|----------------------|-----------------|------|------|------|------|------|------|------------------------------------|
| Soil Horizon Description | UTM                  | Zone            |      |      |      |      |      |      | Moisture Regime                    |
|                          |                      | Easting         |      |      |      |      |      |      |                                    |
|                          | Slope                | Northing        |      |      |      |      |      |      | Drainage                           |
|                          |                      | Position        |      |      |      |      |      |      |                                    |
|                          |                      | Aspect          |      |      |      |      |      |      |                                    |
|                          |                      | Percent         |      |      |      |      |      |      |                                    |
|                          |                      | Slope           |      |      |      |      |      |      | Effective Texture (Indicate below) |
|                          |                      | Length          |      |      |      |      |      |      |                                    |
|                          | Depth to ...         | Mottles         |      |      |      |      |      |      | % CF                               |
|                          |                      | Gley            |      |      |      |      |      |      |                                    |
|                          | Water Table          |                 |      |      |      |      |      | % CF |                                    |
|                          |                      |                 |      |      |      |      |      |      |                                    |
|                          | Carbonates           |                 |      |      |      |      |      | % CF |                                    |
|                          |                      |                 |      |      |      |      |      |      |                                    |
|                          | Bedrock              |                 |      |      |      |      |      | % CF |                                    |
|                          |                      |                 |      |      |      |      |      |      |                                    |
|                          | 1                    | Depth from zero |      | % CF |      | % CF |      | % CF |                                    |
|                          |                      | Texture         |      |      |      |      |      |      |                                    |
|                          | 2                    | Depth from zero |      | % CF |      | % CF |      | % CF |                                    |
|                          |                      | Texture         |      |      |      |      |      |      |                                    |
| 3                        | Depth from zero      |                 | % CF |      | % CF |      | % CF |      |                                    |
|                          | Texture              |                 |      |      |      |      |      |      |                                    |
| 4                        | Depth from zero      |                 | % CF |      | % CF |      | % CF |      |                                    |
|                          | Texture              |                 |      |      |      |      |      |      |                                    |
|                          | % Surface Stone/Rock |                 |      |      |      |      |      |      |                                    |
|                          | Moisture Regime      |                 |      |      |      |      |      |      |                                    |
|                          | Drainage             |                 |      |      |      |      |      |      |                                    |

⑤ Sugar Maple - Black Cherry -

UTH 450390  
4794120

2-4 Acesacn > Prusero

3-4 Acesacn.

4-2 Rubidae

6-2 Eucobov > Crxgrac

Veg Type FOD 5-7

|        |        |        |        |
|--------|--------|--------|--------|
| Stand. | A < 10 | A < 25 | R < 50 |
| Swag   | R      | R      |        |
| devel  | A      | A      | R 25   |

⑥ Sugar Maple

UTH - 450420  
4794185

2-4 Acesacn >> Carcord

3-4 Acesacn

6-3 Eucobov > Allpeti

mature

Veg Type FOD 5-1

⑦ Basswood

UTH 450410  
4794250

2-4 Tilamer > Ulmamer >> Fraamer.

3-3 Ulmamer > Acesacn.

4-3 Acesacn >> Pruvig

6-4 Astlare - Rhuvadi - Genurbs

Veg Type FOD 46  
midday to mature irregular canopy

|       |        |        |        |
|-------|--------|--------|--------|
| Stand | A < 10 | A < 25 | 0 < 50 |
| Shen  | R      | R      | 0      |
| clend | 1      | 1      | 0      |



Location:  
Observer:

Date: Oct 14 / 2001

**Job Number:**[illegible]

## SITE LOCATIONS

- 1: \_\_\_\_\_
- 2: \_\_\_\_\_
- 3: \_\_\_\_\_

| CONIFERS               | 1 | 2 | 3 | 4 | 5 | 6 | TREES and SHRUBS            | 1 | 2 | 3 | 4 | 5 | 6 | GRAMINOIDS               | 1 | 2 | 3 | 4 | 5 | 6 |
|------------------------|---|---|---|---|---|---|-----------------------------|---|---|---|---|---|---|--------------------------|---|---|---|---|---|---|
| Abies balsamea         |   |   |   |   |   |   | + Rosa multiflora           |   |   |   |   |   |   | Agrostis gigantea        |   |   |   |   |   |   |
| Juniperus communis     |   |   |   |   |   |   | Rosa                        |   |   |   |   |   |   | Agrostis stolonifera     |   |   |   |   |   |   |
| Juniperus virginiana   |   |   |   |   |   |   | Rubus allegheniensis        |   |   |   |   |   |   | Agropyron repens         |   |   |   |   |   |   |
| Larix laricina         |   |   |   |   |   |   | Rubus idaeus                |   | X |   |   |   |   | Alopecurus               |   |   |   |   |   |   |
| Picea abies            |   |   |   |   |   |   | Rubus occidentalis          |   |   |   |   |   |   | Bromus horreus           |   |   |   |   |   |   |
| Picea glauca           |   |   |   |   |   |   | Rubus odoratus              |   |   |   |   |   |   | Calamagrostis canadensis |   |   |   |   |   |   |
| Pinus resinosa         |   |   |   |   |   |   | Rubus prinoscent            |   |   |   |   |   |   | Carex acutata            |   |   |   |   |   |   |
| Pinus strobus          |   |   |   |   |   |   | Salix alba                  |   |   |   |   |   |   | Carex aurea              |   |   |   |   |   |   |
| Pinus sylvestris       |   |   |   |   |   |   | Salix amygdaloides          |   |   |   |   |   |   | Carex bebbii             |   |   |   |   |   |   |
| Theja occidentalis     |   |   |   |   |   |   | Salix babingtonii           |   |   |   |   |   |   | Carex blanda             |   |   |   |   |   |   |
| Taxus canadensis       |   |   |   |   |   |   | + Salix discolor            |   |   |   |   |   |   | Carex gracilima          |   |   |   |   |   |   |
|                        |   |   |   |   |   |   | Salix eriocephala           |   |   |   |   |   |   | Carex graminea           |   |   |   |   |   |   |
|                        |   |   |   |   |   |   | Salix exigua                |   |   |   |   |   |   | Carex hystericaria       |   |   |   |   |   |   |
|                        |   |   |   |   |   |   | Salix lucida                |   |   |   |   |   |   | Carex pennsylvanica      |   |   |   |   |   |   |
|                        |   |   |   |   |   |   | Salix petiolaris            |   |   |   |   |   |   | Carex radiata            |   |   |   |   |   |   |
| TREES and SHRUBS       |   |   |   |   |   |   | + Salix purpurea            |   |   |   |   |   |   | Carex retrofracta        |   |   |   |   |   |   |
| Acer negundo           |   |   |   |   |   |   | Salix x rubra               |   |   |   |   |   |   | Carex stipitata          |   |   |   |   |   |   |
| Acer rubrum            |   |   |   |   |   |   | + Salix                     |   |   |   |   |   |   | Carex stricta            |   |   |   |   |   |   |
| Acer saccharinum       |   |   |   |   |   |   | Sambucus canadensis         |   |   |   |   |   |   | Carex vulpinoidea        |   |   |   |   |   |   |
| Acer saccharum         |   | X |   |   |   |   | Sambucus racemosa           |   |   |   |   |   |   | Carex                    |   |   |   |   |   |   |
| Acer spicatum          |   |   |   |   |   |   | Sorbus aucuparia            |   |   |   |   |   |   | Carex                    |   |   |   |   |   |   |
| Alnus rugosa           |   |   |   |   |   |   | Spiraea alba                |   |   |   |   |   |   | Carex                    |   |   |   |   |   |   |
| Ametanochlor           |   |   |   |   |   |   | Syringa vulgaris            |   |   |   |   |   |   | Carex                    |   |   |   |   |   |   |
| Berberis thunbergii    |   |   |   |   |   |   | + Tilia americana           |   | X |   |   |   |   | Carex                    |   |   |   |   |   |   |
| Betula alleghaniensis  |   |   |   |   |   |   | Ulmus americana             |   | X |   |   |   |   | Carex                    |   |   |   |   |   |   |
| Betula papyrifera      |   |   |   |   |   |   | Ulmus                       |   |   |   |   |   |   | Carex                    |   |   |   |   |   |   |
| Carpinus caroliniana   |   | X |   |   |   |   | Vaccinium                   |   |   |   |   |   |   | Carex                    |   |   |   |   |   |   |
| Carya cordiformis      |   | X |   |   |   |   | Viburnum lentago            |   |   |   |   |   |   | Cyperus                  |   |   |   |   |   |   |
| Celastrus scandens     |   |   |   |   |   |   | Viburnum opulus             |   |   |   |   |   |   | Cyperus                  |   |   |   |   |   |   |
| Cornus alternifolia    |   |   |   |   |   |   | Viburnum                    |   |   |   |   |   |   | Dactylis glomerata       |   |   |   |   |   |   |
| Cornus amomum          |   |   |   |   |   |   | Vitis riparia               |   | X |   |   |   |   | Danthonia spicata        |   |   |   |   |   |   |
| Cornus rugosa          |   | X |   |   |   |   |                             |   |   |   |   |   |   | Echinochloa crus-galli   |   |   |   |   |   |   |
| Cornus stolonifera     |   |   |   |   |   |   |                             |   |   |   |   |   |   | Elaeagnus erythrogona    |   |   |   |   |   |   |
| Corylus cornuta        |   |   |   |   |   |   |                             |   |   |   |   |   |   | Elaeagnus                |   |   |   |   |   |   |
| Crataegus microgynis   |   |   |   |   |   |   |                             |   |   |   |   |   |   | Elymus virginicus        |   |   |   |   |   |   |
| Crataegus punctata     |   |   |   |   |   |   |                             |   |   |   |   |   |   | Elymus                   |   |   |   |   |   |   |
| Crataegus sp.          |   | X |   |   |   |   |                             |   |   |   |   |   |   | Festuca arundinacea      |   |   |   |   |   |   |
| Crataegus              |   |   |   |   |   |   |                             |   |   |   |   |   |   | Glyceria striata         |   | X |   |   |   |   |
| Diervilla lonicera     |   |   |   |   |   |   |                             |   |   |   |   |   |   | Glyceria                 |   |   |   |   |   |   |
| Fagus grandifolia      |   | X |   |   |   |   |                             |   |   |   |   |   |   | Juncus dudleyi           |   |   |   |   |   |   |
| Fraxinus americana     |   |   |   |   |   |   |                             |   |   |   |   |   |   | Juncus effusus           |   |   |   |   |   |   |
| Fraxinus nigra         |   | X |   |   |   |   | FERNS                       |   |   |   |   |   |   | Juncus tenuis            |   |   |   |   |   |   |
| Fraxinus pennsylvanica |   |   |   |   |   |   | Adiantum pedatum            |   |   |   |   |   |   | Juncus                   |   |   |   |   |   |   |
| Ilex verticillata      |   |   |   |   |   |   | Athyrium filix-femina       |   |   |   |   |   |   | Juncus                   |   |   |   |   |   |   |
| Juglans cinerea        |   |   |   |   |   |   | Botrychium multifidum       |   |   |   |   |   |   | Juncus                   |   |   |   |   |   |   |
| Juglans nigra          |   |   |   |   |   |   | Botrychium virginianum      |   |   |   |   |   |   | Leersia oryzoides        |   |   |   |   |   |   |
| Lonicera macrocarpa    |   |   |   |   |   |   | Cystopteris bulbifera       |   |   |   |   |   |   | Muhlenbergia             |   |   |   |   |   |   |
| Lonicera tatarica      |   |   |   |   |   |   | Dryopteris caudata          |   |   |   |   |   |   | Oryzopsis asperifolia    |   |   |   |   |   |   |
| Lonicera               |   |   |   |   |   |   | Dryopteris cristata         |   |   |   |   |   |   | Panicum                  |   |   |   |   |   |   |
| Malus pennsylvanica    |   |   |   |   |   |   | Dryopteris marginalis       |   |   |   |   |   |   | Panicum                  |   |   |   |   |   |   |
| Ostrya virginiana      |   | X |   |   |   |   | Eryopteris                  |   |   |   |   |   |   | Plantago transmarina     |   |   |   |   |   |   |
| Parthenocissus vitacea |   |   |   |   |   |   | Equisetum arvense           |   |   |   |   |   |   | Polygonum pratenae       |   |   |   |   |   |   |
| Populus balsamifera    |   |   |   |   |   |   | Equisetum hyemale           |   |   |   |   |   |   | Polygonum australe       |   |   |   |   |   |   |
| Populus grandidentata  |   |   |   |   |   |   | Equisetum variegatum        |   |   |   |   |   |   | Poa compressa            |   |   |   |   |   |   |
| Populus tremuloides    |   | X |   |   |   |   | Equisetum                   |   |   |   |   |   |   | Poa pratensis            |   |   |   |   |   |   |
| Populus deltoides      |   | X |   |   |   |   | Gymnocarpium dryopteris     |   |   |   |   |   |   | Poa                      |   |   |   |   |   |   |
| Prunus pennsylvanica   |   |   |   |   |   |   | Lycopodium digitatum        |   |   |   |   |   |   | Scirpus atrovirens       |   |   |   |   |   |   |
| Prunus serotina        |   | X |   |   |   |   | Lycopodium obscurum         |   |   |   |   |   |   | Scirpus cyperinus        |   |   |   |   |   |   |
| Prunus virginiana      |   | X |   |   |   |   | Lycopodium                  |   |   |   |   |   |   | Scirpus validus          |   |   |   |   |   |   |
| Prunus                 |   |   |   |   |   |   | Lycopodium                  |   |   |   |   |   |   | Scirpus                  |   |   |   |   |   |   |
| Quercus macrocarpa     |   | X |   |   |   |   | Muhlenbergia struthiopteris |   |   |   |   |   |   | Scirpus                  |   |   |   |   |   |   |
| Quercus rubra          |   |   |   |   |   |   | Osmunda cinnamomea          |   |   |   |   |   |   | Setaria                  |   |   |   |   |   |   |
| Quercus                |   |   |   |   |   |   | Osmunda regalis             |   |   |   |   |   |   | Sporobolus               |   |   |   |   |   |   |
| Rhamnus cathartica     |   | X |   |   |   |   | Polygonum aviculare         |   |   |   |   |   |   | Typa angustifolia        |   |   |   |   |   |   |
| Rhus indicans          |   | X |   |   |   |   | Polygonum aviculare         |   | X |   |   |   |   | Typa latifolia           |   |   |   |   |   |   |
| Rhus typhina           |   |   |   |   |   |   | Pteridium aquilinum         |   |   |   |   |   |   | Typa x glauca            |   |   |   |   |   |   |
| Ribes americana        |   |   |   |   |   |   | Thelypteris palustris       |   |   |   |   |   |   |                          |   |   |   |   |   |   |
| Ribes cynosbati        |   |   |   |   |   |   |                             |   |   |   |   |   |   |                          |   |   |   |   |   |   |
| Ribes x rubrum         |   | X |   |   |   |   |                             |   |   |   |   |   |   |                          |   |   |   |   |   |   |
| Robinia pseudo-acacia  |   |   |   |   |   |   |                             |   |   |   |   |   |   |                          |   |   |   |   |   |   |
| Eucalyptus             |   | X |   |   |   |   |                             |   |   |   |   |   |   |                          |   |   |   |   |   |   |
| Pyrus communis         |   | X |   |   |   |   |                             |   |   |   |   |   |   |                          |   |   |   |   |   |   |
| Ichneumon              |   |   |   |   |   |   |                             |   |   |   |   |   |   |                          |   |   |   |   |   |   |



- Legend**
- Property Boundary
  - GE Turbine
  - ELC Completed 2011
  - Natural Feature and ID
  - ELC Polygon Boundary
  - Disturbance Areas
  - Area of Disturbance, plus 10m
  - ANSI
  - Evaluated Wetlands - PSW
  - ABCA Watercourse

*Completed  
By SG, RA  
May 9, 2012*



Basemap from Ontario Ministry of Natural Resources  
Orthophotography, 2010



Metres  
0 25 50 100  
UTM Zone 17N, WAD 83  
1:2,000

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Goshen ELC Survey  
**255\_GSH1606**

April 2012  
Project 60155002

**AECOM**

Figure 1



| Trees & Shrubs                                                                                                                                                                       | 1            | 2 | 3 | 4 | 5 | Tree & Shrubs                                         | 1 | 2 | 3 | 4 | 5 | Graminoids                                           | 1 | 2 | 3 | 4 | 5 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---|---|---|---|-------------------------------------------------------|---|---|---|---|---|------------------------------------------------------|---|---|---|---|---|
| Conifers                                                                                                                                                                             |              |   |   |   |   | Deciduous                                             |   |   |   |   |   | Grasses                                              |   |   |   |   |   |
| Balsam Fir ( <i>Abies balsamea</i> )                                                                                                                                                 |              |   |   |   |   | White Oak ( <i>Quercus alba</i> )                     |   |   |   |   |   | Giant Redtop ( <i>Agrostis gigantea</i> )            |   |   |   |   |   |
| Common Juniper ( <i>Juniperus communis</i> )                                                                                                                                         |              |   |   |   |   | Bur Oak ( <i>Quercus macrocarpa</i> )                 |   |   |   |   |   | Redtop ( <i>Agrostis stolonifera</i> )               |   |   |   |   |   |
| Eastern Red Cedar ( <i>Juniperus virginiana</i> )                                                                                                                                    |              |   |   |   |   | Red Oak ( <i>Quercus rubra</i> )                      |   |   |   |   |   | Awnless Brome ( <i>Bromus inermis</i> )              |   |   |   |   |   |
| Tamarack ( <i>Larix laricina</i> )                                                                                                                                                   |              |   |   |   |   | Alder Buckthorn ( <i>Rhamnus alnifolia</i> )          |   |   |   |   |   | Bromus                                               |   |   |   |   |   |
| Norway Spruce ( <i>Picea abies</i> )                                                                                                                                                 |              |   |   |   |   | Common Buckthorn ( <i>Rhamnus cathartica</i> )        |   |   |   |   |   | Blue-joint Grass ( <i>Calamagrostis canadensis</i> ) |   |   |   |   |   |
| White Spruce ( <i>Picea glauca</i> )                                                                                                                                                 |              |   |   |   |   | Smooth Sumac ( <i>Rhus glabra</i> )                   |   |   |   |   |   | Orchard Grass ( <i>Dactylis glomerata</i> )          |   |   |   |   |   |
| Black Spruce ( <i>Picea mariana</i> )                                                                                                                                                |              |   |   |   |   | Staghorn Sumac ( <i>Rhus hirta</i> )                  |   |   |   |   |   | Poverty Oat Grass ( <i>Danthonia spicata</i> )       |   |   |   |   |   |
| Jack Pine ( <i>Pinus banksiana</i> )                                                                                                                                                 |              |   |   |   |   | Wild Black Currant ( <i>Ribes americanum</i> )        |   |   |   |   |   | Quack Grass ( <i>Elymus repens</i> )                 |   |   |   |   |   |
| Red Pine ( <i>Pinus resinosa</i> )                                                                                                                                                   |              |   |   |   |   | Prickly Gooseberry ( <i>Ribes cynosbati</i> )         |   |   |   |   |   | Virginia Wild Rye ( <i>Elymus virginicus</i> )       |   |   |   |   |   |
| Eastern White Pine ( <i>Pinus strobus</i> )                                                                                                                                          |              |   |   |   |   | Swamp Black Currant ( <i>Ribes lacustre</i> )         |   |   |   |   |   | Elymus                                               |   |   |   |   |   |
| Scotch Pine ( <i>Pinus sylvestris</i> )                                                                                                                                              |              |   |   |   |   | Red Currant ( <i>Ribes rubrum</i> )                   |   |   |   |   |   |                                                      |   |   |   |   |   |
| Canada Yew ( <i>Taxus canadensis</i> )                                                                                                                                               |              |   |   |   |   | <i>Ribes</i>                                          |   |   |   |   |   | Fowl Manna Grass ( <i>Glyceria striata</i> )         |   |   |   |   |   |
| Eastern White Cedar ( <i>Thuja occidentalis</i> )                                                                                                                                    |              |   |   |   |   | Black Locust ( <i>Robinia pseudo-acacia</i> )         |   |   |   |   |   | <i>Glyceria</i>                                      |   |   |   |   |   |
| Eastern Hemlock ( <i>Tsuga canadensis</i> )                                                                                                                                          |              |   |   |   |   | Prickly Rose ( <i>Rosa acicularis</i> )               |   |   |   |   |   | Rice Cut Grass ( <i>Leersia oryzoides</i> )          |   |   |   |   |   |
|                                                                                                                                                                                      |              |   |   |   |   | Smooth Rose ( <i>Rosa blanda</i> )                    |   |   |   |   |   | Tall Fescue ( <i>Lolium arundinaceum</i> )           |   |   |   |   |   |
|                                                                                                                                                                                      |              |   |   |   |   | Multiflora Rose ( <i>Rosa multiflora</i> )            |   |   |   |   |   | <i>Muhlenbergia</i>                                  |   |   |   |   |   |
|                                                                                                                                                                                      |              |   |   |   |   | Rose                                                  |   |   |   |   |   | Witch-grass ( <i>Panicum capillare</i> )             |   |   |   |   |   |
| <b>Deciduous</b>                                                                                                                                                                     |              |   |   |   |   | Com. Blackberry ( <i>Rubus allegheniensis</i> )       |   |   |   |   |   | <i>Panicum</i>                                       |   |   |   |   |   |
| Manitoba Maple ( <i>Acer negundo</i> )                                                                                                                                               |              |   |   |   |   | Wild Red Raspberry ( <i>Rubus idaeus</i> )            |   |   |   |   |   | Reed Canary Grass ( <i>Phalaris arundinacea</i> )    |   |   |   |   |   |
| Black Maple ( <i>Acer nigrum</i> )                                                                                                                                                   |              |   |   |   |   | Black Raspberry ( <i>Rubus occidentalis</i> )         |   |   |   |   |   | Timothy ( <i>Phleum pratense</i> )                   |   |   |   |   |   |
| Norway Maple ( <i>Acer platanoides</i> )                                                                                                                                             |              |   |   |   |   | Purple-fl. Raspberry ( <i>Rubus odoratus</i> )        |   |   |   |   |   | Common Reed ( <i>Phragmites australis</i> )          |   |   |   |   |   |
| Red Maple ( <i>Acer rubrum</i> )                                                                                                                                                     |              |   |   |   |   | Dwarf Raspberry ( <i>Rubus pubescens</i> )            |   |   |   |   |   | Canada Blue Grass ( <i>Poa compressa</i> )           |   |   |   |   |   |
| Silver Maple ( <i>Acer saccharinum</i> )                                                                                                                                             |              |   |   |   |   | <i>Rubus</i>                                          |   |   |   |   |   | Fowl Meadow Grass ( <i>Poa palustris</i> )           |   |   |   |   |   |
| Freeman's Maple ( <i>Acer X freemanii</i> )                                                                                                                                          |              |   |   |   |   | Peach-leaved Willow ( <i>Salix amygdaloides</i> )     |   |   |   |   |   | Kentucky Bluegrass ( <i>Poa pratensis</i> )          |   |   |   |   |   |
| Sugar Maple ( <i>Acer saccharum</i> )                                                                                                                                                |              |   |   |   |   | Bebb's Willow ( <i>Salix bebbiana</i> )               |   |   |   |   |   | Yellow Foxtail ( <i>Setaria pumila</i> )             |   |   |   |   |   |
| Mountain Maple ( <i>Acer spicatum</i> )                                                                                                                                              |              |   |   |   |   | Pussy Willow ( <i>Salix discolor</i> )                |   |   |   |   |   | Green Foxtail ( <i>Setaria viridis</i> )             |   |   |   |   |   |
| Speckled Alder ( <i>Alnus incana</i> )                                                                                                                                               |              |   |   |   |   | Missouri Willow ( <i>Salix eriocephala</i> )          |   |   |   |   |   |                                                      |   |   |   |   |   |
| Downy Serviceberry ( <i>Amelanchier arborea</i> )                                                                                                                                    |              |   |   |   |   | Sandbar Willow ( <i>Salix exigua</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
| Serviceberry ( <i>Amelanchier sanguinea</i> )                                                                                                                                        |              |   |   |   |   | Shining Willow ( <i>Salix lucida</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
| Yellow Birch ( <i>Betula alleghaniensis</i> )                                                                                                                                        |              |   |   |   |   | Black Willow ( <i>Salix nigra</i> )                   |   |   |   |   |   |                                                      |   |   |   |   |   |
| White Birch ( <i>Betula papyrifera</i> )                                                                                                                                             |              |   |   |   |   | Slender Willow ( <i>Salix petiolaris</i> )            |   |   |   |   |   |                                                      |   |   |   |   |   |
| European Birch ( <i>Betula pendula</i> )                                                                                                                                             |              |   |   |   |   | <i>Salix</i>                                          |   |   |   |   |   |                                                      |   |   |   |   |   |
| Blue Beech ( <i>Carpinus caroliniana</i> )                                                                                                                                           |              |   |   |   |   | Hybrid Crack Willow ( <i>Salix X rubens</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
| Bitternut hickory ( <i>Carya cordiformis</i> )                                                                                                                                       |              |   |   |   |   | Black-barked Elder ( <i>Sambucus nigra</i> )          |   |   |   |   |   |                                                      |   |   |   |   |   |
| Shagbark Hickory ( <i>Carya ovata</i> )                                                                                                                                              |              |   |   |   |   | Red-barked Elder ( <i>Sambucus racemosa</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
| Climbing Bittersweet ( <i>Celastrus scandens</i> )                                                                                                                                   |              |   |   |   |   | Buffaloberry ( <i>Shepherdia canadensis</i> )         |   |   |   |   |   | <b>Sedges</b>                                        |   |   |   |   |   |
| Common Hackberry ( <i>Celtis occidentalis</i> )                                                                                                                                      |              |   |   |   |   | Eur. Mountain Ash ( <i>Sorbus aucuparia</i> )         |   |   |   |   |   | Drooping Wood Sedge ( <i>Carex arctata</i> )         |   |   |   |   |   |
| Buttonbush ( <i>Cephalanthus occidentalis</i> )                                                                                                                                      |              |   |   |   |   | Narrow Meadow-sweet ( <i>Spiraea alba</i> )           |   |   |   |   |   | Golden-fruited Sedge ( <i>Carex aurea</i> )          |   |   |   |   |   |
| Alt.-leaved Dogwood ( <i>Cornus alternifolia</i> )                                                                                                                                   |              |   |   |   |   | Common Lilac ( <i>Syringa vulgaris</i> )              |   |   |   |   |   | Graceful Sedge ( <i>Carex gracillima</i> )           |   |   |   |   |   |
| Silky Dogwood ( <i>Cornus amomum</i> )                                                                                                                                               |              |   |   |   |   | Poison-ivy ( <i>Toxicodendron rydbergii</i> )         |   |   |   |   |   | Inland Sedge ( <i>Carex interior</i> )               |   |   |   |   |   |
| Bunchberry ( <i>Cornus canadensis</i> )                                                                                                                                              |              |   |   |   |   | Climbing Poison-ivy ( <i>Toxicodendron radicans</i> ) |   |   |   |   |   | Bladder Sedge ( <i>Carex intumescens</i> )           |   |   |   |   |   |
| Gray dogwood ( <i>Cornus racemosa</i> )                                                                                                                                              |              |   |   |   |   | White Elm ( <i>Ulmus americana</i> )                  |   |   |   |   |   | Lake-bank Sedge ( <i>Carex lacustris</i> )           |   |   |   |   |   |
| Round-leaved Dogwood ( <i>Cornus rugosa</i> )                                                                                                                                        |              |   |   |   |   | Siberian Elm ( <i>Ulmus pumila</i> )                  |   |   |   |   |   | Hop Sedge ( <i>Carex lupulina</i> )                  |   |   |   |   |   |
| Red-osier Dogwood ( <i>Cornus sericea</i> )                                                                                                                                          |              |   |   |   |   | Slippery Elm ( <i>Ulmus rubra</i> )                   |   |   |   |   |   | Pennsylvania Sedge ( <i>Carex pensylvanica</i> )     |   |   |   |   |   |
| American Hazel ( <i>Corylus americana</i> )                                                                                                                                          |              |   |   |   |   | Low Blueberry ( <i>Vaccinium angustifolium</i> )      |   |   |   |   |   | Awl-fruited Sedge ( <i>Carex stipata</i> )           |   |   |   |   |   |
| Beaked Hazel ( <i>Corylus cornuta</i> )                                                                                                                                              |              |   |   |   |   | Maple-leaf Viburnum ( <i>Viburnum acerifolium</i> )   |   |   |   |   |   | Fox Sedge ( <i>Carex vulpinoidea</i> )               |   |   |   |   |   |
| Cockspur Thorn ( <i>Crataegus crus-galli</i> )                                                                                                                                       |              |   |   |   |   | Hobblebush ( <i>Viburnum lantanoides</i> )            |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| English Hawthorn ( <i>Crataegus monogyna</i> )                                                                                                                                       |              |   |   |   |   | Nannyberry ( <i>Viburnum lentago</i> )                |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| Large-fruited Thorn ( <i>Crataegus punctata</i> )                                                                                                                                    |              |   |   |   |   | Guelder-Rose ( <i>Viburnum opulus</i> )               |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| <i>Crataegus</i>                                                                                                                                                                     |              |   |   |   |   | Downy Arrow-wood ( <i>Vib. rafinesquianum</i> )       |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| Bush Honeysuckle ( <i>Diervilla lonicera</i> )                                                                                                                                       |              |   |   |   |   | Riverbank Grape ( <i>Vitis riparia</i> )              |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| Russian Olive ( <i>Elaeagnus angustifolia</i> )                                                                                                                                      |              |   |   |   |   | Am. Prickly-ash ( <i>Zanthoxylum americanum</i> )     |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| Autumn Olive ( <i>Elaeagnus umbellata</i> )                                                                                                                                          |              |   |   |   |   | <i>Illex americanus</i>                               |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| Run. Strawberry-bush ( <i>Euonymus obovata</i> )                                                                                                                                     |              |   |   |   |   |                                                       |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| American Beech ( <i>Fagus grandifolia</i> )                                                                                                                                          |              |   |   |   |   |                                                       |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| Glossy Buckthorn ( <i>Frangula alnus</i> )                                                                                                                                           |              |   |   |   |   |                                                       |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| White Ash ( <i>Fraxinus americana</i> )                                                                                                                                              |              |   |   |   |   | <b>Ferns &amp; Allies</b>                             |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| Black Ash ( <i>Fraxinus nigra</i> )                                                                                                                                                  |              |   |   |   |   | Lady Fern ( <i>Athyrium filix-femina</i> )            |   |   |   |   |   | <i>Carex</i>                                         |   |   |   |   |   |
| Green Ash ( <i>Fraxinus pennsylvanica</i> )                                                                                                                                          |              |   |   |   |   | Rattlesnake Fern ( <i>Botrychium virginianum</i> )    |   |   |   |   |   | <i>Cyperus</i>                                       |   |   |   |   |   |
| Witch-hazel ( <i>Hamamelis virginiana</i> )                                                                                                                                          |              |   |   |   |   | Bulbpet Bladder Fern ( <i>Cystopteris bulbifera</i> ) |   |   |   |   |   | Redroot Spike-rush ( <i>Eleocharis erythropoda</i> ) |   |   |   |   |   |
| Winterberry ( <i>Illex verticillata</i> )                                                                                                                                            |              |   |   |   |   | Spin. Wood Fern ( <i>Dryopteris carthusiana</i> )     |   |   |   |   |   | <i>Eleocharis</i>                                    |   |   |   |   |   |
| Butternut ( <i>Juglans cinerea</i> )                                                                                                                                                 |              |   |   |   |   | Crested Wood Fern ( <i>Dryopteris cristata</i> )      |   |   |   |   |   | Hard-stem Bulrush ( <i>Schoenoplectus acutus</i> )   |   |   |   |   |   |
| Black Walnut ( <i>Juglans nigra</i> )                                                                                                                                                |              |   |   |   |   | Marginal Wood Fern ( <i>Dryopteris marginalis</i> )   |   |   |   |   |   | Three-square Bulrush ( <i>Sch. pungens</i> )         |   |   |   |   |   |
| Common Privet ( <i>Ligustrum vulgare</i> )                                                                                                                                           |              |   |   |   |   | <i>Dryopteris</i>                                     |   |   |   |   |   | Soft-stem Bulrush ( <i>Sch. tabernaemontani</i> )    |   |   |   |   |   |
| Spicebush ( <i>Lindera benzoin</i> )                                                                                                                                                 |              |   |   |   |   | Ostrich Fern ( <i>Matteuccia struthiopteris</i> )     |   |   |   |   |   | Dark-green Bulrush ( <i>Scirpus atrovirens</i> )     |   |   |   |   |   |
| Fly Honeysuckle ( <i>Lonicera canadensis</i> )                                                                                                                                       |              |   |   |   |   | Sensitive Fern ( <i>Onoclea sensibilis</i> )          |   |   |   |   |   | Wool-grass ( <i>Scirpus cyperinus</i> )              |   |   |   |   |   |
| Glaucous Honeysuckle ( <i>Lonicera dioica</i> )                                                                                                                                      |              |   |   |   |   | Cinnamon Fern ( <i>Osmunda cinnamomea</i> )           |   |   |   |   |   |                                                      |   |   |   |   |   |
| Morrow's Honeysuckle ( <i>Lonicera morrowii</i> )                                                                                                                                    |              |   |   |   |   | Interrupted Fern ( <i>Osmunda claytoniana</i> )       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Tartarian Honeysuckle ( <i>Lonicera tatarica</i> )                                                                                                                                   |              |   |   |   |   | Royal Fern ( <i>Osmunda regalis</i> )                 |   |   |   |   |   |                                                      |   |   |   |   |   |
| Common Apple ( <i>Malus pumila</i> )                                                                                                                                                 |              |   |   |   |   | Christmas Fern ( <i>Polystichum acrostichoides</i> )  |   |   |   |   |   |                                                      |   |   |   |   |   |
| White Mulberry ( <i>Morus alba</i> )                                                                                                                                                 |              |   |   |   |   | Eastern Bracken-fern ( <i>Pteridium aquilinum</i> )   |   |   |   |   |   |                                                      |   |   |   |   |   |
| Sweet Gale ( <i>Myrica gale</i> )                                                                                                                                                    |              |   |   |   |   | Marsh Fern ( <i>Thelypteris palustris</i> )           |   |   |   |   |   | <b>Other Graminoids</b>                              |   |   |   |   |   |
| Ironwood ( <i>Ostrya virginiana</i> )                                                                                                                                                |              |   |   |   |   |                                                       |   |   |   |   |   | Broad Bur-reed ( <i>Sparganium eurycarpum</i> )      |   |   |   |   |   |
| Thicket-cræper ( <i>Parthenocissus inserta</i> )                                                                                                                                     |              |   |   |   |   |                                                       |   |   |   |   |   | Narrow-leaved Cattail ( <i>Typha angustifolia</i> )  |   |   |   |   |   |
| Ninebark ( <i>Physocarpus opulifolius</i> )                                                                                                                                          |              |   |   |   |   | Field Horsetail ( <i>Equisetum arvense</i> )          |   |   |   |   |   | Broad-leaved Cattail ( <i>Typha latifolia</i> )      |   |   |   |   |   |
| Balsam Poplar ( <i>Populus balsamifera</i> )                                                                                                                                         |              |   |   |   |   | Scouring-rush ( <i>Equisetum hyemale</i> )            |   |   |   |   |   | Broad-leaved Cattail ( <i>Typha X glauca</i> )       |   |   |   |   |   |
| Eastern Cottonwood ( <i>Populus deltoides</i> )                                                                                                                                      |              |   |   |   |   | Variiegated Horsetail ( <i>Equisetum variegatum</i> ) |   |   |   |   |   | Articulated Rush ( <i>Juncus articulatus</i> )       |   |   |   |   |   |
| Large-tooth Aspen ( <i>Populus grandidentata</i> )                                                                                                                                   |              |   |   |   |   | <i>Equisetum</i>                                      |   |   |   |   |   | Soft Rush ( <i>Juncus effusus</i> )                  |   |   |   |   |   |
| Trembling Aspen ( <i>Populus tremuloides</i> )                                                                                                                                       |              |   |   |   |   | Ground-cedar ( <i>Lycopodium digitatum</i> )          |   |   |   |   |   | Path Rush ( <i>Juncus tenuis</i> )                   |   |   |   |   |   |
| Sweet Cherry ( <i>Prunus avium</i> )                                                                                                                                                 |              |   |   |   |   | Shining Clubmoss ( <i>Lycopodium lucidulum</i> )      |   |   |   |   |   | <i>Juncus</i>                                        |   |   |   |   |   |
| Pin Cherry ( <i>Prunus pensylvanica</i> )                                                                                                                                            |              |   |   |   |   | Ground-pine ( <i>Lycopodium obscurum</i> )            |   |   |   |   |   | <i>Juncus</i>                                        |   |   |   |   |   |
| Black Cherry ( <i>Prunus serotina</i> )                                                                                                                                              |              |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Choke Cherry ( <i>Prunus virginiana</i> )                                                                                                                                            |              |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| <i>Prunus</i>                                                                                                                                                                        |              |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| D - Dominant : represented by large numbers; generally forming >10% ground cover or >25% vegetation cover in any one stratum                                                         |              |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| F - Fairly common (≠Abundant in ELC) : generally widespread scattered represented by fairly large numbers of individual clumps; usually forming >10% ground cover                    |              |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| U - Uncommon (≠Occasional in ELC) : present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category) |              |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| R - Rare : represented in the polygon by less than about five individuals or small clumps                                                                                            |              |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Map Number:                                                                                                                                                                          | 255 GSH 1606 | 1 |   |   |   | Form 5-2                                              |   |   |   |   | 4 |                                                      |   |   |   |   |   |
| Date:                                                                                                                                                                                | May 9, 2012  | 2 |   |   |   |                                                       |   |   |   |   | 6 |                                                      |   |   |   |   |   |
| Surveyors:                                                                                                                                                                           | SC, RA       | 3 |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |

D - Dominant: represented by large numbers; generally forming >10% ground cover or >25% vegetation cover in any one stratum  
F - Fairly common (Abundant in ELC): generally widespread represented by fairly large numbers of individual clumps; usually forming >10% ground cover  
U - Uncommon (=Occasional in ELC): present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category)  
R - Rare: represented in the column by less than ten individuals or small clumps

## Surveyors:

## Surveyors:

ASA

## Significant Wildlife Habitat Form

AECOM

|                     |                                                     |     |            |                |                     |
|---------------------|-----------------------------------------------------|-----|------------|----------------|---------------------|
| Study Area:         | BLW                                                 | JER | <u>GSH</u> | Map #:         | <u>255-GSH/1606</u> |
| Date:               | <u>May 8, 2012</u>                                  |     |            | Time Started:  | <u>8:15am</u>       |
| Field Staff:        | <u>RA, SG</u>                                       |     |            | Time Finished: | <u>10:00am</u>      |
| Weather Conditions: | <u>Sunny, ~50% cloud cover, Light Breeze, ~12°C</u> |     |            |                |                     |

**Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat**  
(FET1, FOC, FOM, FOD, SWC, SWM, SWD)

Nest bowls present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Number of nests: \_\_\_\_\_

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present): \_\_\_\_\_

Description of habitat (note riparian areas if present, evidence of disturbance): \_\_\_\_\_

**Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds**  
(CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)

Standing water present: ☐ No ☒ Yes (if yes, photograph and complete the following)

UTMs: see vernal pool form ☒ Area of standing water delineated on field map

Water depth (m): 1m % open water: 80% % emergent vegetation: 0%

Description of standing water (permanent pool, evidence of annual spring flooding, etc): \_\_\_\_\_

Open water pool, very few fringing shrubs/trees

Area and soil/substrate of shoreline habitat: Mud

Type and abundance of cover in open water habitat: None

Type and abundance of cover in surrounding habitat: TYPLATI-10%, CAREX SP.-10%, PINSTR-10%, POTREM-10%

Evidence of disturbance (e.g. cattle grazing): Pond was dug

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: \_\_\_\_\_

Maybe suitable for waterfowl stop over, no turtle or Marsh Breeding Bird Habitat observed

\*\*\*Complete Vernal Pool Habitat Description Form\*\*\*

**Snake Hibernacula**

Fissured rock/foundation or rock/debris pile present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Likelihood to extend below frost line: \_\_\_\_\_

% canopy cover: \_\_\_\_\_ % slope: \_\_\_\_\_ Distance to open canopy (m): \_\_\_\_\_

Description of fissure or stone pile (composition/material, dimensions, etc): \_\_\_\_\_

Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): \_\_\_\_\_

**Seeps and Springs** (FOC, FOM, FOD, SWC, SWM, SWD)

Evidence of seep or spring: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Description (indicator species, etc): \_\_\_\_\_

# NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

## Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

(CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)

Eroding bank, sandy hill, pits, steep slope or rock face present:

☒ No

☐ Yes (if yes, photograph and complete the following )

UTMs: \_\_\_\_\_

Location (e.g. aggregate pit, bridge): \_\_\_\_\_

Evidence of use by bank or cliff swallows (provide number of nests): \_\_\_\_\_

## Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

(BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAM5)

Shoreline of lake, large river or large wetland present:

☒ No

☐ Yes (if yes, photograph and complete the following )

UTMs: \_\_\_\_\_

Rocky island or peninsula present: \_\_\_\_\_

Mudflat present: \_\_\_\_\_

Evidence of disturbance (e.g. cattle grazing): \_\_\_\_\_

Description of habitat (size of rocky outcrop/mudflat, substrate/soil type, type and abundance of cover): \_\_\_\_\_

## Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat

CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW>15ha

Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUS, CUW) present:

Large open habitat present: ☒ No

☐ Yes (if yes, photograph and complete the following )

UTMs: \_\_\_\_\_

Evidence of disturbance (e.g. cattle grazing): \_\_\_\_\_

Description of habitat (abundance of food plants for rodents, abundance of perches, height of vegetation): \_\_\_\_\_

## Old-growth or Mature Forests, Interior Forest Breeding Birds

(FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)

Mature forest present: ☒ No

☐ Yes (if yes, photograph and complete the following )

UTMs: \_\_\_\_\_

Age of oldest trees: \_\_\_\_\_

Evidence of disturbance (e.g. selective cutting): \_\_\_\_\_

Description of habitat (structural complexity, abundance of snags and/or downed woody debris, etc): \_\_\_\_\_

| Photo # | Location or Subject | Photo # | Location or Subject |
|---------|---------------------|---------|---------------------|
|         |                     |         |                     |
|         |                     |         |                     |
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|         |                     |         |                     |

# Species Conservation Concern Habitat and Incidental Wildlife - Goshen

ASA

AE COM

Map No: 255-GSH1606  
Date (yyyy-mm-dd): 2012-05-09

Field Staff: RASG

Time Started: 8:15am  
Time Finished: 10:00am

## Observed Species List

| Species Code           | UTM | EV | Notes | Species Code              | UTM | EV | Notes |
|------------------------|-----|----|-------|---------------------------|-----|----|-------|
| Spring Peeper          |     | VO |       | Red Admiral               |     | OB |       |
| Common Yellowthroat    |     | VO |       | Brown-headed Cowbird      |     | VO |       |
| Blue-winged Greenlet   |     | VO |       | Blue Jay                  |     | VO |       |
| Red-winged Blackbird   |     | VO |       | Blue-winged Warbler       |     | VO |       |
| Black-capped Chickadee |     | VO |       | Chipping Sparrow          |     | VO |       |
| American Crow          |     | VO |       | Ruby-throated Hummingbird |     | VO |       |
| Black Squirrel         |     | VO |       | Baltimore Oriole          |     | OB |       |
| Horned Lark            |     | VO |       | American Goldfinch        |     | VO |       |
| Field Sparrow          |     | VO |       |                           |     |    |       |
| Savanna Sparrow        |     | VO |       |                           |     |    |       |
| Song Sparrow           |     | OB |       |                           |     |    |       |
| Northern Flicker       |     | VO |       |                           |     |    |       |
| Song Sparrow           |     | VO |       |                           |     |    |       |
| Wood Thrush            |     | VO |       |                           |     |    |       |

Note: Evidence Codes (EV) Breeding Bird (Possible) SH=Suitable Habitat, SM=Singing Male;

Breeding Bird (Probable) T-Territory, D=Display, P=Pair, N=Nest Building, V=Visiting Nest; A=Anxiety Behavior;

Breeding Bird (Confirmed) DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Feeds/Faecal sack, AE=Nest Entry

Other Wildlife Evidence: OB=observed, VO=Vocalization, CA=Carcass, DP=Distinctive Parts, HO=House/Den, FY=Eggs/young, TK=tracks, FE=Feeding evidence, SC=Scat, SI=Other signs (specify)

| ELC                                            | Species                                                                             | Habitat Description                                                                                                                                             | Habitat Present (Y/N; UTM; description of habitat if present) |
|------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <b>PLANTS</b>                                  |                                                                                     |                                                                                                                                                                 |                                                               |
| FOD7                                           | American Gromwell (Lithospermum latifolium) - S3<br>Bloom Time - Spring             | Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.                                                                            | Y (N) UTM:                                                    |
| ALO, TPO                                       | Muehlenberg's astomum moss (Astomum muehlenbergianum) - S2 Bloom Time - Spring      | Thin soil over level outcrop ledges and on soil under grasses in open prairie                                                                                   | Y (N) UTM:                                                    |
| FOM1, FOM2, CUP3                               | Autumn Coral-root (Corallorhiza odorifera) - S2<br>Bloom Time - summer to fall      | Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.                                                                   | Y (N) UTM:                                                    |
| FOO, FOM2, FOD                                 | Burning Bush (Euonymus atropurpureus) - S3 Bloom Time - April - June                | Species occurs in dry to moist deciduous thickets and woods                                                                                                     | Y (N) UTM: NO                                                 |
| SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6 | Chinese Hemlock Parsley (Conioselinum chinense) - S2<br>Bloom Time - summer to fall | Swampy places with deciduous trees, white cedars, tamarack, springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes. | Y (N) UTM:                                                    |
| SWC, SWM, SWD, SWT, MAM, MAS                   | Crowned Beggarticks (Bidens trichosperma) - S2<br>Bloom Time - late summer          | Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian Bay. Bogs, fens, tamarack swamps           | Y (N) UTM:                                                    |
| ALT1, FOD7                                     | Eastern Green-violet (Hybanthus concolor) - S2 Bloom Time - mid March to August     | Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.                                     | Y (N) UTM:                                                    |
| TPS, TPW, FOM1, FOM2                           | Fogg's Goosefoot (Chenopodium foggii) - S2                                          | Species occurs in sandy areas on limestone under oak or pine-oak forests                                                                                        | Y (N) UTM:                                                    |
| TPO2, TPS2, TPW2                               | Giant Ironweed (Vernonia gigantea) - S1? Bloom Time -                               | Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows                                                                                    | Y (N) UTM:                                                    |

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

| ELC                                                 | Species                                                                                                                              | Habitat Description                                                                                                                                          | Habitat Present (Y/N); UTM: description of habitat if present |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| CUM1, MAM, FOD6, FOD7, FOD9                         | June - August<br><u>Green Dragon (Arisaema dracontium) - S3/S3 Bloom Time - May and June</u>                                         | Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.                     | Y (N) UTM:                                                    |
| TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3      | June - August<br><u>Hairy Bedstraw (Galium pilosum) - S3 Bloom Time - June - August</u>                                              | Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields                                                                                    | Y (N) UTM:                                                    |
| FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW | June to August<br><u>Hairy Valerian (Valeriana edulis) - S1 Bloom Time - June to August</u>                                          | Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.                                                                | Y (N) UTM:                                                    |
| FOD6, FOD7, SWM, SWD                                | Summer<br><u>Hairy Wood Mint (Blephilia hirsuta) - S1 Bloom Time - Summer</u>                                                        | Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains                                                                            | Y (N) UTM:                                                    |
| FOD6, FOD7, FOD8, FOD9                              | Time - early to late April<br><u>Harbinger-of-spring (Erigenia bulbosa) - S3 Bloom Time - early to late April</u>                    | Occurs in rich, moist deciduous woods, especially on floodplains.                                                                                            | Y (N) UTM:                                                    |
| SAS1, SAM1, SAF1                                    | Time - summer<br><u>Hill's Pond Weed (Potamogeton hillii) - SC/S2 Bloom Time - summer</u>                                            | Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.                                                  | Y (N) UTM:                                                    |
| FOM6, FOM7, FOM8                                    | S2 Bloom Time - June to August<br><u>Large Round-leaved Orchid (Platanthera macrophylla) - S2 Bloom Time - June to August</u>        | Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.                                              | Y (N) UTM:                                                    |
| MAM2, MAM3, MAS2, MAS3, SWD                         | S3 Bloom Time - June to August<br><u>Lizard's Tail (Saururus cernuus) - S3 Bloom Time - June - September</u>                         | Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds. | Y (N) UTM:                                                    |
| FOD6, FOD7, FOD9                                    | March - May<br><u>Pawpaw (Asimina triloba) - S3 Bloom Time - March-May</u>                                                           | Occurs in moist deciduous woods and stream banks.                                                                                                            | Y (N) UTM:                                                    |
| FOM8, FOD6, FOD7, FOD9, CUM1                        | Early Summer<br><u>Pilose Evening Primrose (Oenothera pilosella) - S2 Bloom Time - Late Spring - Early Summer</u>                    | Moist edges of woods and open, disturbed ground.                                                                                                             | Y (N) UTM:                                                    |
| TPW1, FOM1, FOM2, FOD1, FOD2, FOD3                  | July - September<br><u>Prostrate Tick-trefoil (Desmodium rotundifolium) - S2 Bloom Time - July-September</u>                         | Dry, sandy or rocky woods                                                                                                                                    | Y (N) UTM:                                                    |
| FOD7, SWD                                           | March - June<br><u>Pumpkin Ash (Fraxinus profunda) - S2? Bloom Time - March - June</u>                                               | Swamps and floodplains                                                                                                                                       | Y (N) UTM:                                                    |
| CUM1, ALO, FET1, SWC                                | Mid June<br><u>Ram's-head Lady's-slipper (Cypripedium arietinum) - S3 Bloom Time - mid May to mid June</u>                           | Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.                                  | Y (N) UTM:                                                    |
| FOD1, FOD2, FOD3, FOD4, FOD6, FOC1, FOM1, FOM5      | September<br><u>Rattlesnake Hawkweed (Hieracium venesum) - S2 Bloom Time - April - September</u>                                     | Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.                                                                                 | Y (N) UTM: NO                                                 |
| FOD6, FOD7, FOD9                                    | June - June<br><u>Round-leaved Groundsel (Packera ebovata) - S3 Bloom Time - May - June</u>                                          | Found in moist woods                                                                                                                                         | Y (N) UTM:                                                    |
| CUM1, CUT1, CUS1                                    | S3?<br><u>Round-leaved hawthorn (Crataegus lumaria) - S3?</u>                                                                        | Species occurs in old fields, poorly managed pastures, fencelines and roadsides                                                                              | Y (N) UTM:                                                    |
| FOD6, FOD7, FOD8, FOD9, SWT2, SWT3                  | May to October<br><u>Scarlet Beebalm (Monarda didyma) - S3 Bloom Time - May to October</u>                                           | Found in moist, rich woods, thicket swamps, banks and floodplains.                                                                                           | Y (N) UTM:                                                    |
| ALO, ALS, ALT, TPO, TPS, TPW                        | S3<br><u>Slender Blazing Star (Liatris cylindracea) - S3</u>                                                                         | Species occurs in limestone and dolostone pavement, prairies, open woods, alvars and moist sandy meadows.                                                    | Y (N) UTM:                                                    |
| SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2         | S2<br><u>Slender Knotweed (Polygonum tenue) - S2</u>                                                                                 | Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits                                                       | Y (N) UTM:                                                    |
| SDT1, FOD5, FOD9                                    | S2<br><u>Slim-flowered Muhly (Muhlenbergia tenuiflora) - S2</u>                                                                      | Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods                   | Y (N) UTM:                                                    |
| BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7      | S2 Bloom Time - late summer to mid fall<br><u>Stiff Gentian (Gentianella quinquefolia) - S2 Bloom Time - late summer to mid fall</u> | Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.                                              | Y (N) UTM:                                                    |
| TPS1, TPW1, CUW1, RBO, SBO                          | S3 Bloom Time - mid-March to mid-June<br><u>Sundial Lupine (Lupinus perennis) - S3 Bloom Time - mid-March to mid-June</u>            | Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen                                          | Y (N) UTM:                                                    |

# Species Conservation Concern Habitat and Incidental Wildlife – Goshen

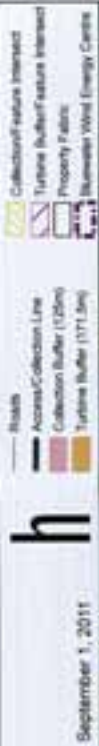
ADOM

| ELC                                        | Species                                                                                             | Habitat Description                                                                                                                                                                                                                                                                                                                                       | Habitat Present (Y/N; UTM; description of habitat if present) |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| TP01, TPS1, TPW1, CUM1                     | Tall Blazing Star ( <i>Liatis aspera</i> )-S3/SC                                                    | Occurs in open, sandy woods, dry roadsides and sandy prairies                                                                                                                                                                                                                                                                                             | Y (N) UTM: Toe Wet                                            |
| FEO, FES, FET, MAM2, MAM3                  | Tuberous Indian Plantain ( <i>Amoglossum plantagineum</i> ) - S3 Bloom Time – mid-March to mid-June | Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.                                                                                                                                                                                                                                                 | Y (N) UTM:                                                    |
| FOC1, FOC2, FOC3, FOC4                     | Woodland Pinedrops ( <i>Pterospora andromedea</i> ) - S2 Bloom Time – summer                        | Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar in dry or rocky soil, often with common juniper and sometimes aspen or birch                                                                                                                                                                                          | Y (N) UTM:                                                    |
| CUM1, CUT1, CUW1, RBO1, SBO1               | Yellow Ladies'-tresses ( <i>Spiranthes ochroleuca</i> ) - S2 Bloom Time – August to November        | Dry, open sites usually on acidic sandy soil, dry to mesic open woodland thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.                                                                                                                                                                                                   | Y (N) UTM: NO                                                 |
| BIRDS                                      |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                           |                                                               |
| -                                          | Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) - SC                                                 | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                 |
| CUW, SDO, RBO, TPS                         | Common Nighthawk ( <i>Chordeiles minor</i> ) - SC                                                   | Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.                                                                                                                                                                                        | Y (N) UTM:                                                    |
| FOD, FOM                                   | Louisiana Waterthrush ( <i>Seiurus motacilla</i> ) - SC                                             | Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration                                                                                                                   | Y (N) UTM:                                                    |
| FOD, CUW, CUT                              | Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC                                    | Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory. | Y (N) UTM:                                                    |
| -                                          | Short Eared Owl ( <i>Asio flammeus</i> ) - SC                                                       | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                 |
| CUT1                                       | Yellow-breasted Chat ( <i>Icteria virens</i> ) - SC                                                 | Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines                                                                                                                                                                                                  | Y (N) UTM:                                                    |
| REPTILES                                   |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                           |                                                               |
| -                                          | Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ) - SC                                             | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                 |
| -                                          | Milksnake ( <i>Lampropeltis triangulum</i> ) - SC                                                   | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                 |
| -                                          | Snapping Turtle ( <i>Chelydra serpentina</i> ) - SC                                                 | Assessed as SWH. Record species if found                                                                                                                                                                                                                                                                                                                  | not required.                                                 |
| INSECTS                                    |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                           |                                                               |
| QAO, SA, SWM, SWD                          | Azure Bluet ( <i>Enallagma aspersum</i> ) - S3                                                      | Species inhabits fishless ponds, lakes and boggy swamps                                                                                                                                                                                                                                                                                                   | Y (N) UTM:                                                    |
| TPS, TPW                                   | Sleepy Duskywing ( <i>Erynnis brize</i> ) - S1                                                      | Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles                                                                                                                                                                                    | Y (N) UTM:                                                    |
| CUM1, CUT1, CUW1                           | Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC                                                  | Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow                                                                                                                                                                                                   | Y (N) UTM: No Milkweed observed                               |
| TPS, CUW                                   | Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2                                                 | Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present                                                                                                                                                                                                                      | Y (N) UTM:                                                    |
| SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1 | Tawny Emperor ( <i>Asterocampa clyton</i> ) - S3                                                    | Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant                                                                                                                                                                                                           | Y (N) UTM:                                                    |
| FOD5                                       | West Virginia White ( <i>Pteris virginianensis</i> ) - SC                                           | This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur                                                                                                                                                                                                                                                           | Y (N) UTM:                                                    |

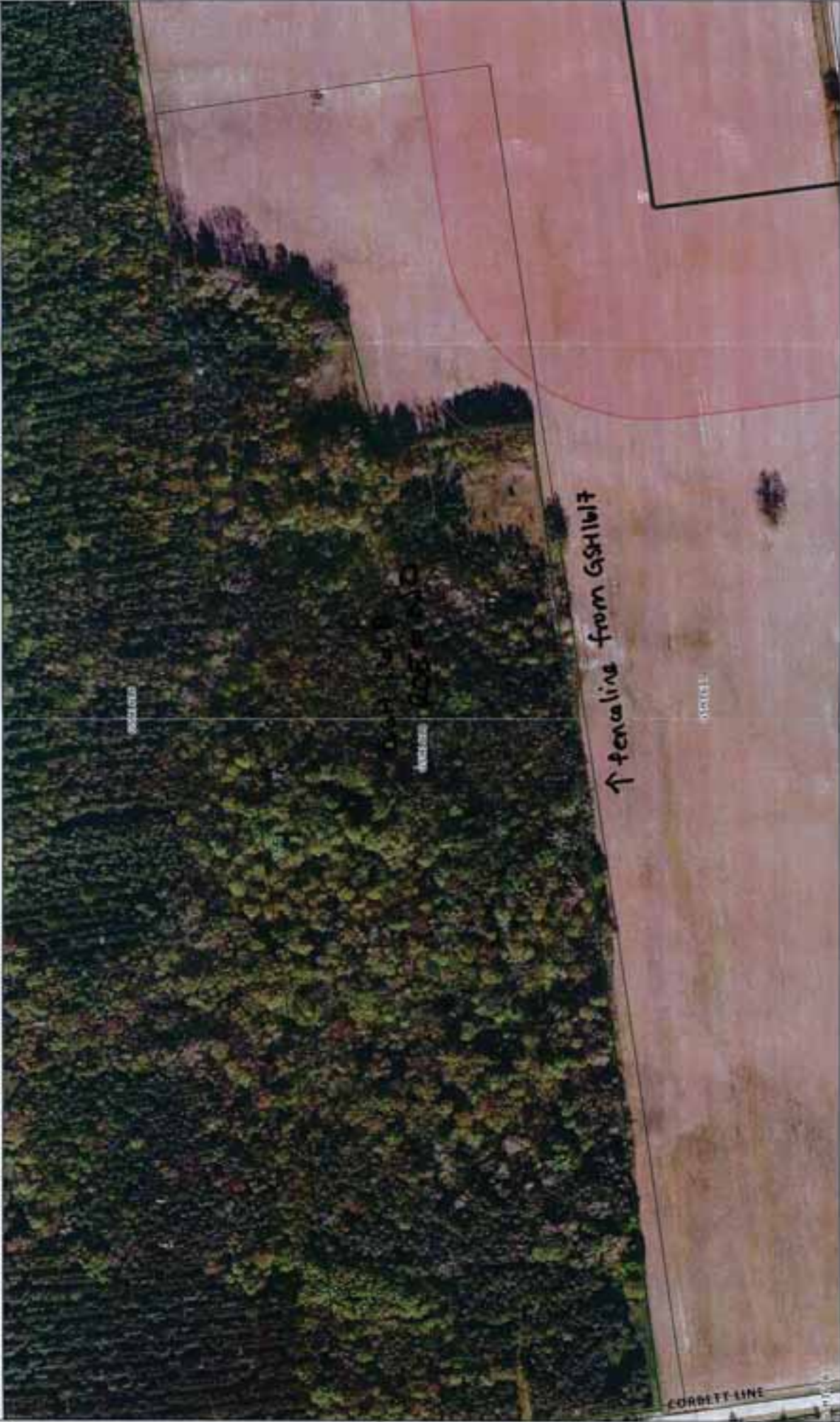
Goshen Feature: 258 GSH1618 | GE-17

(Properties that contain Features within 125m from Collection lines and 171.5m from Turbines)

No plant life  
no wildlife  
Sheet



50 100 Meters





Feature 258

63H5616

258

63H5618

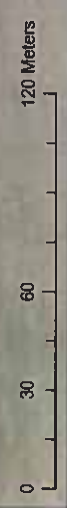
roe = yes

Nov. 29, 201

63H5617

Leased

17







Location: 258 GSH 1618  
Observer: Jm. TS

Observer: Jm, TS

1: 2ND3-2 ~~2ND3-2~~ \_\_\_\_\_  
 2: CUM 2 / man 2W \_\_\_\_\_  
 3: 1 \_\_\_\_\_

Cup3 inclusion

| CONIFERS                 |   |   |   |   |   | TREES and SHRUBS            |   |   |   |   |   | GRAMINOIDS              |   |   |   |   |   |
|--------------------------|---|---|---|---|---|-----------------------------|---|---|---|---|---|-------------------------|---|---|---|---|---|
| 1                        | 2 | 3 | 4 | 5 | 6 | 1                           | 2 | 3 | 4 | 5 | 6 | 1                       | 2 | 3 | 4 | 5 | 6 |
| Abies balsamea           |   |   |   |   |   | Rosa multiflora             |   |   |   |   |   | Agrostis gigantea       |   |   |   |   |   |
| Juniperus communis       |   |   |   |   |   | Rosa                        |   |   |   |   |   | Agrostis stolonifera    |   |   |   |   |   |
| Juniperus virginiana     |   |   |   |   |   | Rubus allegheniensis        |   |   |   |   |   | Agropyron repens        |   |   |   |   |   |
| Larix laricina           |   |   |   |   |   | Rubus idaeus                |   |   |   |   |   | Alopecurus              |   |   |   |   |   |
| Picea abies              |   |   |   |   |   | Rubus occidentalis          |   |   |   |   |   | Bromus inermis          |   |   |   |   |   |
| Picea glauca             |   |   |   |   |   | Rubus odoratus              |   |   |   |   |   | Carex acutata           |   |   |   |   |   |
| Picea resinosa           |   |   |   |   |   | Rubus pubescens             |   |   |   |   |   | Carex aurea             |   |   |   |   |   |
| Picea strobus            |   |   |   |   |   | Salix alba                  |   |   |   |   |   | Carex bebbii            |   |   |   |   |   |
| Picea sylvestris         |   |   |   |   |   | Salix amygdaloides          |   |   |   |   |   | Carex blanda            |   |   |   |   |   |
| Thuja occidentalis       |   |   |   |   |   | Salix bebbiana              |   |   |   |   |   | Carex gracillima        |   |   |   |   |   |
| Thuja canadensis         |   |   |   |   |   | Salix discolor              |   |   |   |   |   | Carex granularis        |   |   |   |   |   |
| Pinus borealis           |   |   |   |   |   | Salix microcephala          |   |   |   |   |   | Carex hystrix           |   |   |   |   |   |
|                          |   |   |   |   |   | Salix nigra                 |   |   |   |   |   | Carex pennsylvanica     |   |   |   |   |   |
|                          |   |   |   |   |   | Salix lucida                |   |   |   |   |   | Carex radiata           |   |   |   |   |   |
|                          |   |   |   |   |   | Salix petiolaris            |   |   |   |   |   | Carex retrosa           |   |   |   |   |   |
| TREES and SHRUBS         |   |   |   |   |   | Salix purpurea              |   |   |   |   |   | Carex stipitata         |   |   |   |   |   |
| Acer negundo             |   |   |   |   |   | Salix x rubens              |   |   |   |   |   | Carex stricta           |   |   |   |   |   |
| Acer rubrum              |   |   |   |   |   | Salix                       |   |   |   |   |   | Carex vulpinoides       |   |   |   |   |   |
| Acer saccharinum         |   |   |   |   |   | Sambucus canadensis         |   |   |   |   |   | Carex sp.               |   |   |   |   |   |
| Acer saccharum           |   |   |   |   |   | Sambucus racemosa           |   |   |   |   |   | Carex (C. grand)        |   |   |   |   |   |
| Acer spicatum            |   |   |   |   |   | Sorbus aucuparia            |   |   |   |   |   | Carex (Carex)           |   |   |   |   |   |
| Alnus rugosa             |   |   |   |   |   | Spirea alba                 |   |   |   |   |   | Carex                   |   |   |   |   |   |
| Amelanchier              |   |   |   |   |   | Syringa vulgaris            |   |   |   |   |   | Carex                   |   |   |   |   |   |
| Berberis thunbergii      |   |   |   |   |   | Tilia americana             |   |   |   |   |   | Carex                   |   |   |   |   |   |
| Betula alleghaniensis    |   |   |   |   |   | Ulmus americana             |   |   |   |   |   | Carex                   |   |   |   |   |   |
| Betula papyrifera        |   |   |   |   |   | Ulmus                       |   |   |   |   |   | Carex                   |   |   |   |   |   |
| Carpinus caroliniana     |   |   |   |   |   | Vaccinium                   |   |   |   |   |   | Carex                   |   |   |   |   |   |
| Carya cordiformis        |   |   |   |   |   | Viburnum lentago            |   |   |   |   |   | Cyperus                 |   |   |   |   |   |
| Celastrus scandens       |   |   |   |   |   | Viburnum opulus             |   |   |   |   |   | Cyperus                 |   |   |   |   |   |
| Cornus alternifolia      |   |   |   |   |   | Viburnum                    |   |   |   |   |   | Dactylis glomerata      |   |   |   |   |   |
| Cornus amomum            |   |   |   |   |   | Vitis riparia               |   |   |   |   |   | Dactylis spicata        |   |   |   |   |   |
| Cornus rugosa            |   |   |   |   |   |                             |   |   |   |   |   | Echinochloa crus-galli  |   |   |   |   |   |
| Cornus stolonifera       |   |   |   |   |   |                             |   |   |   |   |   | Echinochloa erythropoda |   |   |   |   |   |
| Corylus cornuta          |   |   |   |   |   |                             |   |   |   |   |   | Echinochloa             |   |   |   |   |   |
| Crataegus monogyna       |   |   |   |   |   |                             |   |   |   |   |   | Elymus virginicus       |   |   |   |   |   |
| Crataegus punctata       |   |   |   |   |   |                             |   |   |   |   |   | Elymus                  |   |   |   |   |   |
| Crataegus sp.            |   |   |   |   |   |                             |   |   |   |   |   | Festuca arundinacea     |   |   |   |   |   |
| Crataegus                |   |   |   |   |   |                             |   |   |   |   |   | Glyceria striata        |   |   |   |   |   |
| Diervilla lonicera       |   |   |   |   |   |                             |   |   |   |   |   | Glyceria                |   |   |   |   |   |
| Fagus grandifolia        |   |   |   |   |   |                             |   |   |   |   |   | Juncus dudleyi          |   |   |   |   |   |
| Fraxinus americana       |   |   |   |   |   | FERNS                       |   |   |   |   |   | Juncus effusus          |   |   |   |   |   |
| Fraxinus nigra           |   |   |   |   |   | Adiantum pedatum            |   |   |   |   |   | Juncus tenuis           |   |   |   |   |   |
| Fraxinus pennsylvanica   |   |   |   |   |   | Athyrium filix-femina       |   |   |   |   |   | Juncus                  |   |   |   |   |   |
| Ilex verticillata        |   |   |   |   |   | Botrychium multifidum       |   |   |   |   |   | Juncus                  |   |   |   |   |   |
| Juglans cinerea          |   |   |   |   |   | Botrychium virginianum      |   |   |   |   |   | Leersia oryzoides       |   |   |   |   |   |
| Juglans nigra            |   |   |   |   |   | Cyathea bulbifera           |   |   |   |   |   | Melinis borgei          |   |   |   |   |   |
| Lonicera morrowi         |   |   |   |   |   | Dryopteris carthusiana      |   |   |   |   |   | Oryzopsis asperifolia   |   |   |   |   |   |
| Lonicera tatarica        |   |   |   |   |   | Dryopteris cristata         |   |   |   |   |   | Panicum                 |   |   |   |   |   |
| Lonicera                 |   |   |   |   |   | Dryopteris marginalis       |   |   |   |   |   | Panicum                 |   |   |   |   |   |
| Malus panicula           |   |   |   |   |   | Dryopteris                  |   |   |   |   |   | Phalaris arundinacea    |   |   |   |   |   |
| Ostrya virginiana        |   |   |   |   |   | Equisetum arvense           |   |   |   |   |   | Phleum pratense         |   |   |   |   |   |
| Parthenocissus litoralis |   |   |   |   |   | Equisetum hyemale           |   |   |   |   |   | Pitaguardia australis   |   |   |   |   |   |
| Populus balsamifera      |   |   |   |   |   | Equisetum variegatum        |   |   |   |   |   | Poa compressa           |   |   |   |   |   |
| Populus grandidentata    |   |   |   |   |   | Equisetum                   |   |   |   |   |   | Poa pratensis           |   |   |   |   |   |
| Populus tremuloides      |   |   |   |   |   | Gymnocarpium dryopteris     |   |   |   |   |   | Poa                     |   |   |   |   |   |
| Populus deltoides        |   |   |   |   |   | Lycopodium digitatum        |   |   |   |   |   | Scirpus atrovirens      |   |   |   |   |   |
| Prunus pennsylvanica     |   |   |   |   |   | Lycopodium obscurum         |   |   |   |   |   | Scirpus cyperinus       |   |   |   |   |   |
| Prunus serotina          |   |   |   |   |   | Lycopodium                  |   |   |   |   |   | Scirpus validus         |   |   |   |   |   |
| Prunus virginiana        |   |   |   |   |   | Lycopodium                  |   |   |   |   |   | Scirpus                 |   |   |   |   |   |
| Prunus                   |   |   |   |   |   | Lycopodium                  |   |   |   |   |   | Scirpus                 |   |   |   |   |   |
| Quercus macrocarpa       |   |   |   |   |   | Mastigophora struthiopteris |   |   |   |   |   | Setaria                 |   |   |   |   |   |
| Quercus rubra            |   |   |   |   |   | Osmunda cinnamomea          |   |   |   |   |   | Sporopogon              |   |   |   |   |   |
| Quercus                  |   |   |   |   |   | Osmunda regalis             |   |   |   |   |   | Typha angustifolia      |   |   |   |   |   |
| Rhamnus cathartica       |   |   |   |   |   | Polypodium acrostichoides   |   |   |   |   |   | Typha latifolia         |   |   |   |   |   |
| Rhus radicans            |   |   |   |   |   | Peridermium apollinum       |   |   |   |   |   | Typha X glauca          |   |   |   |   |   |
| Rhus typhina             |   |   |   |   |   | Thelypteris palustris       |   |   |   |   |   |                         |   |   |   |   |   |
| Ribes americana          |   |   |   |   |   |                             |   |   |   |   |   |                         |   |   |   |   |   |
| Ribes cynosbat           |   |   |   |   |   |                             |   |   |   |   |   |                         |   |   |   |   |   |
| Ribes x rubrum           |   |   |   |   |   |                             |   |   |   |   |   |                         |   |   |   |   |   |
| Robinia pseudo-acacia    |   |   |   |   |   |                             |   |   |   |   |   |                         |   |   |   |   |   |
| Acer x Frax              |   |   |   |   |   |                             |   |   |   |   |   |                         |   |   |   |   |   |
| Cornus Rose              |   |   |   |   |   |                             |   |   |   |   |   |                         |   |   |   |   |   |

|                                   |                     |           |
|-----------------------------------|---------------------|-----------|
| <b>ELC</b><br><br><b>WILDLIFE</b> | SITE: 258 GSH 1618  |           |
|                                   | POLYGON:            |           |
|                                   | DATE: Nov 29 / 2011 |           |
|                                   | SURVEYORS: Jan, JS  |           |
| START TIME:                       |                     | END TIME: |

|                             |                    |            |                     |
|-----------------------------|--------------------|------------|---------------------|
| TEMP (°C): 32               | CLOUD (10th): over | WIND: 30km | PRECIPITATION: Rain |
| CONDITIONS: cold, wind rain |                    |            |                     |

**POTENTIAL WILDLIFE HABITAT:**

|                                                  |                                           |
|--------------------------------------------------|-------------------------------------------|
| <input checked="" type="checkbox"/> VERNAL POOLS | <input checked="" type="checkbox"/> SNAGS |
| <input type="checkbox"/> HIBERNACULA             | <input type="checkbox"/> FALLEN LOGS      |
| <input type="checkbox"/>                         | <input type="checkbox"/>                  |

**SPECIES LIST:**

| TY | SP. CODE | EV | NOTES | # | TY | SP. CODE | EV | NOTES | # |
|----|----------|----|-------|---|----|----------|----|-------|---|
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**FAUNAL TYPE CODES (TY):**

B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

**EVIDENCE CODES (EV):**

**BREEDING BIRD - POSSIBLE:**

SH = SUITABLE HABITAT

SM = SINGING MALE

**BREEDING BIRD - PROBABLE:**

T = TERRITORY

D = DISPLAY

P = PAIR

A = ANXIETY BEHAVIOUR

N = NEST BUILDING

V = VISITING NEST

**BREEDING BIRD - CONFIRMED:**

DD = DISTRACTION

NU = USED NEST

FY = FLEDGED YOUNG

NE = EGGS

NY = YOUNG

FS = FOOD/FECAL SACK

AE = NEST ENTRY

**OTHER WILDLIFE EVIDENCE:**

OB = OBSERVED

VO = VOCALIZATION

CA = CARCASS

DP = DISTINCTIVE PARTS

HO = HOUSE/DEN

FY = EGGS/YOUNG

TK = TRACKS

FE = FEEDING EVIDENCE

SC = SCAT

SI = OTHER SIGNS (specify)









## Page 1 of 2

D - Dominant: represented by large numbers; generally forming >10% ground cover or >25% vegetation cover in any one stratum

F - Fairly common (=Abundant in ELC): generally widespread represented by fairly large numbers of individual clumps, usually forming >10% ground cover

U - Uncommon (=Occasional in ELC): present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category)

R - Rare: represented in the polygon by less than about five individuals or small clumps

|             |              |   |        |   |
|-------------|--------------|---|--------|---|
| Map Number: | 258-GST11618 | 1 | CUR1-1 | 4 |
| Date:       | Nov 1, 2012  | 2 | CUR3-  | 8 |
| Surveyors:  | BA, SG       | 3 | SWD3-  |   |

## Page 2 of 2

D - Dominant: represented by large numbers, generally forming >10% ground cover or >25% vegetation cover in any one stratum  
F - Fairly common (=Abundant in ELC): generally widespread represented by fairly large numbers of individual clumps; usually forming >10% ground cover  
U - Uncommon (=Occasional in ELC): present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category)  
R - Rare: represented in the polygon by less than about five individuals or small clumps

[illegible]

# Significant Wildlife Habitat Form

AECOM

|                     |                                             |     |            |                |                    |
|---------------------|---------------------------------------------|-----|------------|----------------|--------------------|
| Study Area:         | BLW                                         | JER | <u>GSH</u> | Map #:         | <u>258-65H1618</u> |
| Date:               | <u>May 1, 2012</u>                          |     |            | Time Started:  | <u>8:15am</u>      |
| Field Staff:        | <u>BA, SG</u>                               |     |            | Time Finished: | <u>9:00am</u>      |
| Weather Conditions: | <u>Overcast, -5-10°C, rained last night</u> |     |            |                |                    |

**Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat**  
(FET1, FOC, FOM, FOD, SWC, SWM, SWD)

Nest bowls present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Number of nests: \_\_\_\_\_

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present): \_\_\_\_\_

\_\_\_\_\_

Description of habitat (note riparian areas if present, evidence of disturbance): \_\_\_\_\_

\_\_\_\_\_

**Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds**  
(CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)

Standing water present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Area of standing water delineated on field map: \_\_\_\_\_

Water depth (m): \_\_\_\_\_ % open water: \_\_\_\_\_ % emergent vegetation: \_\_\_\_\_

Description of standing water (permanent pool, evidence of annual spring flooding, etc): \_\_\_\_\_

\_\_\_\_\_

Area and soil/substrate of shoreline habitat: \_\_\_\_\_

\_\_\_\_\_

Type and abundance of cover in open water habitat: \_\_\_\_\_

\_\_\_\_\_

Type and abundance of cover in surrounding habitat: \_\_\_\_\_

\_\_\_\_\_

Evidence of disturbance (e.g. cattle grazing): \_\_\_\_\_

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**\*\*\*Complete Vernal Pool Habitat Description Form\*\*\***

**Snake Hibernacula**

Fissured rock/foundation or rock/debris pile present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Likelihood to extend below frost line: \_\_\_\_\_

% canopy cover: \_\_\_\_\_ % slope: \_\_\_\_\_ Distance to open canopy (m): \_\_\_\_\_

Description of fissure or stone pile (composition/material, dimensions, etc): \_\_\_\_\_

\_\_\_\_\_

Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): \_\_\_\_\_

\_\_\_\_\_

**Seeps and Springs** (FOC, FOM, FOD, SWC, SWM, SWD)

Evidence of seep or spring: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Description (indicator species, etc): \_\_\_\_\_

\_\_\_\_\_

# NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

## Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

(CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)

Eroding bank, sandy hill, pits, steep slope or rock face present:

☒ No

☐ Yes (if yes, photograph and complete the following )

UTMs:

Location (e.g. aggregate pit, bridge):

Evidence of use by bank or cliff swallows (provide number of nests):

## Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

(BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAM5)

Shoreline of lake, large river or large wetland present:

☒ No

☐ Yes (if yes, photograph and complete the following )

UTMs:

Rocky island or peninsula present:

Mudflat present:

Evidence of disturbance (e.g. cattle grazing):

Description of habitat (size of rocky outcrop/mudflat, substrate/soil type, type and abundance of cover):

## Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat

CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW > 15ha

Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUS, CUW) present:

Large open habitat present: ☒ No

☐ Yes (if yes, photograph and complete the following )

UTMs:

Evidence of disturbance (e.g. cattle grazing):

Description of habitat (abundance of food plants for rodents, abundance of perches, height of vegetation):

## Old-growth or Mature Forests, Interior Forest Breeding Birds

(FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)

Mature forest present: ☒ No

☐ Yes (if yes, photograph and complete the following )

UTMs:

Age of oldest trees:

Evidence of disturbance (e.g. selective cutting):

Description of habitat (structural complexity, abundance of snags and/or downed woody debris, etc):

| Photo # | Location or Subject | Photo # | Location or Subject |
|---------|---------------------|---------|---------------------|
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# Species Conservation Concern Habitat and Incidence Wildlife - Goshen

Map No: 258 CstH 1618  
Date (yyyy-mm-dd): 2012, May 1

Field Staff: SG, RA

Time Started: 8:15 am  
Time Finished: 9:00 am



## Observed Species List

| Species Code           | UTM | EV | Notes | Species Code     | UTM | EV | Notes |
|------------------------|-----|----|-------|------------------|-----|----|-------|
| Field Sparrow          |     | VO |       | Chipping Sparrow |     | VO |       |
| Turkey vulture         |     | OB |       |                  |     |    |       |
| Red-tailed hawk        |     | OB |       |                  |     |    |       |
| American Robin         |     | VO |       |                  |     |    |       |
| Indigo bunting         |     | VO |       |                  |     |    |       |
| Scrub wren             |     | VO |       |                  |     |    |       |
| Mourning dove          |     | VO |       |                  |     |    |       |
| Am. Goldfinch          |     | VO |       |                  |     |    |       |
| Golden-crowned kinglet |     | VO |       |                  |     |    |       |
| Black cap chickadee    |     | VO |       |                  |     |    |       |
| Warblers (mixed)       |     | VO |       |                  |     |    |       |
| White-throated sparrow |     | VO |       |                  |     |    |       |
| Savannah sparrow       |     | VO |       |                  |     |    |       |
| American crow          |     | VO |       |                  |     |    |       |

Note: Evidence Codes (EV) Breeding Bird (Possible) SH=Suitable Habitat, SM=Singing Male;

Breeding Bird (Probable) T-Territory, D=Display, P=Pair, N=Nest Building, V= Visiting Nest; A=Anxiety Behavior;

Breeding Bird (Confirmed) DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry

Other Wildlife Evidence: OB=observed, VO=Vocalization, CA=Carcass, DP=Distinctive Parts, HO=House/Den, FY=Eggs/Young, TK=tracks, FE=Feeding evidence, SC= Scat, SI=Other signs (specify)

| ELC                                            | Species                                                                             | Habitat Description                                                                                                                                             | Habitat Present (Y/N; UTM; description of habitat if present) |
|------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <b>PLANTS</b>                                  |                                                                                     |                                                                                                                                                                 |                                                               |
| FOD7                                           | American Gromwell (Lithospermum latifolium) - S3<br>Bloom Time - Spring             | Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.                                                                            | Y (N) UTM:                                                    |
| ALO, TPO                                       | Muehlenberg's astomum moss (Astomum muehlenbergianum) - S2 Bloom Time - Spring      | Thin soil over level outcrop ledges and on soil under grasses in open prairie                                                                                   | Y (N) UTM:                                                    |
| FOM1, FOM2, CUP3                               | Autumn Coral-root (Corallorhiza odontorhiza) - S2<br>Bloom Time - summer to fall    | Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.                                                                   | Y (N) UTM: nu                                                 |
| FOD, FOM, FOD                                  | Burning Bush (Eonymus atropurpureus) - S3 Bloom<br>Time - April - June              | Species occurs in dry to moist deciduous thickets and woods                                                                                                     | Y (N) UTM:                                                    |
| SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6 | Chinese Hemlock Parsley (Conioselinum chinense) - S2<br>Bloom Time - summer to fall | Swampy places with deciduous trees, white cedars, tamarack, springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes. | Y (N) UTM:                                                    |
| SWC, SWM, SWD, SWT, MAM, MAS                   | Crowned Beggarticks (Bidens trichosperma) - S2<br>Bloom Time - late summer          | Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian bay. Bogs, fens, tamarack swamps           | Y (N) UTM: not open                                           |
| ALT1, FOD7                                     | Eastern Green-violet (Hybanthus concolor) - S2 Bloom<br>Time - mid March to August  | Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.                                     | Y (N) UTM:                                                    |
| TPS, TPW, FOM1, FOM2                           | Fogg's Goosefoot (Chenopodium foggii) - S2                                          | Species occurs in sandy areas on limestone under oak or pine-oak forests                                                                                        | Y (N) UTM:                                                    |
| TPO2, TPS2, TPW2,                              | Giant Ironweed (Vernonia gigantea) - S1? Bloom Time -                               | Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows                                                                                    | Y (N) UTM:                                                    |

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

| ELC                                                 | Species                                                                                                                    | Habitat Description                                                                                                                                                  | Habitat Present (Y/N; UTM; description of habitat if present) |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| CUM1, MAM, FOD6, FOD7, FOD9                         | June - August<br>Green Dragon ( <i>Arisaema dracontium</i> ) - S3/S3 <u>Bloom Time</u> - May and June                      | Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.                             | Y (N) UTM:                                                    |
| TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3      | June-August<br>Hairy Bedstraw ( <i>Galium pilosum</i> ) - S3 <u>Bloom Time</u> - June-August                               | Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields                                                                                            | Y (N) UTM:                                                    |
| FEO1, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW | June to August<br>Hairy Valerian ( <i>Valeriana edulis</i> ) - S1 <u>Bloom Time</u> - June to August                       | Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.                                                                        | Y (N) UTM:                                                    |
| FOD6, FOD7, SWM, SWD                                | Summer<br>Hairy Wood Mint ( <i>Blephilia hirsuta</i> ) - S1 <u>Bloom Time</u> - Summer                                     | Woodlands, often rocky, especially rivers. Rich woods, <u>swamp forests</u> , floodplains                                                                            | (Y) N UTM: n/o                                                |
| FOD6, FOD7, FOD8, FOD9                              | Time - early to late April<br>Harbinger-of-spring ( <i>Erigenia bulbosa</i> ) - S3 <u>Bloom Time</u> - early to late April | Occurs in rich, moist deciduous woods, especially on floodplains.                                                                                                    | Y (N) UTM:                                                    |
| SAS1, SAM1, SAF1                                    | Time - summer<br>Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - SC/S2 <u>Bloom Time</u> - summer                         | Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.                                                          | Y (N) UTM:                                                    |
| FOM6, FOM7, FOM8                                    | June - August<br>Large Round-leaved Orchid ( <i>Platanthera macrophylla</i> ) - S2 <u>Bloom Time</u> - June to August      | Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.                                                      | Y (N) UTM:                                                    |
| MAM2, MAM3, MAS2, MAS3, SWD                         | June - September<br>Lizard's Tail ( <i>Saururus cernuus</i> ) - S3 <u>Bloom Time</u> - June - September                    | Species inhabits shores and streambanks along shallow water. As well as <u>swamps</u> , floodplains, shallow water and mudflats at the borders of streams and ponds. | (Y) N UTM: n/o                                                |
| FOD6, FOD7, FOD9                                    | March-May<br>Pawpaw ( <i>Asimina triloba</i> ) - S3 <u>Bloom Time</u> - March-May                                          | Occurs in moist deciduous woods and stream banks.                                                                                                                    | Y (N) UTM:                                                    |
| FOM8, FOD6, FOD7, FOD9, CUM1                        | Early Summer<br>Ploose Evening Primrose ( <i>Oenothera pilosella</i> ) - S2 <u>Bloom Time</u> - Late Spring - Early Summer | Moist edges of woods and open, disturbed ground.                                                                                                                     | (Y) N UTM: n/a                                                |
| TPW1, FOM1, FOM2, FOD1, FOD2, FOD3                  | July-September<br>Prostrate Tick-trefoil ( <i>Desmodium rotundifolium</i> ) - S2 <u>Bloom Time</u> - July-September        | Dry, sandy or rocky woods                                                                                                                                            | Y (N) UTM:                                                    |
| FOD7, SWD                                           | March - June<br>Pumpkin Ash ( <i>Fraxinus profunda</i> ) - S2? <u>Bloom Time</u> - March - June                            | Swamps and floodplains                                                                                                                                               | Y (N) UTM:                                                    |
| CUM1, ALO, FET1, SWC                                | Mid June<br>Ram's-head Lady's-slipper ( <i>Cypripedium arietinum</i> ) - S3 <u>Bloom Time</u> - mid May to mid June        | Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.                                          | Y (N) UTM:                                                    |
| FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5      | September<br>Rattlesnake Hawkweed ( <i>Hieracium venosum</i> ) - S2 <u>Bloom Time</u> - April - September                  | Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.                                                                                         | Y (N) UTM:                                                    |
| FOD6, FOD7, FOD9                                    | June<br>Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 <u>Bloom Time</u> - June                                    | Found in moist woods                                                                                                                                                 | Y (N) UTM:                                                    |
| CUM1, CUT1, CUS1                                    | June<br>Round-leaved hawthorn ( <i>Crataegus lumaria</i> ) - S3?                                                           | Species occurs in old fields, poorly managed pastures, fencelines and roadsides                                                                                      | (Y) N UTM: n/o                                                |
| FOD6, FOD7, FOD8, FOD9, SWT2, SWT3                  | May to October<br>Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 <u>Bloom Time</u> - May to October                        | Found in moist, rich woods, thicket swamps, banks and floodplains.                                                                                                   | Y (N) UTM:                                                    |
| ALO, ALS, ALT, TPO, TPS, TPW                        | Slender Blazing Star ( <i>Liatris cylindracea</i> ) - S3                                                                   | Species occurs in limestone and dolostone pavement, prairies, open woods, alvars and moist sandy meadows.                                                            | Y (N) UTM:                                                    |
| SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2         | S2<br>Slender Knotweed ( <i>Polygonum tenue</i> ) - S2                                                                     | Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits                                                               | (Y) N UTM:                                                    |
| SDT1, FOD5, FOD9                                    | S2<br>Slim-flowered Muhly ( <i>Muhlenbergia tenuiflora</i> ) - S2                                                          | Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods                           | Y (N) UTM:                                                    |
| BL01, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7      | late fall<br>Stiff Gentian ( <i>Gentianella quinquefolia</i> ) - S2 <u>Bloom Time</u> - late summer to mid fall            | Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.                                                      | Y (N) UTM:                                                    |
| TPS1, TPW1, CUW1, RBO, SBO                          | mid-March to mid-June<br>Sundial Lupine ( <i>Lupinus perennis</i> ) - S3 <u>Bloom Time</u> - mid-March to mid-June         | Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen                                                  | Y (N) UTM:                                                    |

# Species Conservation Concern Habitat and Incidental Wildlife – Goshen

ADOM

| ELC                                        | Species                                                                                                 | Habitat Description                                                                                                                                                                                                                                                                                                                                      | Habitat Present (Y/N; UTM; description or habitat if present) |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| TP01, TPS1, TPW1, CUM1                     | Tall Blazing Star ( <i>Liatris aspera</i> ) - S3/SC                                                     | Occurs in open, sandy woods, dry roadsides and sandy prairies                                                                                                                                                                                                                                                                                            | (Y) N UTM: <i>n/d</i>                                         |
| FE0, FES, FET, MAM2, MAM3                  | Tuberous Indian Plantain ( <i>Amoglossum plantaginifolium</i> ) - S3 Bloom Time - mid-March to mid-June | Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.                                                                                                                                                                                                                                                | (Y) N UTM:                                                    |
| FOC1, FOC2, FOC3, FOC4                     | Woodland Pinedrops ( <i>Pterospora andromedea</i> ) - S2 Bloom Time - summer                            | Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.                                                                                                                                                                                       | (Y) N UTM:                                                    |
| CUM1, CUT1, CUW1, RBO1, SBO1               | Yellow Ladies'-tresses ( <i>Spiranthes ochroleuca</i> ) - S2 Bloom Time - August to November            | Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, barrens, ledges, outcrops, banks and roadsides, old fields.                                                                                                                                                                                                         | (Y) N UTM: <i>n/d</i>                                         |
| <b>BIRDS</b>                               |                                                                                                         |                                                                                                                                                                                                                                                                                                                                                          |                                                               |
| -                                          | Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) - SC                                                     | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                | not required.                                                 |
| CUW, SDO, RBO, TPS                         | Common Nighthawk ( <i>Chordeiles minor</i> ) - SC                                                       | Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.                                                                                                                                                                                       | (Y) N UTM:                                                    |
| FOD, FOM                                   | Louisiana Waterthrush ( <i>Seiurus motacilla</i> ) - SC                                                 | Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration.                                                                                                                 | (Y) N UTM:                                                    |
| FOD, CUW, CUT                              | Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC                                        | Species inhabits open woodland/edges (oak savannahs and riparian forest), open, deciduous forest with little understory, fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory. | (Y) N UTM:                                                    |
| -                                          | Short Eared Owl ( <i>Asio flammeus</i> ) - SC                                                           | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                | not required.                                                 |
| CUT1                                       | Yellow-breasted Chat ( <i>Icteria virens</i> ) - SC                                                     | Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines                                                                                                                                                                                                 | (Y) N UTM:                                                    |
| <b>REPTILES</b>                            |                                                                                                         |                                                                                                                                                                                                                                                                                                                                                          |                                                               |
| -                                          | Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ) - SC                                                 | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                | not required.                                                 |
| -                                          | Milksnake ( <i>Lampropeltis triangulum</i> ) - SC                                                       | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                | not required.                                                 |
| -                                          | Snapping Turtle ( <i>Chelydra serpentina</i> ) - SC                                                     | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                | not required.                                                 |
| <b>INSECTS</b>                             |                                                                                                         |                                                                                                                                                                                                                                                                                                                                                          |                                                               |
| OAO, SA, SWM, SWD                          | Azure Bluet ( <i>Enallagma aspersum</i> ) - S3                                                          | Species inhabits fishless ponds, lakes and boggy swamps                                                                                                                                                                                                                                                                                                  | (Y) N UTM: <i>n/d</i>                                         |
| TPS, TPW                                   | Sleepy Duskywing ( <i>Erynnis brize</i> ) - S1                                                          | Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles.                                                                                                                                                                                  | (Y) N UTM:                                                    |
| CUM1, CUT1, CUW1                           | Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC                                                      | Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow                                                                                                                                                                                                  | (Y) N UTM: <i>no milkweed</i>                                 |
| TPS, CUW                                   | Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2                                                     | Usually seen nectaring on or wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present                                                                                                                                                                                                                     | (Y) N UTM:                                                    |
| SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1 | Tawny Emperor ( <i>Asterocampa clyten</i> ) - S3                                                        | Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant                                                                                                                                                                                                          | (Y) N UTM: <i>no hackberry</i>                                |
| FOD5                                       | West Virginia White ( <i>Pteris virginensis</i> ) - SC                                                  | This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur                                                                                                                                                                                                                                                          | (Y) N UTM:                                                    |

# Wetland Data Collection Sheet

**AECOM**

|                                       |                               |
|---------------------------------------|-------------------------------|
| Study area: <u>258 GSH 1618</u>       | Map No: <u>←</u>              |
| Date (yyyy-mm-dd): <u>2012, May 1</u> | Time Started: <u>8:15 am</u>  |
| Field Staff: <u>SG, RA</u>            | Time Finished: <u>9:00 am</u> |

|                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Presence of Groundwater</b> <div style="display: inline-block; width: 45%;">                 No <input checked="" type="checkbox"/> </div> <div style="display: inline-block; width: 45%;">                 Yes <input type="checkbox"/> </div> |
| <div style="display: flex; justify-content: space-around;"> <span><input type="checkbox"/> bank seepage</span> <span><input type="checkbox"/> iron staining</span> <span><input type="checkbox"/> groundwater indicator</span> </div>              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Site Type</b> <div style="display: flex; justify-content: space-between;"> <div>                 Lacustrine <input type="checkbox"/> (associated with lakes)<br/>                 Riverine <input type="checkbox"/> (associated with rivers)<br/>                 Palustrine <input type="checkbox"/> absent or intermittent inflow and either intermittent or permanent outflow             </div> <div>                 Isolated <input checked="" type="checkbox"/> </div> </div> |
| what are the water inputs and outputs? _____                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|                                                                                                         |
|---------------------------------------------------------------------------------------------------------|
| <b>Soils</b> refer to ELC card for soils information<br><u>refer to previously completed elc cards.</u> |
|---------------------------------------------------------------------------------------------------------|

|                                                                                     |                                                                                                      |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>% open Water</b>                                                                 |                                                                                                      |
| Type 1 - <5% <input checked="" type="checkbox"/>                                    | Type 5 - 26-75% <input type="checkbox"/> (water occurring in a small pattern)                        |
| Type 2 - 5-25% <input type="checkbox"/> (water occurring in one central location)   | Type 6 - 76-95% <input type="checkbox"/> (occurring in a central location, vegetation is peripheral) |
| Type 3 - 5-25% <input type="checkbox"/> (water occurring in ponds of various sizes) | Type 7 - 76-95% <input type="checkbox"/> (vegetation occurs in patches or diffuse, open stands)      |
| Type 4 - 26-75% <input type="checkbox"/> (water occurring in a central location)    | Type 8 - >95% <input type="checkbox"/> (water occupies over 95% of the area)                         |

| Community Descriptions     |                              |                          |                                |
|----------------------------|------------------------------|--------------------------|--------------------------------|
| Vegetation forms           |                              |                          |                                |
| h (deciduous trees)        | ne (narrow leaved emergents) | ts (tall shrubs 1-6m)    | f (aquatic with floating leaf) |
| c (coniferous trees)       | be (broad leaved emergents)  | ls (low shrubs up to 1m) | ff (free floating)             |
| dh (dead deciduous trees)  | gc (ground cover)            | ds (dead shrubs)         | su (all under water)           |
| dc (dead coniferous trees) | m (mosses)                   | re (robust emergents)    | u (unvegetated)                |

| Map Code/<br>ELC Code | Community Description - list at least four dominant species for each form |
|-----------------------|---------------------------------------------------------------------------|
| <u>SWD3-3</u>         | <u>h - Acer Freemanii, D, *</u>                                           |
|                       |                                                                           |
|                       |                                                                           |
|                       |                                                                           |

# Wetland Data Collection Sheet

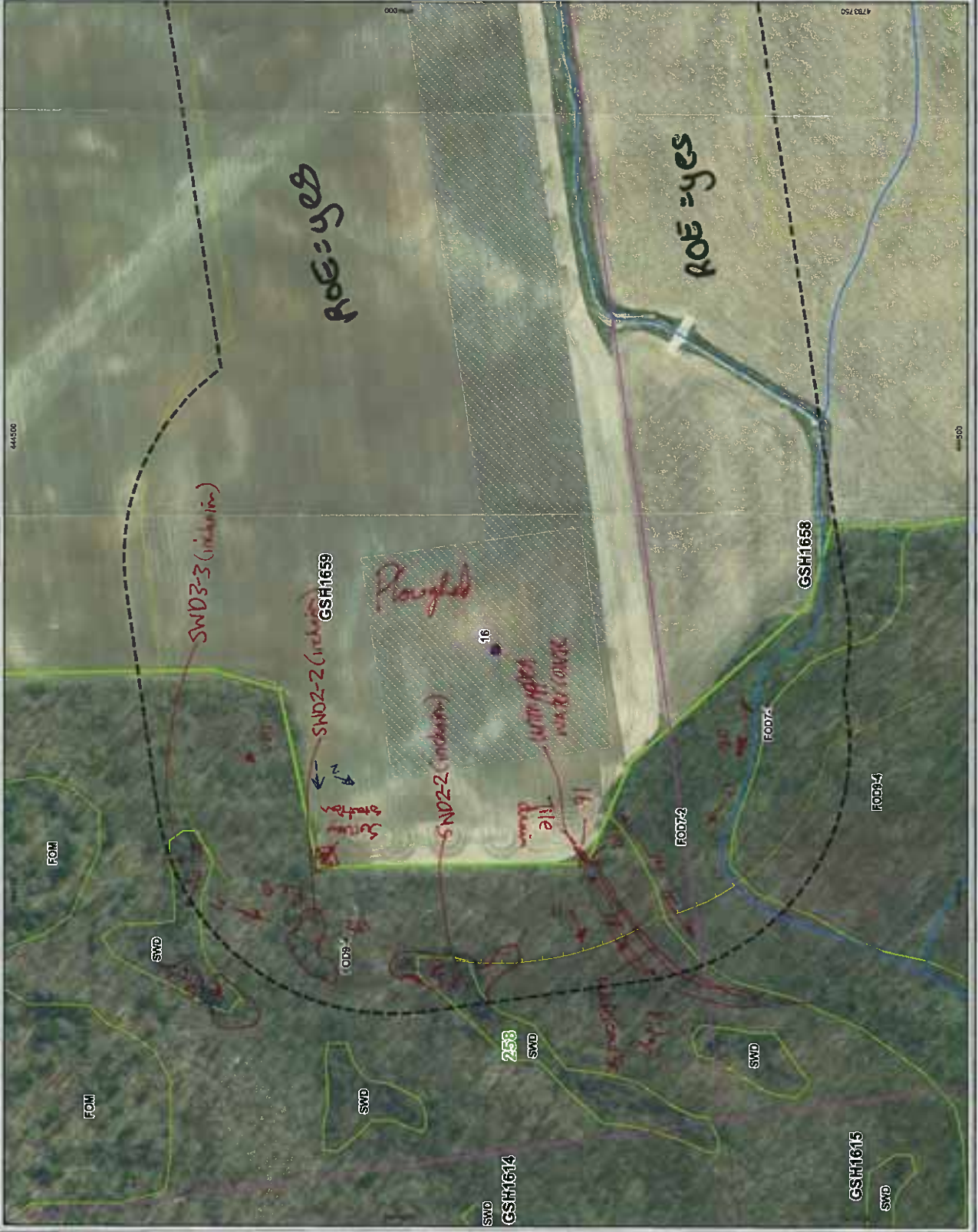
AECOM

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## Notes on Ecological Functions or features

should include notes on: furbearer, cranberries, wild rice, baitfish, bullfrogs, winter cover for wildlife, suitability for waterfowl breeding staging, moulting, evidence of recreational activities, disturbance, surrounding topography (flat, rolling, hilly, steep), and surrounding habitat diversity

- Very small swamp depression.
- landowner has drain → r. not hydrologically natural.



**Legend**

- Property Boundary
- GE Turbine
- ELC Completed 2011
- Natural Feature and ID
- ELC Polygon Boundary
- Disturbance Areas
- Area of Disturbance, plus 10m
- ANSI
- Evaluated Wetlands - PSW
- ABCA Watercourse

**0.5 ha**

Base mapping from Ontario Ministry of Natural Resources  
Orthophoto imagery, 2010

UTM Zone 17N, NAD 83  
1:2,000

0 25 50 100  
Metres

N  
W E S

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**258\_GSH1658/GSH1659**

Goshan Amphibian Survey

April 2012

Project 001158032

**AECOM**

Figure 1

## Page 1 of 2

| Trees & Shrubs                                                                                                                                                                      | 1     | 2           | 3 | 4 | 5 | Trees & Shrubs                                        | 1 | 2 | 3 | 4 | 5 | Graminoids                                           | 1 | 2 | 3 | 4 | 5 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|---|---|---|-------------------------------------------------------|---|---|---|---|---|------------------------------------------------------|---|---|---|---|---|
| Conifers                                                                                                                                                                            |       |             |   |   |   | Deciduous                                             |   |   |   |   |   | Grasses                                              |   |   |   |   |   |
| Isam Fir ( <i>Abies balsamea</i> )                                                                                                                                                  |       |             |   |   |   | White Oak ( <i>Quercus alba</i> )                     |   |   |   |   |   | Giant Redtop ( <i>Agrostis exaristata</i> )          |   |   |   |   |   |
| Common Juniper ( <i>Juniperus communis</i> )                                                                                                                                        |       |             |   |   |   | Bur Oak ( <i>Quercus macrocarpa</i> )                 |   |   |   |   |   | Redtop ( <i>Agrostis stolonifera</i> )               |   |   |   |   |   |
| Eastern Red Cedar ( <i>Juniperus virginiana</i> )                                                                                                                                   |       |             |   |   |   | Red Oak ( <i>Quercus rubra</i> )                      |   |   |   |   |   | Awless Brome ( <i>Bromus inermis</i> )               |   |   |   |   |   |
| Lamarck ( <i>Larix laricina</i> )                                                                                                                                                   |       |             |   |   |   | Alder Buckthorn ( <i>Rhamnus alnifolia</i> )          |   |   |   |   |   | Bromus                                               |   |   |   |   |   |
| Norway Spruce ( <i>Picea abies</i> )                                                                                                                                                |       |             |   |   |   | Common Buckthorn ( <i>Rhamnus cathartica</i> )        |   |   |   |   |   | Blue Joint Grass ( <i>Calamagrostis canadensis</i> ) |   |   |   |   |   |
| White Spruce ( <i>Picea glauca</i> )                                                                                                                                                |       |             |   |   |   | Smooth Sumac ( <i>Rhus glabra</i> )                   |   |   |   |   |   | Orchard Grass ( <i>Dactylis glomerata</i> )          |   |   |   |   |   |
| Black Spruce ( <i>Picea mariana</i> )                                                                                                                                               |       |             |   |   |   | Staghorn Sumac ( <i>Rhus hirta</i> )                  |   |   |   |   |   | Poor Oat Grass ( <i>Danthonia spicata</i> )          |   |   |   |   |   |
| Jack Pine ( <i>Pinus banksiana</i> )                                                                                                                                                |       |             |   |   |   | Wild Black Currant ( <i>Ribes americanum</i> )        |   |   |   |   |   | Quack Grass ( <i>Elymus repens</i> )                 |   |   |   |   |   |
| Red Pine ( <i>Pinus resinosa</i> )                                                                                                                                                  |       |             |   |   |   | Prickly Gooseberry ( <i>Ribes viscosum</i> )          |   |   |   |   |   | Virginia Wild Rye ( <i>Elymus virginicus</i> )       |   |   |   |   |   |
| Eastern White Pine ( <i>Pinus strobus</i> )                                                                                                                                         |       |             |   |   |   | Swamp Black Currant ( <i>Ribes lacustre</i> )         |   |   |   |   |   | Elymus                                               |   |   |   |   |   |
| Scotch Pine ( <i>Pinus sylvestris</i> )                                                                                                                                             |       |             |   |   |   | Red Currant ( <i>Ribes rubrum</i> )                   |   |   |   |   |   | Fowl Manna Grass ( <i>Glyceria striata</i> )         |   |   |   |   |   |
| Canada Yew ( <i>Taxus canadensis</i> )                                                                                                                                              |       |             |   |   |   | Ribes                                                 |   |   |   |   |   | Glyceria                                             |   |   |   |   |   |
| Eastern White Cedar ( <i>Thuja occidentalis</i> )                                                                                                                                   |       |             |   |   |   | Black Locust ( <i>Robinia pseudo-acacia</i> )         |   |   |   |   |   | Rice Cut Grass ( <i>Leersia oryzoides</i> )          |   |   |   |   |   |
| Eastern Hemlock ( <i>Suga canadensis</i> )                                                                                                                                          |       |             |   |   |   | Prickly Rose ( <i>Rosa acicularis</i> )               |   |   |   |   |   | Tall Fescue ( <i>Lolium arundinaceum</i> )           |   |   |   |   |   |
|                                                                                                                                                                                     |       |             |   |   |   | Smooth Rose ( <i>Rosa blanda</i> )                    |   |   |   |   |   | Muhlenbergia                                         |   |   |   |   |   |
|                                                                                                                                                                                     |       |             |   |   |   | Multiflora Rose ( <i>Rosa multiflora</i> )            |   |   |   |   |   | Witchgrass ( <i>Panicum capillare</i> )              |   |   |   |   |   |
|                                                                                                                                                                                     |       |             |   |   |   | Rosa                                                  |   |   |   |   |   | Panicum                                              |   |   |   |   |   |
| Deciduous                                                                                                                                                                           |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Manitoba Maple ( <i>Acer negundo</i> )                                                                                                                                              |       |             |   |   |   | Com. Blackberry ( <i>Rubus allegheniensis</i> )       |   |   |   |   |   | Reed Canary Grass ( <i>Phalaris arundinacea</i> )    |   |   |   |   |   |
| Black Maple ( <i>Acer nigrum</i> )                                                                                                                                                  |       |             |   |   |   | Wild Red Raspberry ( <i>Rubus daeus</i> )             |   |   |   |   |   | Timothy ( <i>Phleum pratense</i> )                   |   |   |   |   |   |
| Norway Maple ( <i>Acer platanoides</i> )                                                                                                                                            |       |             |   |   |   | Black Raspberry ( <i>Rubus occidentalis</i> )         |   |   |   |   |   | Common Reed ( <i>Phragmites australis</i> )          |   |   |   |   |   |
| Red Maple ( <i>Acer rubrum</i> )                                                                                                                                                    |       |             |   |   |   | Purple-fl. Raspberry ( <i>Rubus odoratus</i> )        |   |   |   |   |   | Canada Blue Grass ( <i>Poa compressa</i> )           |   |   |   |   |   |
| Silver Maple ( <i>Acer saccharinum</i> )                                                                                                                                            |       |             |   |   |   | Dwarf Raspberry ( <i>Rubus pubescens</i> )            |   |   |   |   |   | Fowl Meadow Grass ( <i>Poa pulstris</i> )            |   |   |   |   |   |
| Freeman's Maple ( <i>Acer X freemanii</i> )                                                                                                                                         |       |             |   |   |   | Rubus                                                 |   |   |   |   |   | Kentucky Bluegrass ( <i>Poa pratensis</i> )          |   |   |   |   |   |
| Sugar Maple ( <i>Acer saccharum</i> )                                                                                                                                               |       |             |   |   |   | Peach-leaved Willow ( <i>Salix amygdaloides</i> )     |   |   |   |   |   | Yellow Foxtail ( <i>Setaria pumila</i> )             |   |   |   |   |   |
| Mountain Maple ( <i>Acer spicatum</i> )                                                                                                                                             |       |             |   |   |   | Bebb's Willow ( <i>Salix bebbiana</i> )               |   |   |   |   |   | Green Foxtail ( <i>Setaria viridis</i> )             |   |   |   |   |   |
| Spotted Alder ( <i>Alnus incana</i> )                                                                                                                                               |       |             |   |   |   | Pussy Willow ( <i>Salix discolor</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
| Downy Serviceberry ( <i>Amelanchier arborea</i> )                                                                                                                                   |       |             |   |   |   | Missouri Willow ( <i>Salix eriocephala</i> )          |   |   |   |   |   |                                                      |   |   |   |   |   |
| Serviceberry ( <i>Amelanchier sanguinea</i> )                                                                                                                                       |       |             |   |   |   | Sandbar Willow ( <i>Salix eximia</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
| Yellow Birch ( <i>Betula alleghaniensis</i> )                                                                                                                                       |       |             |   |   |   | Shining Willow ( <i>Salix lucida</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
| White Birch ( <i>Betula papyrifera</i> )                                                                                                                                            |       |             |   |   |   | Black Willow ( <i>Salix nigra</i> )                   |   |   |   |   |   |                                                      |   |   |   |   |   |
| European Birch ( <i>Betula pendula</i> )                                                                                                                                            |       |             |   |   |   | Slender Willow ( <i>Salix petiolaris</i> )            |   |   |   |   |   |                                                      |   |   |   |   |   |
| Blue Beech ( <i>Carynus caroliniana</i> )                                                                                                                                           |       |             |   |   |   | Salix                                                 |   |   |   |   |   |                                                      |   |   |   |   |   |
| Blittemut hickory ( <i>Carya cordiformis</i> )                                                                                                                                      |       |             |   |   |   | Hybrid Crack Willow ( <i>Salix X rubens</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
| Shagbark Hickory ( <i>Carya ovata</i> )                                                                                                                                             |       |             |   |   |   | Black-berried Elder ( <i>Sambucus nigra</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
| Climbing Bittersweet ( <i>Celastrus scandens</i> )                                                                                                                                  |       |             |   |   |   | Red-berried Elder ( <i>Sambucus racemosa</i> )        |   |   |   |   |   |                                                      |   |   |   |   |   |
| Common Hackberry ( <i>Celtis occidentalis</i> )                                                                                                                                     |       |             |   |   |   | Buffaloberry ( <i>Shepherdia canadensis</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
| Buttonbush ( <i>Cephalanthus occidentalis</i> )                                                                                                                                     |       |             |   |   |   | Eur. Mountain Ash ( <i>Sorbus aucuparia</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
| Alt-leaved Dogwood ( <i>Cornus alternifolia</i> )                                                                                                                                   |       |             |   |   |   | Narrow Meadow-sweet ( <i>Spiraea alba</i> )           |   |   |   |   |   |                                                      |   |   |   |   |   |
| Silky Dogwood ( <i>Cornus amomum</i> )                                                                                                                                              |       |             |   |   |   | Common Lilac ( <i>Syringa vulgaris</i> )              |   |   |   |   |   |                                                      |   |   |   |   |   |
| Bunchberry ( <i>Cornus canadensis</i> )                                                                                                                                             |       |             |   |   |   | Poison-ivy ( <i>Toxicodendron radicans</i> )          |   |   |   |   |   |                                                      |   |   |   |   |   |
| Gray dogwood ( <i>Cornus racemosa</i> )                                                                                                                                             |       |             |   |   |   | Climbing Poison-ivy ( <i>Toxicodendron radicans</i> ) |   |   |   |   |   |                                                      |   |   |   |   |   |
| Round-leaved Dogwood ( <i>Cornus rugosa</i> )                                                                                                                                       |       |             |   |   |   | White Elm ( <i>Ulmus americana</i> )                  |   |   |   |   |   |                                                      |   |   |   |   |   |
| Red-osier Dogwood ( <i>Cornus sericea</i> )                                                                                                                                         |       |             |   |   |   | Siberian Elm ( <i>Ulmus pumila</i> )                  |   |   |   |   |   |                                                      |   |   |   |   |   |
| American Hazel ( <i>Cornus americana</i> )                                                                                                                                          |       |             |   |   |   | Slippery Elm ( <i>Ulmus rubra</i> )                   |   |   |   |   |   |                                                      |   |   |   |   |   |
| Beaked Hazel ( <i>Cornus comuta</i> )                                                                                                                                               |       |             |   |   |   | Low Blueberry ( <i>Vaccinium angustifolium</i> )      |   |   |   |   |   |                                                      |   |   |   |   |   |
| Cocksbur Thorn ( <i>Crataegus crus-galli</i> )                                                                                                                                      |       |             |   |   |   | Maple-leaf Viburnum ( <i>Viburnum acerifolium</i> )   |   |   |   |   |   |                                                      |   |   |   |   |   |
| English Hawthorn ( <i>Crataegus monogyna</i> )                                                                                                                                      |       |             |   |   |   | Hobblebush ( <i>Viburnum lentanoides</i> )            |   |   |   |   |   |                                                      |   |   |   |   |   |
| Large-fruited Thorn ( <i>Crataegus punctata</i> )                                                                                                                                   |       |             |   |   |   | Nannyberry ( <i>Viburnum lentanoides</i> )            |   |   |   |   |   |                                                      |   |   |   |   |   |
| Crataegus                                                                                                                                                                           |       |             |   |   |   | Gelder-Rose ( <i>Viburnum opulus</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
| Bush Honeysuckle ( <i>Diervilla lonicera</i> )                                                                                                                                      |       |             |   |   |   | Downy Arrow-wood ( <i>Vib. rafinesquianum</i> )       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Russian Olive ( <i>Elaeagnus angustifolia</i> )                                                                                                                                     |       |             |   |   |   | Riverbank Grass ( <i>Vitis riparia</i> )              |   |   |   |   |   |                                                      |   |   |   |   |   |
| Autumn Olive ( <i>Elaeagnus umbellata</i> )                                                                                                                                         |       |             |   |   |   | Am. Prickly-ash ( <i>Zanthoxylum americanum</i> )     |   |   |   |   |   |                                                      |   |   |   |   |   |
| Run. Strawberry-bush ( <i>Eubonymus ovata</i> )                                                                                                                                     |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| American Beech ( <i>Fagus grandifolia</i> )                                                                                                                                         |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Glossy Buckthorn ( <i>Fraxinus alnus</i> )                                                                                                                                          |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| White Ash ( <i>Fraxinus americana</i> )                                                                                                                                             |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Black Ash ( <i>Fraxinus nigra</i> )                                                                                                                                                 |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Green Ash ( <i>Fraxinus pennsylvanica</i> )                                                                                                                                         |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Witch-hazel ( <i>Hamamelis virginiana</i> )                                                                                                                                         |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Winterberry ( <i>Ilex verticillata</i> )                                                                                                                                            |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Butternut ( <i>Juglans cinerea</i> )                                                                                                                                                |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Black Walnut ( <i>Juglans nigra</i> )                                                                                                                                               |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Common Privet ( <i>Ligustrum vulgare</i> )                                                                                                                                          |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Sweetgum ( <i>Lindera benzoin</i> )                                                                                                                                                 |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Fl. Honeysuckle ( <i>Lonicera canadensis</i> )                                                                                                                                      |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Glaucous Honeysuckle ( <i>Lonicera dioica</i> )                                                                                                                                     |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Morrow's Honeysuckle ( <i>Lonicera morrowi</i> )                                                                                                                                    |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Tartarian Honeysuckle ( <i>Lonicera tatarica</i> )                                                                                                                                  |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Common Apple ( <i>Malus pumila</i> )                                                                                                                                                |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| White Mulberry ( <i>Morus alba</i> )                                                                                                                                                |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Sweet Gale ( <i>Myrica gale</i> )                                                                                                                                                   |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Ironwood ( <i>Ostrya virginiana</i> )                                                                                                                                               |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Thicket-creep ( <i>Parthenocissus inserta</i> )                                                                                                                                     |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Ninebark ( <i>Physocarpus opulifolius</i> )                                                                                                                                         |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Balsam Poplar ( <i>Populus balsamifera</i> )                                                                                                                                        |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Eastern Cottonwood ( <i>Populus deltoides</i> )                                                                                                                                     |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Large-tooth Aspen ( <i>Populus grandidentata</i> )                                                                                                                                  |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Trembling Aspen ( <i>Populus tremuloides</i> )                                                                                                                                      |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Sweet Cherry ( <i>Prunus avium</i> )                                                                                                                                                |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Pin Cherry ( <i>Prunus pennsylvanica</i> )                                                                                                                                          |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Black Cherry ( <i>Prunus serotina</i> )                                                                                                                                             |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Choke Cherry ( <i>Prunus virginiana</i> )                                                                                                                                           |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Prunus                                                                                                                                                                              |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| D - Dominant - represented by large numbers, generally forming >10% ground cover or >25% vegetation cover in any one stratum                                                        |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| F - Fairly common (Abundant in ELC) - generally widespread, represented by fairly large numbers if individual clumps, usually forming >10% ground cover                             |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| U - Uncommon (Occasional in ELC) - present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category) |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| R - Rare - represented by less than about five individuals or small clumps                                                                                                          |       |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Map Number:                                                                                                                                                                         | 258   | 3511659/167 |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Date:                                                                                                                                                                               | 4/15  | 2018        |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
| Surveyors:                                                                                                                                                                          | 10175 |             |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |

## Page 2 of 2

**Surveyors:**

# Significant Wildlife Habitat Form

AECOM

|                                                      |                                |                |                         |
|------------------------------------------------------|--------------------------------|----------------|-------------------------|
| Study Area:                                          | BLW JER <u>GSH</u>             | Map #:         | <u>258-6541658-1659</u> |
| Date:                                                | <u>2012-04-25</u>              | Time Started:  | <u>7:21</u>             |
| Field Staff:                                         | <u>Tom Sharkey Jess Piette</u> | Time Finished: | <u>11:30</u>            |
| Weather Conditions: <u>Sunny, 50°C, light breeze</u> |                                |                |                         |

**Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat**  
(FET1, FOC, FOM, FOD, SWC, SWM, SWD)

Nest bowls present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Number of nests: \_\_\_\_\_

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present): \_\_\_\_\_

Description of habitat (note riparian areas if present, evidence of disturbance): \_\_\_\_\_

**Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds**  
(CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1) avg. vpl, 2+3

Standing water present: ☐ No ☒ Yes (if yes, photograph and complete the following)

UTMs: See Vernal Pools Form ☒ Area of standing water delineated on field map

Water depth (m): Avg. 20cm % open water: Avg. 70% % emergent vegetation: Avg. 30%

Description of standing water (permanent pool, evidence of annual spring flooding, etc): All Pools → vernal

Area and soil/substrate of shoreline habitat: Mineral Soils along shoreline, some shrub cover.

Type and abundance of cover in open water habitat: Avg. 50% cover → Tree / shrub cover.

Type and abundance of cover in surrounding habitat: Surrounding habitat, comprised of Deciduous Forest type 80% - 90% cover.

Evidence of disturbance (e.g. cattle grazing): \_\_\_\_\_

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: For Approx. values check Vernal Pool Form

\*\*\*Complete Vernal Pool Habitat Description Form\*\*\*

**Snake Hibernacula**

Fissured rock/foundation or rock/debris pile present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Likelihood to extend below frost line: \_\_\_\_\_

% canopy cover: \_\_\_\_\_ % slope: \_\_\_\_\_ Distance to open canopy (m): \_\_\_\_\_

Description of fissure or stone pile (composition/material, dimensions, etc): \_\_\_\_\_

Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): \_\_\_\_\_

**Seeps and Springs** (FOC, FOM, FOD, SWC, SWM, SWD)

Evidence of seep or spring: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_ Description (indicator species, etc): \_\_\_\_\_

# NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

## Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

(CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)

Eroding bank, sandy hill, pits, steep slope or rock face present:

☒ No

☐ Yes (if yes, photograph and complete the following)

UTMs:

Location (e.g. aggregate pit, bridge):

Evidence of use by bank or cliff swallows (provide number of nests):

## Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

(BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAM5)

Shoreline of lake, large river or large wetland present:

☒ No

☐ Yes (if yes, photograph and complete the following)

UTMs:

Rocky island or peninsula present:

Mudflat present:

Evidence of disturbance (e.g. cattle grazing):

Description of habitat (size of rocky outcrop/mudflat, substrate/soil type, type and abundance of cover):

## Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat

CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW > 15ha

Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUS, CUW) present:

Large open habitat present: ☒ No

☐ Yes (if yes, photograph and complete the following)

UTMs:

Evidence of disturbance (e.g. cattle grazing):

Description of habitat (abundance of food plants for rodents, abundance of perches, height of vegetation):

## Old-growth or Mature Forests, Interior Forest Breeding Birds

(FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)

Mature forest present: ☒ No

☐ Yes (if yes, photograph and complete the following)

UTMs:

Age of oldest trees:

Evidence of disturbance (e.g. selective cutting):

Description of habitat (structural complexity, abundance of snags and/or downed woody debris, etc):

| Photo # | Location or Subject | Photo # | Location or Subject |
|---------|---------------------|---------|---------------------|
| 4, 5, 6 | Vernal Pool #1      |         |                     |
| 8       | Vernal Pool #2      |         |                     |
| 10      | Vernal Pool #3      |         |                     |
|         |                     |         |                     |
|         |                     |         |                     |
|         |                     |         |                     |
|         |                     |         |                     |
|         |                     |         |                     |
|         |                     |         |                     |

# Species Conservation Concern Habitat and Incidence al Wildlife - Goshen

Map No: 258 GSH/658/1659  
Date (yyyy-mm-dd): 2012-04-25

Field Staff: Tom Sloneg  
Jesse Pich

Time Started: 8:21  
Time Finished: 11:30

## Observed Species List

| Species Code             | UTM | EV  | Notes             | Species Code | UTM | EV | Notes |
|--------------------------|-----|-----|-------------------|--------------|-----|----|-------|
| Killdeer                 |     | Vo  | —                 |              |     |    |       |
| Blue Jay                 |     | Vo  | —                 |              |     |    |       |
| Downy Woodpecker         |     | Vo  | calling in forest |              |     |    |       |
| Black-throated Chickadee |     | Vo  | —                 |              |     |    |       |
| Sapsucker                |     | Vo  | —                 |              |     |    |       |
| Red-shouldered Hawk      |     | Ob  | —                 |              |     |    |       |
| Chimney Swift            |     | Ho  | —                 |              |     |    |       |
| Red-winged Blackbird     |     | Ob  | —                 |              |     |    |       |
| Deer                     |     | TKs | All over          |              |     |    |       |
| Brown-headed Cowbird     |     | Vo  | calling           |              |     |    |       |
| Goldfinch                |     | Vo  | —                 |              |     |    |       |
| Cabbage white            |     | Ob  | —                 |              |     |    |       |

Note: Evidence Codes (EV) SH=Suitable Habitat, SM=Singing Male; T-Territory, D=Display, P=Pair, N=Nest Building, V=Visiting Nest; A=Anxiety Behavior; DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry

Other Wildlife Evidence: OB=observed, VO=Vocalization, CA=Carcass, DP=Distinctive Parts, HO=House/Den, FY=Eggs/Young, TK=tracks, FE=Feeding evidence, SC=Scat, SI=Other signs (specify) *Not observed = N/O*

| ELC                                            | Species                                                                             | Habitat Description                                                                                                                                             | Habitat Present (Y/N; UTM; description of habitat if present) |
|------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| PLANTS                                         |                                                                                     |                                                                                                                                                                 |                                                               |
| FOD7                                           | American Gromwell (Lithospermum latifolium) - S3<br>Bloom Time - Spring             | Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.                                                                            | Y N UTM: N/O                                                  |
| ALO, TPO                                       | Muehlenberg's astomum moss (Astomum muehlenbergianum) - S2 Bloom Time - Spring      | Thin soil over level outcrop ledges and on soil under grasses in open prairie                                                                                   | Y N UTM:                                                      |
| FOM1, FOM2, CUP3                               | Autumn Coral-root (Corallorhiza odontorhiza) - S2<br>Bloom Time - summer to fall    | Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods                                                                    | Y N UTM:                                                      |
| FOD, FOM, FOD                                  | Burning Bush (Euonymus atropurpureus) - S3 Bloom Time - April - June                | Species occurs in dry to moist deciduous thickets and woods                                                                                                     | Y N UTM: N/O                                                  |
| SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6 | Chinese Hemlock Parsley (Conioselinum chinense) - S2<br>Bloom Time - summer to fall | Swampy places with deciduous trees, white cedars, tamarack; springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes. | Y N UTM:                                                      |
| SWC, SWM, SWD, SWT, MAM, MAS                   | Crowned Baggarticks (Bidens trichosperma) - S2<br>Bloom Time - late summer          | Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian bay. Bogs, fens, tamarack swamps.          | Y N UTM:                                                      |
| ALT1, FOD7                                     | Eastern Green-violet (Hybanthus concolor) - S2 Bloom Time - mid March to August     | Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.                                     | Y N UTM: N/O                                                  |
| TPS, TPW, FOM1, FOM2                           | Fogg's Goosefoot (Chenopodium foggii) - S2                                          | Species occurs in sandy areas on limestone under oak or pine-oak forests                                                                                        | Y N UTM:                                                      |
| TPO2, TPS2, TPW2,                              | Giant Ironweed (Vernonia gigantea) - S1? Bloom Time -                               | Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows                                                                                    | Y N UTM:                                                      |

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AZCOM

| ELC                                                 | Species                                                                                             | Habitat Description                                                                                                                                          | Habitat Presence (Y/N; UTM: description of habitat if present) |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| CUM1, MAM,                                          | June – August                                                                                       |                                                                                                                                                              |                                                                |
| FOD6, FOD7, FOD9                                    | Green Dragon ( <i>Arisaema dracontium</i> ) - S3/S3 Bloom Time – May and June                       | Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.                     | Y N UTM N/O                                                    |
| TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3      | Hairy Bedstraw ( <i>Galium pilosum</i> ) - S3 Bloom Time – June–August                              | Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields                                                                                    | Y N UTM                                                        |
| FE01, FET1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW | Hairy Valerian ( <i>Valeriana edulis</i> ) - S1 Bloom Time – June to August                         | Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.                                                                | Y N UTM                                                        |
| FOD6, FOD7, SWM, SWD                                | Hairy Wood Mint ( <i>Blephilia hirsuta</i> ) - S1 Bloom Time – Summer                               | Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.                                                                           | Y N UTM N/O                                                    |
| FOD6, FOD7, FOD8, FOD9                              | Harbinger-of-spring ( <i>Erigenia bulbosa</i> ) - S3 Bloom Time – early to late April               | Occurs in rich, moist deciduous woods, especially on floodplains.                                                                                            | Y N UTM N/O                                                    |
| SAS1, SAM1, SAF1                                    | Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - SC/S2 Bloom Time – summer                          | Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.                                                  | Y N UTM                                                        |
| FOM6, FOM7, FOM8                                    | Large Round-leaved Orchid ( <i>Platanthera macrophylla</i> ) - S2 Bloom Time – June to August       | Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.                                              | Y N UTM                                                        |
| MAM2, MAM3, MAS2, MAS3, SWD                         | Lizard's Tail ( <i>Saururus cernuus</i> ) - S3 Bloom Time – June – September                        | Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds. | Y N UTM                                                        |
| FOD6, FOD7, FOD9                                    | Pawpaw ( <i>Asimina triloba</i> ) - S3 Bloom Time – March–May                                       | Occurs in moist deciduous woods and stream banks                                                                                                             | Y N UTM N/O                                                    |
| FOM8, FOD6, FOD7, FOD9, CUM1                        | Pilose Evening Primrose ( <i>Oenothera pilosella</i> ) - S2 Bloom Time – Late Spring – Early Summer | Moist edges of woods and open, disturbed ground.                                                                                                             | Y N UTM N/O                                                    |
| TPW1, FOM1, FOM2, FOD1, FOD2, FOD3                  | Prostrate Tick-trefoil ( <i>Desmodium rotundifolium</i> ) - S2 Bloom Time – July–September          | Dry, sandy or rocky woods                                                                                                                                    | Y N UTM                                                        |
| FOD7, SWD                                           | Pumpkin Ash ( <i>Fraxinus profunda</i> ) - S2? Bloom Time – March – June                            | Swamps and floodplains                                                                                                                                       | Y N UTM N/O                                                    |
| CUM1, ALO, FET1, SWC                                | Ram's-head Lady's-slipper ( <i>Cypripedium arietinum</i> ) - S3 Bloom Time – mid May to mid June    | Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.                                  | Y N UTM                                                        |
| FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5      | Rattlesnake Hawkweed ( <i>Hieracium venosum</i> ) - S2 Bloom Time – April – September               | Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.                                                                                 | Y N UTM                                                        |
| FOD6, FOD7, FOD9                                    | Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 Bloom Time – May – June                      | Found in moist woods                                                                                                                                         | Y N UTM N/O                                                    |
| CUM1, CUT1, CUS1                                    | Round-leaved hawthorn ( <i>Crataegus lumaria</i> ) - S3?                                            | Species occurs in old fields, poorly managed pastures, fencelines and roadsides                                                                              | Y N UTM                                                        |
| FOD6, FOD7, FOD8, FOD9, SWT2, SWT3                  | Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 Bloom Time – May to October                          | Found in moist, rich woods, thicket swamps, banks and floodplains.                                                                                           | Y N UTM                                                        |
| ALO, ALS, ALT, TPO, TPS, TPW                        | Slender Blazing Star ( <i>Liatris cylindracea</i> ) - S3                                            | Species occurs in limestone and dolostone pavement, prairies, open woods; always and moist sandy meadows.                                                    | Y N UTM                                                        |
| SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2         | Slender Knotweed ( <i>Polygonum tenue</i> ) - S2                                                    | Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows; at edges of sand pits                                                       | Y N UTM                                                        |
| SDT1, FOD5, FOD9                                    | Slim-flowered Muhly ( <i>Muhlenbergia tenuiflora</i> ) - S2                                         | Found in rich deciduous forest often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods                    | Y N UTM N/O                                                    |
| BL01, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7      | Stiff Gentian ( <i>Gentianella quinquefolia</i> ) - S2 Bloom Time – late summer to mid fall         | Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.                                              | Y N UTM N/O                                                    |
| TPS1, TPW1, CUW1, RBO, SBO                          | Sundial Lupine ( <i>Lupinus perennis</i> ) - S3 Bloom Time – mid-March to mid-June                  | Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.                                         | Y N UTM                                                        |

# Species Conservation Concern Habitat and Incidental Wildlife – Goshen

A. OM

| ELC                                        | Species                                                                                              | Habitat Description                                                                                                                                                                                                                                                                                                                                       | Habitat Present (Y/N) UTM: description of habitat if present        |
|--------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| TP01, TPS1, TPW1, CUM1                     | Tall Blazing Star ( <i>Liatris aspera</i> ) - S3/SC                                                  | Occurs in open, sandy woods, dry roadsides and sandy prairies                                                                                                                                                                                                                                                                                             | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| FE0, FES, FET, MAM2, MAM3                  | Tuberous Indian Plantain ( <i>Amorhossium plantagineum</i> ) - S3 Bloom Time – mid-March to mid-June | Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.                                                                                                                                                                                                                                                 | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| FOC1, FOC2, FOC3, FOC4                     | Woodland Pinedrops ( <i>Pterospora andromedea</i> ) - S2 Bloom Time – summer                         | Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.                                                                                                                                                                                        | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| CUM1, CUT1, CUW1, RBO1, SBO1               | Yellow Ladies'-tresses ( <i>Spiranthes ochroleuca</i> ) - S2 Bloom Time – August to November         | Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.                                                                                                                                                                                                 | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| BIRDS                                      |                                                                                                      |                                                                                                                                                                                                                                                                                                                                                           |                                                                     |
| -                                          | Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) - SC                                                  | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                       |
| CUW, SDO, RBO, TPS                         | Common Nighthawk ( <i>Chordeiles minor</i> ) - SC                                                    | Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.                                                                                                                                                                                        | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| FOD, FOM                                   | Louisiana Waterthrush ( <i>Selurus metacilla</i> ) - SC                                              | Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration                                                                                                                   | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| FOD, CUW, CUT                              | Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC                                     | Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understory, fields or pasture lands with scattered large trees, wooded swamps, orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory. | Y <input checked="" type="radio"/> N <input type="radio"/> UTM: N/O |
| -                                          | Short Eared Owl ( <i>Asio flammeus</i> ) - SC                                                        | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required                                                        |
| CUT1                                       | Yellow-breasted Chat ( <i>Icteria virens</i> ) - SC                                                  | Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines                                                                                                                                                                                                  | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| REPTILES                                   |                                                                                                      |                                                                                                                                                                                                                                                                                                                                                           |                                                                     |
| -                                          | Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ) - SC                                              | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                       |
| -                                          | Milksnake ( <i>Lampropeltis triangulum</i> ) -SC                                                     | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                       |
| -                                          | Snapping Turtle ( <i>Chelydra serpentina</i> ) - SC                                                  | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required                                                        |
| INSECTS                                    |                                                                                                      |                                                                                                                                                                                                                                                                                                                                                           |                                                                     |
| OAO, SA, SWM, SWD                          | Azure Bluet ( <i>Enallagma aspersum</i> ) -S3                                                        | Species inhabits fishless ponds, lakes and boggy swamps                                                                                                                                                                                                                                                                                                   | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| TPS, TPW                                   | Sleepy Duskywing ( <i>Erynnis brizo</i> ) - S1                                                       | Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles                                                                                                                                                                                    | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| CUM1, CUT1, CUW1                           | Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC                                                   | Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow                                                                                                                                                                                                   | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| TPS, CUW                                   | Mottled Duskywing ( <i>Erynnis martialis</i> ) -S2                                                   | Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present                                                                                                                                                                                                                      | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1 | Tawny Emperor ( <i>Asterocampa clyton</i> ) - S3                                                     | Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant                                                                                                                                                                                                           | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |
| FOD5                                       | West Virginia White ( <i>Pieris virginianensis</i> ) - SC                                            | This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur                                                                                                                                                                                                                                                           | Y <input checked="" type="radio"/> N <input type="radio"/> UTM:     |