



CAROLINA WETLAND SERVICES, INC.  
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July 20, 2020

Michael Bender  
Boulevard Real Estate Advisors  
121 West Trade Street, Suite 2800  
Charlotte, NC 28202

**Subject: Protected Species Habitat Assessment Report  
Imperial Mill Belmont  
Belmont, North Carolina  
CWS Project No. 2020-0122**

Dear Mr. Bender,

Boulevard Real Estate Advisors has contracted Carolina Wetland Services, Inc. (CWS) to provide a protected species habitat assessment for the Imperial Mill Belmont project. The Imperial Mill Belmont project is approximately 23.5 acres in extent and is located southeast of the North Main Street and Airline Street Intersection in Gaston County, North Carolina (Figure 1, attached).

## Methods

### In-office Desktop Review

To determine which protected species are listed as occurring or potentially occurring within the project vicinity and prior to conducting the on-site field investigation, CWS consulted the United States Fish and Wildlife Service (USFWS) Endangered and Threatened Species and Species of Concern by County for North Carolina online database for Gaston County<sup>1</sup>. In addition, CWS performed a data review using the North Carolina Natural Heritage Program (NCNHP) Data Explorer<sup>2</sup> on July 13, 2020 to determine if any record occurrences of federally-listed, candidate endangered, threatened species, or critical habitat are located within the project limits.

Typical habitat requirements for listed species was discerned from multiple USFWS<sup>3</sup> and NCNHP<sup>4</sup> online resources including, but not limited to, specific USFWS species profiles, recovery plans, NCNHP's Guide to Federally Listed Endangered and Threatened Species of North Carolina, and List of the Rare Plant Species of North Carolina. United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS) Web Soil Survey of

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<sup>1</sup> United States Fish and Wildlife Service, Raleigh Field Office. Accessed July 13, 2020. Endangered and Threatened Species and Species of Concern by County for North Carolina. <https://www.fws.gov/raleigh/species/cntylist/gaston.html>

<sup>2</sup> North Carolina Natural Heritage Data Explorer. Accessed July 13, 2020. <https://ncnhde.natureserve.org/>

<sup>3</sup> U.S. Fish and Wildlife Service. 2006. Optimal Survey Windows for North Carolina's Federally Threatened and Endangered Plant Species. <https://www.fws.gov/southeast/pdf/fact-sheet/north-carolina-optimal-survey-windows-for-at-risk-and-listed-plants.pdf> Accessed July 17, 2020.

<sup>4</sup> Buchanan, M.F. and J.T. Finnegan. 2010. Natural Heritage Program List of the Rare Plant Species of North Carolina. NC Natural Heritage Program, Raleigh, NC. Accessed from [https://www.fws.gov/raleigh/species/cntylist/nc\\_counties.html](https://www.fws.gov/raleigh/species/cntylist/nc_counties.html)

Gaston County<sup>5</sup> and aerial imagery were also reviewed for potential habitat of listed species within the project vicinity (Figures 2 and 3).

### Field Survey

CWS scientists Megan Bollero, WPIT<sup>6</sup>, and Amie Hoy, WPIT, conducted a pedestrian habitat assessment of the project area on July 14, 2020. Potential habitats for potentially occurring federally-protected species that were identified during the desktop review were assessed in the field for the quality of physical and/or biological features essential to the conservation of the applicable species. Additionally, during the pedestrian habitat assessment, areas were reviewed for applicable federally protected species. Identification references for natural communities include the National Land Cover Database (2011)<sup>7</sup>.

### Results

Based on the NCNHP data explorer review, there are no current occurrences of federally protected species within a one-mile radius of the project limits (Attachment A). The USFWS lists four federally protected species for Gaston County (Table 1). An official species list has not been obtained from the USFWS Asheville Field Office.

**Table 1. Unofficial List of Federally-Protected Species Potentially Occurring within the Imperial Mill Belmont site, Gaston County, NC.**

Major Group	Scientific Name	Common Name	Federal Status*	Record Status
Plant	<i>Helianthus schweinitzii</i>	Schweinitz's sunflower	E	Current
Plant	<i>Hexastylis naniflora</i>	Dwarf-flowered heartleaf	T	Current
Animal	<i>Myotis septentrionalis</i>	Northern-long-eared bat	T	Current
Animal	<i>Haliaeetus leucocephalus</i>	Bald eagle	BGPA	Current

\* E - Endangered, T - Threatened, BGPA - Bald and Golden Eagle Protection Act

Four terrestrial community types were identified within the project area during the field survey. These community types consist of woody wetlands, undeveloped forested areas, herbaceous areas, and high intensity development with paved parking lots (Figure 3). Of the identified on-site community types, the herbaceous and forested areas are considered potential habitat for federally threatened or endangered species that could potentially occur within the project limits. A brief description of each species habitat requirements and determination of effect findings are listed below by species.

<sup>5</sup> United States Department of Agriculture, 2019. Web Soil Survey of Gaston County, North Carolina. Accessed 07/13/2020. Source: <https://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

<sup>6</sup> Wetland Professional in Training, The Society of Wetland Scientist Professional Certification Program

<sup>7</sup> MLRC. National Land Cover Database, 2011. [https://www.mrlc.gov/nlcd11\\_leg.php](https://www.mrlc.gov/nlcd11_leg.php)

Schweinitz's sunflower (*Helianthus schweinitzii*)

Habitat Description:

Schweinitz's sunflower is a perennial herb with yellow rays and yellow centers. They can reach heights of five feet. Populations are limited to the piedmont of North and South Carolina. It has been listed as an Endangered species under the ESA since 1991.<sup>8</sup> The typical habitat for this plant includes roadsides, old pastures, transmission line right-of-ways, open areas, either natural or human-maintained habitats, or edges of upland woods. Major characteristics of soils associated with suitable Schweinitz's sunflower habitat include thin soils, soils on upland interstream flats or gentle slopes, soils that are clay like in both composition and texture (and often with substantial rock fragments), soils that have a high shrinkage swell capacity, and those which vary over the course of the year from very wet to very dry.

Biological Analysis:

A NCNHP data record review revealed that there are no current occurrences for this species within a one-mile radius of the project. A desktop review of the site was conducted on July 14, 2020, and determined that the Pacolet soil series that have known Schweinitz's sunflower populations are found within the project limits. There are herbaceous areas that are infrequently maintained within the study area. These areas are potential habitat for Schweinitz's sunflower populations (Figure 3; Photographs 1-3). There are also open grassy areas within the study area that are too heavily maintained to provide supportive habitat for this species or that are heavily populated with kudzu (Photographs 4-6). The forested areas within the project limits do not provide adequate sunlight to support Schweinitz's sunflower (Photograph 7). The potential habitat was scrutinized during the site visit on July 14, 2020. No Schweinitz's sunflower or other *Helianthus* species were observed during the site visit. **Due to lack of *Helianthus* species within the study area and lack of known occurrences in the project vicinity, CWS concludes that this project will have no effect on the Schweinitz's sunflower.**

Dwarf-flowered heartleaf (*Hexastylis naniflora*)

Habitat Description:

Dwarf-flowered heartleaf is endemic to the western Piedmont and foothills of North and South Carolina. This herbaceous evergreen is found in moist to rather dry forests along bluffs; boggy areas next to streams and creek heads; and adjacent hillsides, slopes, and ravines. Requiring acidic, sandy loam soils, the species is found in soil series such as Pacolet, Madison, and Musella, among others. Occurrences are generally found on a north facing slope. Undisturbed natural communities such as Piedmont/Coastal Plain Heath Bluff, Dry-Mesic Oak Hickory Forest, and Mesic Mixed Hardwood Forest hold the most viable occurrences. However, less viable remnant occurrences are found in disturbed habitats, including logged, grazed, mown, and residential/commercial developed lands; areas converted to pasture, orchards, and tree plantations; roadside rights-of-way; and on upland slopes surrounding man-made ponds or lakes.<sup>9</sup>

<sup>8</sup> United States Fish and Wildlife Services. 1991. Endangered and Threatened Wildlife and Plants; *Helianthus schweinitzii* (Schweinitz's sunflower) Determined to be Endangered. [http://ecos.fws.gov/docs/federal\\_register/fr1852.pdf](http://ecos.fws.gov/docs/federal_register/fr1852.pdf).

<sup>9</sup> North Carolina Department of Transportation NRTR Guidelines for Consultants. T&E Animal and Plant Habitat Descriptions.

### Biological Analysis:

A NCNHP data record review revealed that there are no current occurrences for this species within the project limits, or within a one-mile radius of the project. The desktop review and field survey assessment determined that the Pacolet sandy loams soil associated with the Dwarf-flowered heartleaf are found within the project limits. However, field survey revealed that the Pacolet soils found on the site contained too much clay to be an optimal habitat for the dwarf-flowered heartleaf (Photographs 4-7). Additionally, species commonly associated with the dwarf-flowered heartleaf, such as mountain-laurel (*Kalmia latifolia*), were not observed on-site. A few individuals from the *Hexastylis* genus were observed on the hillsides, but all individuals of *Hexastylis* were identified as little brown jug (*Hexastylis arifolia*). **As the study area lacks optimal habitat and no unidentified *Hexastylis* species were observed, CWS concludes that the project will have no effect on the dwarf-flowered heartleaf.**

### Northern long-eared bat (*Myotis septentrionalis*)

The northern long-eared bat (NLEB) is one of the species of bats most impacted by the white-nose syndrome disease. Summer habitat (roosting habitat) of the NLEB includes forests and woodlots containing live trees and/or dead snags greater than three inches diameter at breast height with cavities or crevices. Winter habitat (hibernacula) of the NLEB includes caves, mines, rocky areas, or structures that mimic similar conditions such as culverts greater than 48-inch in diameter.<sup>10</sup> The NLEB was listed as Threatened (T) on April 2, 2015.

The forested areas within the property are potential habitats for the NLEB. A Standard Local Operating Procedure for Endangered Species Act Compliance (SLOPES) was established for NLEB between the USFWS Asheville and Raleigh Ecological Offices and the United States Army Corps of Engineers (USACE), Wilmington District, on January 31, 2017.<sup>11</sup> This SLOPES defines how the USACE will make determinations of effect to the NLEB on projects in which the USACE is the lead federal agency. Alternative Local Procedure 2 (ALP 2) applies for the Imperial Mill Belmont site as the action area is within range of the NLEB,<sup>12</sup> the action area is located outside of a red 12-digit HUC as defined by the Asheville Ecological Services Field Office,<sup>13</sup> and consultation by the USACE is required on other listed species or critical habitat.

The final 4(d) rule exempts incidental take of NLEB associated with activities that occur greater than 0.25 miles from a known hibernaculum site and greater than 150 feet from a known, occupied maternity roost from June 1-July 31. In accordance with ALP 2 and the final 4(d) rule (effective as of February 16, 2016), any incidental take that may result from associated activities is exempt under the 4(d) rule. **Therefore, this project is exempt under the 4(d) rule.**

### Bald eagle (*Haliaeetus leucocephalus*)

The Bald and Golden Eagle Protection Act,<sup>14</sup> enacted in 1940, prohibits anyone without a permit issued, from "taking" bald eagles, including their parts, nests, or eggs. Habitat for the bald eagle

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<https://connect.ncdot.gov/resources/environmental/pages/environmental-compliance-guides.aspx>

<sup>10</sup> United States Fish and Wildlife Service. 2016. 4(d) Rule for the Northern Long-Eared Bat; Final rule.

<https://www.gpo.gov/fdsys/pkg/FR-2016-01-14/pdf/2016-00617.pdf>

<sup>11</sup> USACE [http://saw-reg.usace.army.mil/NLEB/1-30-17-signed\\_NLEB-SLOPES&apps.pdf](http://saw-reg.usace.army.mil/NLEB/1-30-17-signed_NLEB-SLOPES&apps.pdf)

<sup>12</sup> The U.S. Fish and Wildlife Service (USFWS) 2016. <https://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>

<sup>13</sup> The U.S. Fish and Wildlife Service (USFWS) 2016. Northern Long-Eared Bat.

<sup>14</sup> <https://www.fws.gov/midwest/MidwestBird/eaglepermits/bagepa.html>

includes cliffs and forested areas typically within 1.0 mile of estuaries, large lakes, reservoirs, rivers, seacoast, and as they become more abundant, stands of undisturbed forest. A desktop-GIS assessment of the project study area, as well as, the area within a 1 mile radius of the project limits, was performed on July 13, 2020 using 2020 color aerials. No water bodies large enough or sufficiently open to be considered potential feeding sources were identified. According to the NCNHP database, there is one occurrence of this species within 1.0 mile of the project study area (Element Occurrence Rank of Extant, last observation in 2015). However, since there was no foraging habitat within the review area, a survey of the project study area and the area within the project limits was not conducted. Additionally, the site is surrounded by urban areas. No bald eagles or bald eagle nests were observed within the study area at the time of the site visit. Due to the lack of optimal habitat within the project limits, as the site is located within an urban landscape, **CWS concludes that this project will have no effect on this species.**

### Summary

Based on the literature search and the results of the on-site assessment for suitable habitat of federally-protected endangered, and threatened species, suitable habitat was not observed within the project limits for dwarf-flowered heartleaf or bald eagle. Potential habitats for Schweinitz’s sunflower were observed within the project limits, but no *Helianthus* species were observed during the site visit. CWS has concluded that activities within the project area will not directly or indirectly jeopardize the continued existence of Schweinitz’s sunflower, dwarf-flowered heartleaf, or bald eagle.

Based on the project area location, no tree removal activities will occur within a 150-foot radius of a known, occupied NLEB maternity roost from June 1-July 31 and no trees will be removed within 0.25 miles of a known hibernaculum at any time of year. Therefore, any incidental take on NLEB that may result from associated activities is exempt under the 4(d) rule and notifications will follow the SLOPES agreement<sup>15</sup>.

Biological determinations requirements for federally protected species are summarized in Table 2.

**Table 2. Biological Determination Requirements Summary Table for Federally Protected Species**

Scientific Name	Common Name	Federal Status*	Effect on Listed Species	Biological Determination Required
<i>Helianthus schweinitzii</i>	Schweinitz's sunflower	E	No Effect	No
<i>Hexastylis naniflora</i>	Dwarf-flowered heartleaf	T	No Effect	No
<i>Myotis septentrionalis</i>	Northern-long-eared bat	T	Exempt	Yes**
<i>Haliaeetus leucocephalus</i>	Bald eagle	BGPA	No Effect	No

\* E - Endangered, T - Threatened, BGPA - Bald and Golden Eagle Protection Act

\*\* - Required in accordance with SLOPES, ALP 2 agreement

<sup>15</sup> [http://www.fws.gov/asheville/htmls/project\\_review/NLEB\\_in\\_WNC.html](http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html)

A biological assessment was not conducted for this project. All biological determinations of effect represent the best professional opinion of CWS and are not official determinations of effect. It is the responsibility of the lead federal agency to render an official determination of effect. Should the lead federal agency agree with CWS's initial findings of no effect, then no USFWS consultation is required to comply with Section 7 of the Endangered Species Act. Should the lead federal agency's determination of effect differ from the findings of CWS, formal or informal consultation with USFWS may be required.

Thank you for the opportunity to provide these services on this important project. Please do not hesitate to contact Aliisa Harjuniemi at 980-259-1222 or aliisa@cws-inc.net should you have any questions or comments regarding this report.

Sincerely,

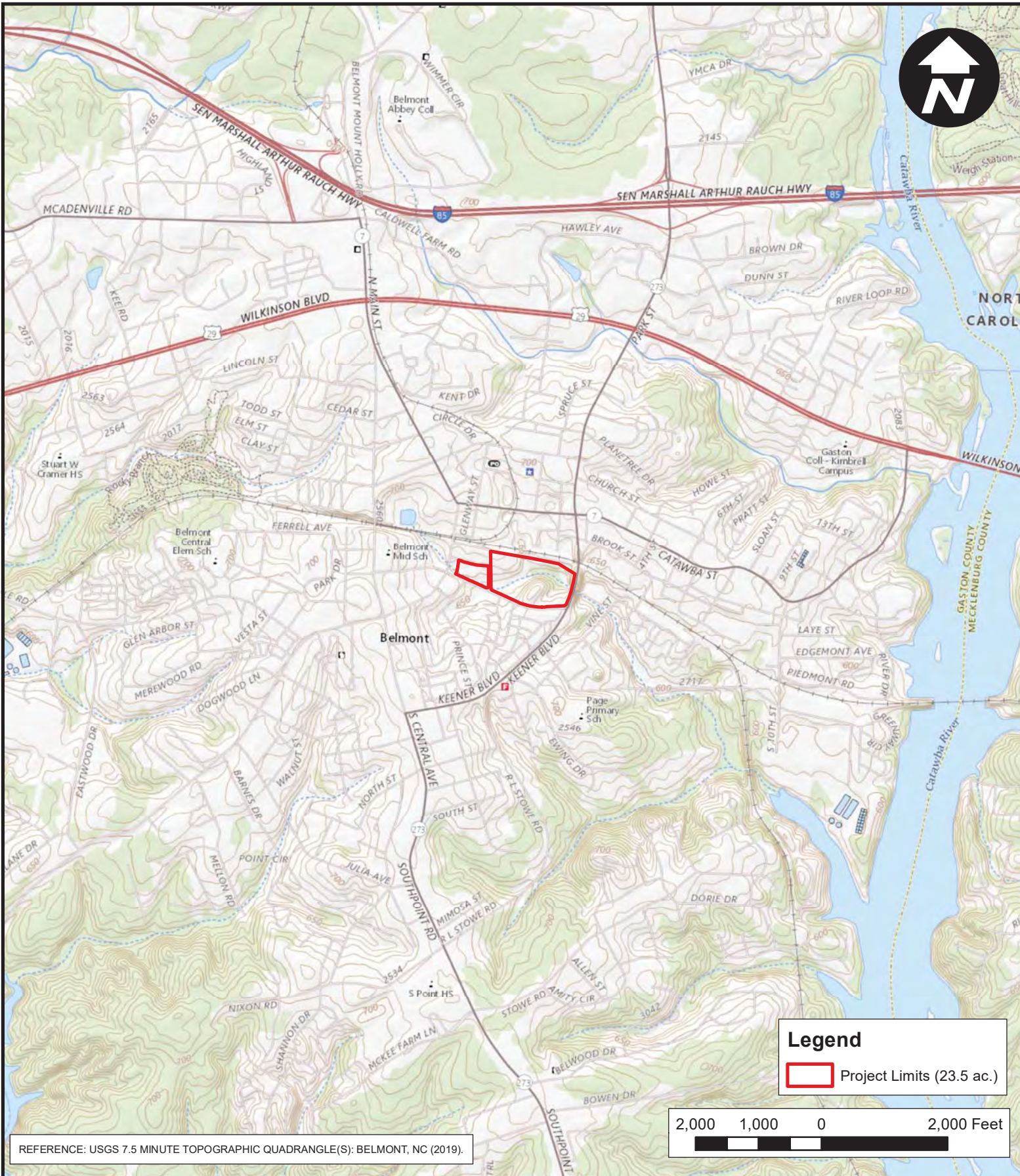


Megan Bollero, WPIT  
Project Scientist




Aliisa Harjuniemi, PWS  
Senior Project Manager

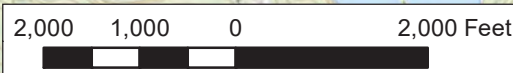
Attachments: Figure 1: USGS Topographic Map  
Figure 2: USDA-NRCS Web Soil Map of Gaston County  
Figure 3: Aerial Map  
Attachment A: NCNHP Data Review Report  
Attachment B: Representative Photographs (1-8)



REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE(S): BELMONT, NC (2019).

**Legend**

 Project Limits (23.5 ac.)



SCALE: 1 inch = 2,000 feet	DATE: 7/13/2020
CWS PROJECT NO: 2020-0122	DRAWN BY: ALH
COORDINATES: 35.240622, -81.034238	CHECKED BY: AVH

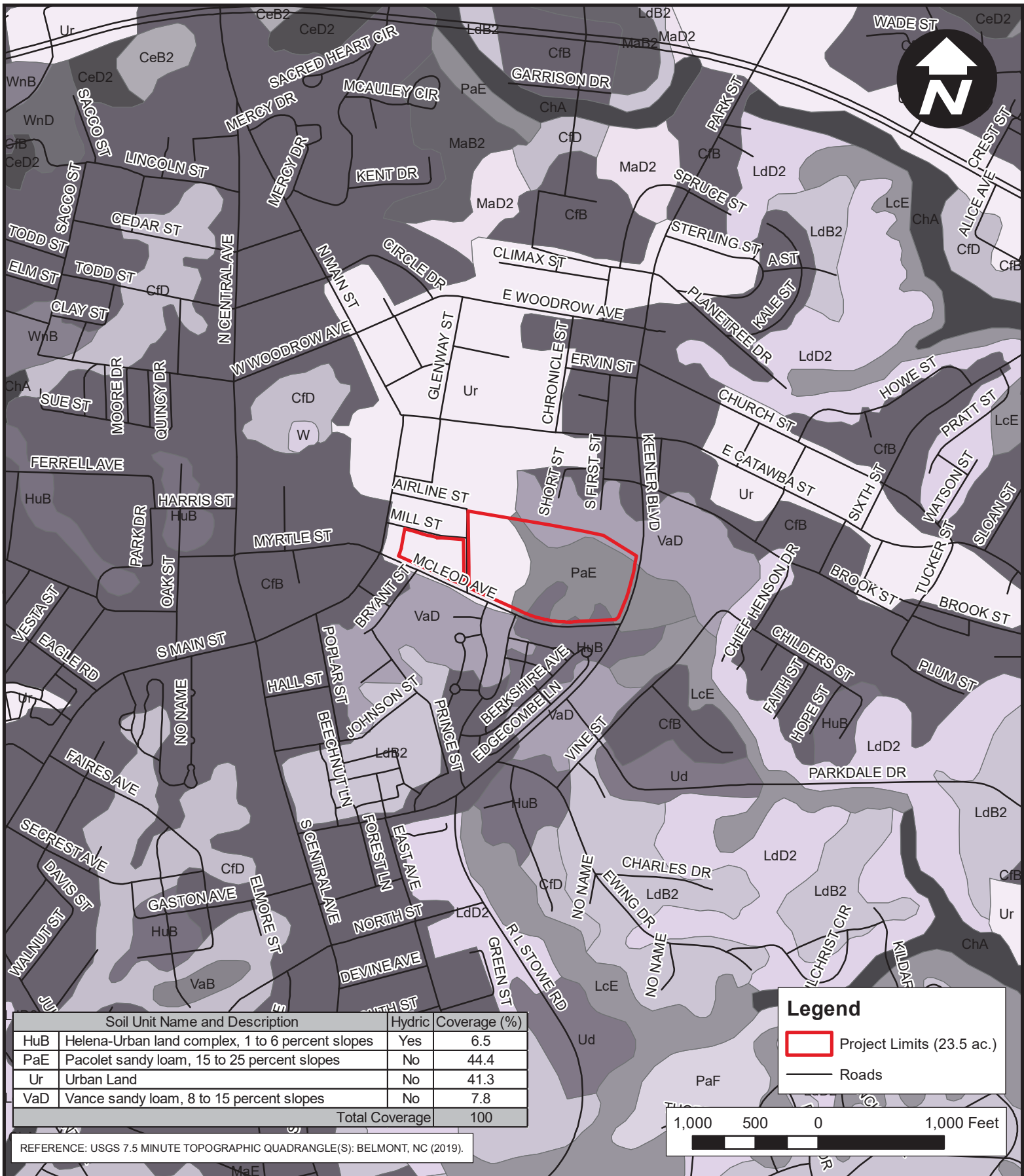


**USGS Topographic Map**

**Imperial Mill Belmont**  
**Gaston County**  
**Belmont, North Carolina**

FIGURE NO.

**1**



Soil Unit Name and Description	Hydric	Coverage (%)
HuB Helena-Urban land complex, 1 to 6 percent slopes	Yes	6.5
PaE Pacolet sandy loam, 15 to 25 percent slopes	No	44.4
Ur Urban Land	No	41.3
VaD Vance sandy loam, 8 to 15 percent slopes	No	7.8
Total Coverage		100

**Legend**

- Project Limits (23.5 ac.)
- Roads



REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE(S): BELMONT, NC (2019).

SCALE: 1 inch = 1,000 feet	DATE: 7/13/2020
CWS PROJECT NO: 2020-0122	DRAWN BY: ALH
COORDINATES: 35.240622, -81.034238	CHECKED BY: AVH



**USDA-NRCS Web Soil Survey  
of Gaston County**

**Imperial Mill Belmont  
Gaston County  
Belmont, North Carolina**

FIGURE NO.  
**2**





REFERENCE: BACKGROUND AERIAL IMAGERY PROVIDED BY ESRI, ACCESSED 2020. BACKGROUND GIS LAYER(S) PROVIDED BY GASTON COUNTY GIS DEPARTMENT, DATED 2020.  
 NOTE: CWS CONDUCTED THE HABITAT ASSESSMENT AND DELINEATION ON JULY 14, 2020.  
 JURISDICTIONAL FEATURES HAVE NOT BEEN VERIFIED BY THE USACE.

**Legend**

- Project Limits (23.5 ac.)
- Potential Schweinitz's Sunflower Habitat
- Intermittent Stream
- Perennial Stream
- Forested Wetland
- Culvert
- Roads
- Tax Parcels
- ➔ Photo Location and Direction



SCALE: 1 inch = 250 feet	DATE: 7/16/2020		<b>Aerial Map</b>	FIGURE NO.
CWS PROJECT NO: 2020-0122	DRAWN BY: ALH		Imperial Mill Belmont Gaston County Belmont, North Carolina	<b>3</b>
COORDINATES: 35.240622, -81.034238	CHECKED BY: AVH			

ATTACHMENT A:  
NCNHP Data Review Report



Roy Cooper, Governor  
Susi Hamilton, Secretary  
Walter Clark, Director, Land and Water Stewardship

NCNHDE-12452

July 13, 2020

Amie Hoy  
Carolina Wetland Services  
550 East Westinghouse Blvd  
Charlotte, NC 28273  
RE: Imperial Mill Belmont; 2020-0122

Dear Amie Hoy:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

Based on the project area mapped with your request, a query of the NCNHP database indicates that there are no records for rare species, important natural communities, natural areas, and/or conservation/managed areas within the proposed project boundary. Please note that although there may be no documentation of natural heritage elements within the project boundary, it does not imply or confirm their absence; the area may not have been surveyed. The results of this query should not be substituted for field surveys where suitable habitat exists. In the event that rare species are found within the project area, please contact the NCNHP so that we may update our records.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists. Tables of natural areas and conservation/managed areas within a one-mile radius of the project area, if any, are also included in this report.

If a Federally-listed species is found within the project area or is indicated within a one-mile radius of the project area, the NCNHP recommends contacting the US Fish and Wildlife Service (USFWS) for guidance. Contact information for USFWS offices in North Carolina is found here: <https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37>.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

The NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve, Registered Heritage Area, Clean Water Management Trust Fund easement, or Federally-listed species are documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact Rodney A. Butler at [rodney.butler@ncdcr.gov](mailto:rodney.butler@ncdcr.gov) or 919-707-8603.

Sincerely,  
NC Natural Heritage Program

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area  
 Imperial Mill Belmont  
 Project No. 2020-0122  
 July 13, 2020  
 NCNHDE-12452

Element Occurrences Documented Within a One-mile Radius of the Project Area

Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Amphibian	38441	<i>Eurycea quadridigitata</i>	Dwarf Salamander	1974-04-02	H	4-Low	---	Special Concern	G5	S1
Bird	8391	<i>Haliaeetus leucocephalus</i>	Bald Eagle	2015-02	E	3-Medium	Bald/Golden Eagle Protection Act	Threatened	G5	S3B,S3 N
Vascular Plant	28867	<i>Carex bushii</i>	Bush's Sedge	1983-08-20	H?	3-Medium	---	Significantly Rare Peripheral	G4	S1

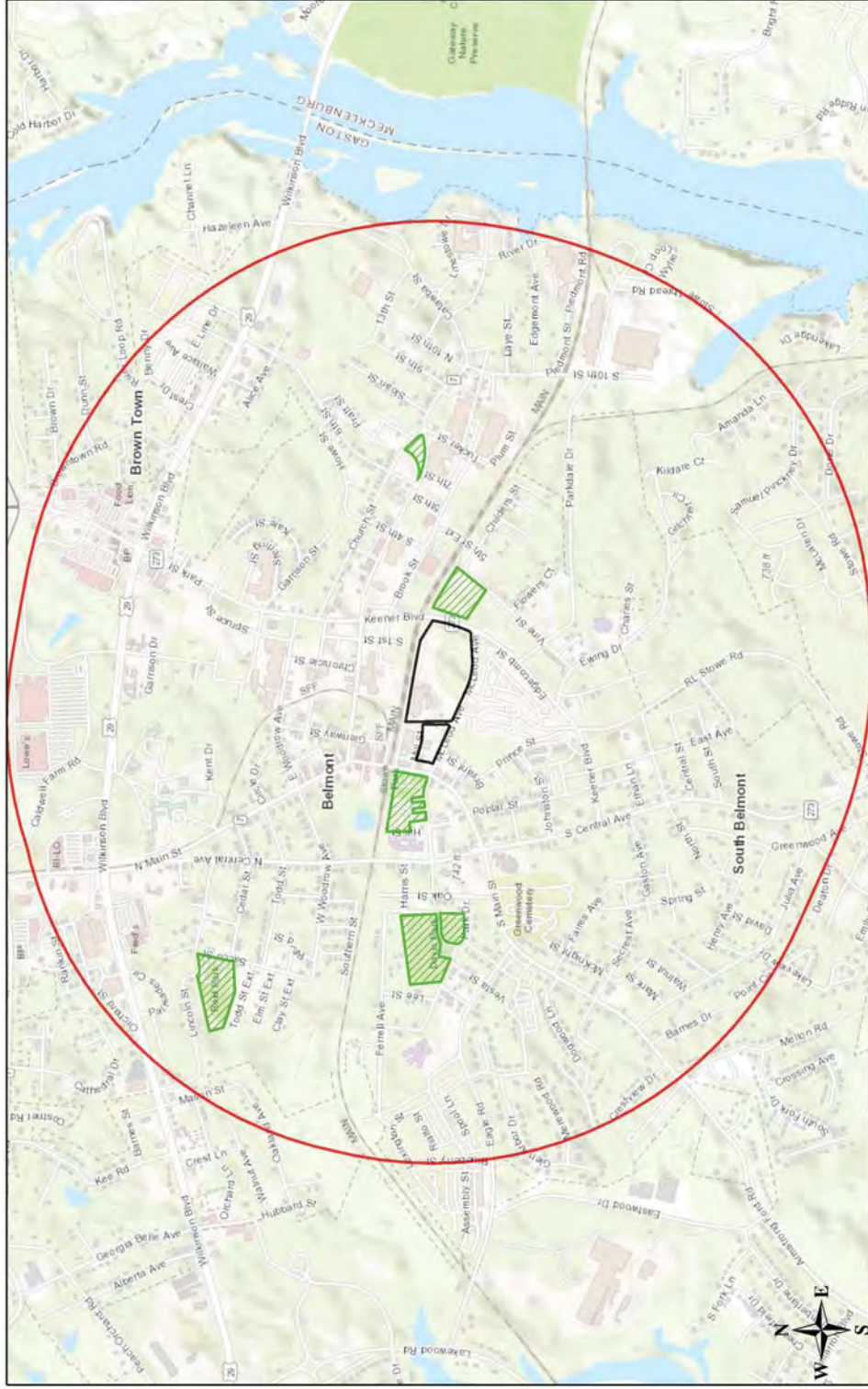
No Natural Areas are Documented Within a One-mile Radius of the Project Area

Managed Areas Documented Within a One-mile Radius of the Project Area




Managed Area Name	Owner	Owner Type
Gaston County Open Space	Gaston County: multiple local government	Local Government

Definitions and an explanation of status designations and codes can be found at <https://ncnhde.natureserve.org/help>. Data query generated on July 13, 2020; source: NCNHP; Q2 Apr 2020. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

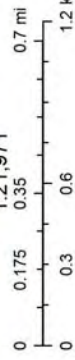
# NCNHDE-12452: Imperial Mill Belmont



July 13, 2020

-  Project Boundary
-  Buffered Project Boundary
-  Managed Area (MAREA)

1:21,971



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

ATTACHMENT B:  
Photopage (Photographs 1-8)



Photograph 1. View of potential habitat for Schweinitz's sunflower, facing northeast.



Photograph 2. View of potential habitat for Schweinitz's sunflower, facing southeast.



Photograph 3. View of potential habitat for Schweinitz's sunflower, facing northwest.



Photograph 4. View of unsuitable habitat for Schweinitz's sunflower and dwarf-flowered heartleaf, facing southeast.





Photograph 5. View of unsuitable habitat for Schweinitz's sunflower and dwarf-flowered heartleaf, facing north.



Photograph 6. View of unsuitable habitat for Schweinitz's sunflower and dwarf-flowered heartleaf, facing southwest.



Photograph 7. View of unsuitable habitat for Schweinitz's sunflower and dwarf-flowered heartleaf, facing southeast.



Photograph 8. View of Schweinitz's sunflower reference population (7.14.2020)