

*Threatened and Endangered Species  
Habitat Suitability Assessment Report*

Edgewater  
22 Edgewater Place  
City of Beacon, New York

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## 1.0 INTRODUCTION

Ecological Solutions, LLC completed a threatened and endangered species habitat suitability assessment on the Edgewater Site containing four parcels (5954-25-581985, 5955-19-590022, 5954-25-566983 and 5954-25-574979) totaling 12 acres located at 22 Edgewater Place in the City of Beacon, Dutchess County, New York. The project consists of the development of approximately 307 residential units, which will be a mix of studio, one-bedroom, two-bedroom and three-bedroom units.

Correspondence from the New York State Department of Environmental Conservation (NYSDEC) dated March 30, 2017 indicated that the Indiana bat (*Myotis sodalis*) may be potentially located on or in the vicinity of the site. This assessment was completed to determine if suitable habitat exists on the site, potential impacts to suitable habitat, and recommends measures to mitigate the impacts that can not be avoided or minimized.

Habitat was observed on the site on September 13, 2017 is listed in Table 1.

**TABLE 1**  
**COVER TYPE IDENTIFIED ON THE SITE**

1	Upland Forest and Developed Area
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**Upland Forest and Developed Area:** The site contains about 5 acres of upland forest, with the remaining acreage that generally consists of the interior of the site being comprised of young wood component associated with previously impacted area including asphalt driveway remains, concrete remains, and existing structures. Vegetation ranges from sparse to thick. This site contains approximately 5 acres of wooded habitat around the perimeter including along Bank Street, and the bluff area at the western section of the site as well as the northern site boundary. Trees include (Norway and red maple, black walnut, oaks, ash, cottonwood, black locust, sumac, and others) in the 3-6 inch dbh range with several dozen larger 18+inch dbh also sporadically located in the woods around the site perimeter. The trees located on the approximately 7 acre interior portion of the site are generally comprised of smaller trees characterized by opportunistic colonization.

## 2.0 HABITAT SUITABILITY ASSESSMENT/CONCLUSION

### 2.1 Indiana bat

The Indiana bat typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. Suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive) or snags with exfoliating or defoliating bark, or containing cracks or crevices that could potentially be used by Indiana bats as a roost. The minimum diameter of roost trees observed to date is 2.5 inches for males and 4.3 inches for females. However, maternity colonies generally use trees greater than or equal to 9 inches dbh, and generally, the smaller trees located on the interior of the site consist of opportunistic trees that are not prime for Indiana bat habitat. Overall, roost tree structure appears to be more important to Indiana bats than a particular tree species or habitat type. Females appear to be more habitat specific than males presumably because of the warmer temperature requirements associated with gestation and rearing of young. As a result, they are generally found at lower elevations than males may be found. Roosts are warmed by direct exposure to solar radiation, thus trees exposed to extended periods of direct sunlight are preferred over those in shaded areas. However, shaded roosts may be preferred in very hot conditions. As larger trees afford a greater thermal mass for heat retention, they appear to be preferred over smaller trees.

Streams associated with floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for Indiana bats, some of which may fly up to 2-5 miles from upland roosts on a regular basis. Indiana bats also forage within the canopy of upland forests, over clearings with early successional vegetation (*e.g.*, old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures. While Indiana bats appear to forage in a wide variety of habitats, they seem to tend to stay fairly close to tree cover.

**Conclusion** - The proposed project will require the removal of approximately 3.2 acres of woods for the proposed project, which generally involves smaller trees located on the interior of the site that consist of opportunistic trees that are not prime for Indiana bat habitat. The site construction activities will result in short and long term effects including: loss of the 3.2 acres of wooded habitat, generation of dust and noise, and increased lighting on the site.

The applicant proposes to avoid, minimize, and mitigate for these effects by:

- Implementing tree clearing for site construction during timeframes when bats are not resident on the site October 1 – to March 31 for site construction;
- Site lighting on the site will use City of Beacon Planning Board approved light fixtures that have tops that direct light down to minimize light pollution and not interfere with potential bat foraging activities and;
- Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti tracking pads to prevent erosion and sedimentation in surface waters on the site.

In addition, the site will be extensively landscaped and new trees planted which be potentially beneficial to the species. Additionally, certain trees will not be removed as discussed between the Applicant and the Planning Board.

### 3.0 PHOTOGRAPHS

Woods along Bank Street.





General wooded habitat.



This is a detailed plat map of a portion of the City of Albany, New York. The map shows various lots and streets. A large shaded area is labeled '590022 10.56 Ac.(d)'. Other lots are labeled with addresses such as 648034, 651033, 655032, 661031, 671031, 665022, 662011 1 Ac.(c), 641208, 643025, 642022, 641015, 641208, 648085, 648086, 648087, 648088, 648089, 648090, 648091, 648092, 648093, 648094, 648095, 648096, 648097, 648098, 648099, 648100, 648101, 648102, 648103, 648104, 648105, 648106, 648107, 648108, 648109, 648110, 648111, 648112, 648113, 648114, 648115, 648116, 648117, 648118, 648119, 648120, 648121, 648122, 648123, 648124, 648125, 648126, 648127, 648128, 648129, 648130, 648131, 648132, 648133, 648134, 648135, 648136, 648137, 648138, 648139, 648140, 648141, 648142, 648143, 648144, 648145, 648146, 648147, 648148, 648149, 648150, 648151, 648152, 648153, 648154, 648155, 648156, 648157, 648158, 648159, 648160, 648161, 648162, 648163, 648164, 648165, 648166, 648167, 648168, 648169, 648170, 648171, 648172, 648173, 648174, 648175, 648176, 648177, 648178, 648179, 648180, 648181, 648182, 648183, 648184, 648185, 648186, 648187, 648188, 648189, 648190, 648191, 648192, 648193, 648194, 648195, 648196, 648197, 648198, 648199, 648200, 648201, 648202, 648203, 648204, 648205, 648206, 648207, 648208, 648209, 648210, 648211, 648212, 648213, 648214, 648215, 648216, 648217, 648218, 648219, 648220, 648221, 648222, 648223, 648224, 648225, 648226, 648227, 648228, 648229, 648230, 648231, 648232, 648233, 648234, 648235, 648236, 648237, 648238, 648239, 648240, 648241, 648242, 648243, 648244, 648245, 648246, 648247, 648248, 648249, 648250, 648251, 648252, 648253, 648254, 648255, 648256, 648257, 648258, 648259, 648260, 648261, 648262, 648263, 648264, 648265, 648266, 648267, 648268, 648269, 648270, 648271, 648272, 648273, 648274, 648275, 648276, 648277, 648278, 648279, 648280, 648281, 648282, 648283, 648284, 648285, 648286, 648287, 648288, 648289, 648290, 648291, 648292, 648293, 648294, 648295, 648296, 648297, 648298, 648299, 648300, 648301, 648302, 648303, 648304, 648305, 648306, 648307, 648308, 648309, 648310, 648311, 648312, 648313, 648314, 648315, 648316, 648317, 648318, 648319, 648320, 648321, 648322, 648323, 648324, 648325, 648326, 648327, 648328, 648329, 648330, 648331, 648332, 648333, 648334, 648335, 648336, 648337, 648338, 648339, 648340, 648341, 648342, 648343, 648344, 648345, 648346, 648347, 648348, 648349, 648350, 648351, 648352, 648353, 648354, 648355, 648356, 648357, 648358, 648359, 648360, 648361, 648362, 648363, 648364, 648365, 648366, 648367, 648368, 648369, 648370, 648371, 648372, 648373, 648374, 648375, 648376, 648377, 648378, 648379, 648380, 648381, 648382, 648383, 648384, 648385, 648386, 648387, 648388, 648389, 648390, 648391, 648392, 648393, 648394, 648395, 648396, 648397, 648398, 648399, 648400, 648401, 648402, 648403, 648404, 648405, 648406, 648407, 648408, 648409, 648410, 648411, 648412, 648413, 648414, 648415, 648416, 648417, 648418, 648419, 648420, 648421, 648422, 648423, 648424, 648425, 648426, 648427, 648428, 648429, 648430, 648431, 648432, 648433, 648434, 648435, 648436, 648437, 648438, 648439, 648440, 648441, 648442, 648443, 648444, 648445, 648446, 648447, 648448, 648449, 648450, 648451, 648452, 648453, 648454, 648455, 648456, 648457, 648458, 648459, 648460, 648461, 648462, 648463, 648464, 648465, 648466, 648467, 648468, 648469, 648470, 648471, 648472, 648473, 648474, 648475, 648476, 648477, 648478, 648479, 648480, 648481, 648482, 648483, 648484, 648485, 648486, 648487, 648488, 648489, 648490, 648491, 648492, 648493, 648494, 648495, 648496, 648497, 648498, 648499, 648500, 648501, 648502, 648503, 648504, 648505, 648506, 648507, 648508, 648509, 648510, 648511, 648512, 648513, 648514, 648515, 648516, 648517, 648518, 648519, 648520, 648521, 648522, 648523, 648524, 648525, 648526, 648527, 648528, 648529, 648530, 648531, 648532, 648533, 648534, 648535, 648536, 648537, 648538, 648539, 648540, 648541, 648542, 648543, 648544, 648545, 648546, 648547, 648548, 648549, 648550, 648551, 648552, 648553, 648554, 648555, 648556, 648557, 648558, 648559, 648560, 648561, 648562, 648563