

**APEX ENVIRONMENTAL ADVISORY BOARD
MEETING MINUTES**

Meeting Date:
November 18th, 2021
6:00 p.m.



Remote Meeting
Details located on the Town website:
<https://www.apexnc.org/calendar.aspx>

**ENVIRONMENTAL
ADVISORY BOARD
MEMBERS:**

Katie Schaaf, Chair
Suzanne Mason, Vice Chair
Patrick Adams
John Garrison
Bill Jensen

Kim Pierson
Greg Reger
Mike Rusher
Marilee Szczerbala

Call to Order & Roll Call

The remote Environmental Advisory Board (EAB) meeting was called to order by Chair Katie Schaaf at 6:01p.m. Members present were Chair Schaaf, Vice Chair Suzanne Mason, and Board members Patrick Adams, Bill Jensen, Kim Pierson, Greg Reger, and Mike Rusher. Board members John Garrison and Marilee Szczerbala were absent.

Councilmember Brett Gantt was in attendance. Town staff members present were Planner II Shelly Mayo, Senior Engineer Stan Fortier, Sustainability Specialist Valeria Mera, and non-voting staff secretary Sustainability Coordinator Megan Pendell. Members of the public had access to the meeting through the Town of Apex YouTube livestream page.

Approval of Minutes

Chair Schaaf asked the Board if there were any comments on the meeting minutes from October 21, 2021. Hearing none, Board member Pierson made a motion to approve the minutes, seconded by Vice Chair Mason and the motion passed unanimously.

Announcements

No announcements were made.

Committee Updates

The Tree Citizens Advisory Panel (CAP) next meets on December 2nd. Vice Chair Mason attended the meeting as the Board liaison, and introduced the EAB Suggested Environmental Zoning Conditions list. Any suggestions that Tree CAP members provide for the list will be reported to their staff liaison Mark Siburt by December 14th. One suggestion discussed at the meeting was to reorganize the list into "Residential" and "Commercial" sections.

The Bee City Committee next meets on December 15th. Board member Szczerbala will attend as the Board liaison and introduce the Conditions List, as well.

The Apex Sustainability Coalition (ASC), formerly known as the Apex Community Coalition, meets on December 6th. The members are currently building organization identity and establishing social media, as well as pursuing non-profit status.

Chair Schaaf asked when there would be an opportunity to discuss the proposed Conditions list amendments based on Tree CAP and Bee City Committee feedback. Staff member Pendell will add an item for discussion in the December Agenda.

Pre-Application Meeting: Project Real

Staff member Pendell admitted two representatives for the rezoning project, Project Real, into the remote meeting access. The project representatives were Maggie Houston with Beacon Development and Danielle Hammond with Kimley Horn. Project representative Houston explained that the property is currently in Chatham County, presenting a unique situation since there are currently no properties that are in both Chatham County and the Town of Apex. The applicants are applying to annex this property to the Town and rezone it simultaneously.

Constraints and concerns include:

- Anticipated Department of Transportation improvements on the front of US Hwy 64 and NC 751.
- Confusion over divisions and districts belong to either Wake or Chatham County on eastern side of the property.
- Army Corp of Engineers owns property near the rear parcel due to the floodplains adjacent to it, which will not be developed.
- Wetland Study has been done. There are perennial, intermittent streams, and wetlands, and have associated 50 ft and 100 ft buffers. The wetlands consultant is in the process of setting up a riparian buffer determination with Town of Apex, as well as walking it with Army Corp of Engineers and NCDEQ. The wetland consultant will perform an analysis for threat to endangered species.

Final building design will be controlled by the ultimate end user and applicants shared an updated site plan and proposed plan for two larger industrial buildings for headquarter relocation for two different tenants. The intention is to bring another headquarters and/or facility similar to a previous development, Project Delta, which will go above the ordinance as much as possible and bring economic opportunity to the town.

Items and questions discussed with the Board include:

- Environmentally Sensitive Location of Project. If possible, it would be beneficial to add additional protective areas, especially around the northern parcel, given the following:
 - Proximity to Jordan Lake and water supply watershed area, a concern demonstrated by the Board. Through the Rezoning Process, Staff can continue to work on conditions that would address those types of concerns, i.e. limit the types of manufacturing and processes uses in an effort to reduce the impact on the lake.
 - Game Land Hunting Safety Buffer close to the back parcel and corners of original parcel, published by the Wildlife Resource Commission (WRC). A 150-meter buffer is recommended around the game land to reduce conflict between hunters and site occupants.
 - A portion of the northern parcel is in the WRC Smoke Awareness Program and is likely to experience smoke from prescribed burning of game and Army Corp land. Recommended a half-mile buffer around lands that are managed with fire.
 - Property adjacent to the White Oak Creek Natural Heritage Area was identified by the State and deemed important for biodiversity and wildlife habitat. This particular area does contain a number of high quality ecological natural communities and wildlife habitats.
 - Proximity to bald eagle nests, which are within a mile, so they will be required to conduct bald eagle surveys.
 - The location is a major intersection for employment and deliveries since it is on the corner of US Highway 64 and NC 751.
- Schematic for Northern Parcel. The second building has gotten larger and has been reoriented so it stays out of the eastern portion of environmental features, with plans for a Stormwater Control Measure (SCM) to be placed there as well.
- RCA Requirement. There is a 30% RCA requirement for this project. The intention is to incorporate it into southeastern part of the site where there will be stream protections.

- Solar Panels. Recommendations noted even if applicant does not feel they can commit to them. Unlikely to be able to construct solar panels but would be able to bring the idea of a Solar Leasing program through the Town to the client. The Town has never leased rooftop solar space before, and Staff will work internally to determine feasibility.
- Proposed Uses. More refined list resulting from TRC meeting, but would prefer to not limit options because they are looking at different tenant opportunities. Will be working with Planning Staff to ensure that the proposed uses would not be violating any State Environmental Regulations.
- Water Quality. Sewer frequently needs to be located near the riparian buffer or else it becomes very difficult and expensive to maintain because of the pump stations needed. This conflicts with the suggested condition to not allow for tree clearing, SCM, or infrastructure in either zone of riparian buffer. The condition staff has been recommending instead is that no tree clearing will be permitted other than for water and/or sewer installation within the riparian buffer.

Summary of Recommendations:

- Install solar PV systems on each of the buildings that provide 100% of the expected electrical energy usage, or 500 kilowatt systems, whichever is less.
- Consider leasing the remaining rooftop open areas to the Town of Apex for solar PV installations.
- Existing trees greater than 18” in diameter that are removed by site development shall be replaced by planting a 1.5” caliper native tree from the Town of Apex Design and Development Manual either on-site or at an alternative location approved by Town Planning Staff, above and beyond standard UDO requirements.
- Remove Manufacturing and Processing as well as Laboratory, Industrial Research from the list of proposed uses.
- Water Quantity
 - Increase design storm for retention basins in flood-prone areas.
 - Increase design storm pre- and post-attenuation requirement to the 25-year storm.
- Water Quality
 - Increase riparian buffer widths from surface waters in environmentally sensitive areas.
- Add a zoning condition which minimizes tree clearing, SCM, or infrastructure in either zone of the riparian buffer, except as necessary for the installation of Town of Apex utilities.
 - Install signage near environmental sensitive areas in order to:
 - Eliminate fertilizer near SCM drainage areas.
 - Implement low impact development (LID) techniques as defined by the NC Department of Environmental Quality.
 - Increase pervious surface.
 - Install pervious pavements where practicable (e.g. when parking maximums are exceeded).
- Planting & Landscaping
 - Preserve tree canopy where possible and replace with native trees where unable to preserve.
 - Plant trees designed for efficiency.
 - Include landscaping that requires less irrigation.
 - Install signage near RCA.
- Lighting Efficiency
 - Include energy efficient lighting in building design.
 - Lower maximum foot-candles outside of buildings.
 - Install timers or light sensors or smart lighting technology.
 - Incorporate natural lighting techniques into building design.
 - Include International Dark Sky Association compliance standards.
 - Outdoor lighting shall be shielded in a way that focuses lighting to the ground.
 - Lighting that minimizes the emission of blue light to reduce glare shall be used.
 - Lighting with a color temperature of 3000K or less shall be used for outside installations.

Board member Pierson made a motion to approve, emphasizing the importance of mitigating the negative impact that lighting could have on wildlife. Vice Chair Mason also highlighted minimizing the exterior building light and parking lot lights. The motion was seconded by Board member Reger, and passed unanimously.

Arden at Apex

Staff member Pendell admitted four representatives for the rezoning project, Arden at Apex, into the remote meeting access. The project representatives were Scott Krusell, Justin Brown, Kevin Woodley, and Matthew Carpenter.

The applicants are proposing to build up to 170 units of independent living on a 12-acre site, less than a quarter mile from the intersection of Jenks Road and US-64. The concept is a more affordable senior living site that charges a lower monthly rate, while other services are paid for at an a la carte basis. Approximately 145 units will be in the main, four-story building. A handful of single level cottages will be provided at the rear of the property. About three acres at the front of the property will be allocated for non-residential use. Properties directly across the street to the north are apartments, townhomes, and future commercial. The project team has not fully developed the concept plans or a full list of conditions or design standards that would be included in the final submittal. The current plan is to request a Planned Unit Development zoning (PUD) to allow a maximum of 170 senior units on northern portion of the site and allow for commercial use on the southern portion of the site. The applicants will consider proposed conditions from the Board in the concept plan and finalize PUD conditions. The applicant did complete an environmental assessment which did not show any environmental issues. They plan to conduct a tree survey that will be completed prior to filing the application, and have also requested a jurisdictional determination from the Army Corp, though the applicants do not anticipate there will be jurisdictional streams.

Items and questions discussed with the Board include:

- Solar. The Board proposed to look into a 40-kW array across the whole system, but applicants stated they could not commit to that yet. Currently designing the buildings to see if A/C units can be kept off the ground and placed on the roof and would have to explore if this can be rearranged in order to accommodate for solar. Planning staff commented an additional option for solar would be solar panels on carports in the parking lot. They could potentially power the EV charging stations, as well.
- RCA. There is a 25% RCA requirement and most of it will be composed of perimeter landscape buffers, riparian buffers, or SCMs. The commercial side of this property will be included as consistent with the Town Land Use Plan. There are about 11 acres of mixed pine and hardwoods and it is uncertain whether it will be preserved or graded until the tree survey is done. Most of the front area of the property will have a 30-foot undisturbed buffer. Dedicated ROW grading is allowed to be replanted, which the project team intends for native plantings, as well as in the areas on the east side and southern corner of the property. Any buffers used to meet the RCA requirement are not permitted to be cleared, other than for road improvements. This parcel will need to dedicate ROW to account for the Department of Transportation widening of Jenks Road.
- Buffer. The Board recommended a wider buffer between the two internal use areas of commercial and nonresidential.
- Roof Structure. The Town cannot enforce a requirement to build roofs to accommodate future solar panels anymore due to new change in State law that requires approval of building permits if minimum building code standards are met.
- Signage. Board asked that signage installed on the property be specific to reduce pet waste and eliminate fertilizer near SCM Drainage areas.

Summary of Recommendations:

- Pet waste stations shall be installed, at least two.

- Install signage near environmentally sensitive areas in order to:
 - Reduce pet waste near SCM drainage areas.
 - Eliminate fertilizer near SCM drainage areas.
- Solar conduit shall be included in building designs.
- EV charging stations shall be installed according to the UDO requirement.
- Light sensors shall be installed on exterior lights.
- Outdoor lighting shall be shielded in a way that focuses lighting to the ground.
- Recommend that roof structures be designed to accommodate solar PV systems.
- Recommend a minimum of 40 kW of solar PV be installed during construction.
- Water Quantity
 - Increase design storm pre- and post-attenuation requirement to the 100-year storm.
- Water Quality
 - Install pervious pavements where practicable (e.g. when parking maximums are exceeded).
- Planting and Landscaping
 - Increase perimeter buffer requirements, especially in transitional areas between the PUDs (nonresidential to residential areas).
 - Recommend adding Planting and Landscaping standard (II. c, d and f) options such as planting pollinator-friendly flora, native flora, diverse and abundant pollinator bird food sources, and planting warm season grasses.

Vice Chair Mason made a motion to approve the list of recommendations as amended, seconded by Board member Rusher, and the motion passed unanimously.

Chapel Ridge PUD

Staff member Mayo explained that this project is coming before the Board a second time because the original rezoning application was declined by Town Council due to density and nearby school capacity. Staff member Pendell admitted two representatives for the rezoning project, Chapel Ridge PUD, into the remote meeting access. The project representatives were Ed Tang of Withers Ravenel Engineering and Jason Barron of Morningstar Law Group.

Conceptually, this is still a townhome project but the style of the units is changing. The original proposal was for a maximum of 120 three-story units; the revised project has been reduced to a maximum of 100 two-story units. Biggest material difference is that it will be an age restricted senior community, influenced by the Town Council's concern with school capacity. The project team has included all conditions previously suggested by the EAB during their first meeting in this rezoning proposal.

Items and questions discussed with the Board include:

- Site Plan. The site plan is still being developed, but access points will remain the same and the pond in the north parcel will remain untouched. Much of the site plan will be very similar, but instead of having 6- to 7-unit townhome buildings, it will now have 4-unit town home buildings.
- Solar. The applicant has not had an opportunity to discuss solar with the client.

Summary of Recommendations:

- Provide pedestrian-friendly connections to the future Beaver Creek greenway expansion and surrounding neighborhoods.
- Install signage near environmentally sensitive areas in order:
 - Reduce pet waste near SCM drainage areas.
 - Eliminate fertilizer near SCM drainage areas.
- Increase biodiversity.
 - Plant pollinator-friendly flora.
 - Plant native flora (Refer to the Apex Design and Development Manual for approved native species).

- Implement green infrastructure.
 - Provide diverse and abundant pollinator and bird food sources (e.g. nectar, pollen, and berries from blooming plants) that bloom in succession from spring to fall.
- Include landscaping that requires less irrigation and chemical use.
 - Plant warm season grasses for drought-resistance.
 - Increase the number of native hardwood tree species planted to 3, preferably 4.
- Include solar conduit in building design.
- The homebuilder will provide EV charging outlets as an upgrade option to individual units.
- Install pet waste stations in neighborhoods.
- Include energy efficient lighting in building design.
 - Lower maximum foot-candles outside of buildings.
- Offer solar PV installations as an upgrade with or without EV charging stations.
- Recommend 220-volt outlet in all garages for future EV charging stations.

Board member Adams made a motion to approve the list of recommendations, seconded by Board member Pierson, and the motion passed unanimously.

Sears PUD

Staff member Pendell admitted two representatives for the rezoning project, Sears PUD, into the remote meeting access. The project representatives were Jeff Roach of Peak Engineering and Jason Barron of Morningstar Law Group.

Mr. Sears passed away and the family is selling 26 acres of land. The back portion of the property is to be medium density residential per the Land Use Plan, so townhomes are being proposed as workforce housing units that will have on-street surface parking instead of garages. The front portion of the property is intended for non-residential use, to be determined by the builder. Environmental consultants have identified wetlands and streams, and the project team is working with the Town and Army Corps of Engineers to classify the streams and wetlands.

Items and questions discussed with the Board include:

- Solar. Project representative Roach confirmed that the structural engineer verified that the roof is set up to be 2.5 pounds per square foot, thus the roof has the capacity to support solar. Conduits for solar connection are included and the project team will offer information on solar to the residential builder so that they may provide it as an option.
- Buffer. The project team cannot commit to adding an additional riparian buffer width to the site given that the stream survey has not been completed yet.
- Placement of Stub-outs. The bottom righthand corner of the property connects to the adjacent property because the project team anticipates that property to be redeveloped in the future. Two stubs are located in the east, one north of the creek crossing and one south to avoid future environmental impacts if adjacent lots are further developed. The project team is working on access points with surrounding property owners.
- Workforce Housing. The project team defines workforce housing as between 60-120% of the area AMI. This project is using 80-100% as AMI range.
- Parking Lot. Staff has been advocating for this surface parking style and pleased to see it.
- SCM. Keeping the SCM out of Zones 1 and 2 is not an unreasonable request.
- Planting and Landscaping. The Board recommends to increase the buffer between residential and non-residential portions of the project. The applicant stated that a buffer is being provided naturally by wetland.

Summary of Recommendations:

- Install signage near environmental sensitive areas in order to:

- Reduce pet waste near SCM drainage areas.
- Eliminate fertilizer near SCM drainage areas.
- Preserve tree canopy and prioritize medium to large, healthy, desirable species.
 - Preserve existing trees (percentage-based).
 - Replace canopy (percentage- or DBH size-based) where there is sufficient space.
- Plant trees as designed for efficiency.
 - Plant deciduous shade trees on southern side of buildings.
 - Plant evergreen trees as a windbreak on northern side of buildings.
- Increase biodiversity.
 - Plant pollinator-friendly flora.
 - Plant native flora (Refer to the Apex Design & Development Manual for approved native species).
- Implement green infrastructure.
- Provide diverse and abundant pollinator and bird food sources (e.g. nectar, pollen, and berries from blooming plants) that bloom in succession from spring to fall.
- Include landscaping that requires less irrigation and chemical use.
 - Plant warm season grasses for drought-resistance.
- Increase the number of native hardwood tree species planted to 3, preferably 4.
- Install pet waste stations in neighborhoods.
- Include solar conduit in building design.
- Incorporate natural lighting techniques into building design.
- Include International Dark Sky Association compliance standards.
 - Outdoor lighting shall be shielded in a way that focuses lighting to the ground.
 - Lighting that minimizes the emission of blue light to reduce glare shall be used.
 - Lighting with a color temperature of 3000K or less shall be used for outside installations.
- All rooftops be designed to support the additional loads from solar PV installations. (2.5 pounds per sq. ft.).
- Install during construction solar PV systems of minimum 4 kW on thirty housing units (20% of housing units).
- Install a minimum of 10 kW solar on commercial building.
- Water Quality
 - Increase riparian buffer widths from surface waters in environmentally sensitive areas.
 - Add a zoning condition which minimizes tree clearing, SCM, or infrastructure in either zone of the riparian buffer, except as necessary for the installation of Town of Apex utilities.
 - Install signage near environmental sensitive areas in order to:
 - Reduce pet waste near SCM drainage areas.
 - Eliminate fertilizer near SCM drainage areas.
- Planting and Landscaping
 - Increase perimeter buffer requirements, especially in transitional areas (nonresidential to residential areas).
- Lighting Efficiency
 - Include energy efficient lighting in building design.
 - Lower maximum foot-candles outside of buildings.
 - Install timers or light sensors or smart lighting technology.

Board member Rusher made a motion to approve the list of recommendations, seconded by Board member Adams. Board member Jensen abstained, and the motion passed.

Presentation: Warm Season Grasses Recommendation

Staff member Pendell admitted Jeff Hastings, a non-voting member of the Planning Board and member of the Apex Historical Society. The presentation stems from the EAB Suggested Environmental Zoning Conditions list, on the topic of:

II. Planting and Landscaping

f. Include landscaping that requires less irrigation and chemical use.

i. Option 1: Plant warm season grasses for drought-resistance.

Hastings believes that this option and the term “warm season grasses” need to be refined with a focus on commercial developments. He will provide specific recommendations for the Board to include in the Conditions list. Staff member Mayo shared with the Board that her, Staff member Pendell, and Hastings met previously and discussed how the recommendations could be included in the UDO in the future.

A discussion on the future of planning for trees versus grass arose. Staff member Pendell shared feedback shared by absent Board member Garrison:

“Upon first glance, I don’t have a problem with modifying the landscaping section to incorporate some of these ideas. Things to think about though:

- Laying sod will increase the upfront costs on developers and the EAB can expect some pushback. But these are just recommendations and not requirements at this point.
- If carpetgrass is not a commonly used term in landscaping circles, it will need to be clarified as to what it means.
- I don’t have enough information to know if prohibiting certain warm season grasses as suggested is a good idea.”

Hastings clarified that if sod was more expensive than seeding, it would not be as widely popular in developments and the change in cost is minor. Further, he clarified that carpetgrass as a species is low maintenance, yet not necessarily advisable in a residential yard setting. Staff member Mayo stated that residential developments will always have sod, and most commercial developments will have sod in the front-facing areas. The only group she is aware of that does not use sod in public areas is Wake County Public School System because seed is less expensive.

Board member Rusher inquired about different turf grasses and their water efficiencies, which can be discussed in more detail once Staff has time to do more research. He also stated that it would be beneficial to add these grass recommendations to the template.

Board member Jensen suggested that the Board recommend minimizing lawns altogether and instead add planting areas in lieu of grass. Another option to suggest to developers, suggested by Staff member Mayo, would be to add drought tolerant native plantings as an option.

Staff member Pendell will send a summary of the grass research and discussion to the Board, and will add an Agenda item for the December EAB meeting to discuss amendments to the Conditions list.

Open Discussion

Board member Rusher expressed his appreciation for the Board, keeping in mind that a few member terms are ending at the end of the calendar year. Councilmember Gantt thanked Board member Reger for stepping up and shared how it is his hope he can continue as the Board’s Council liaison.

Board member Adams inquired about what species of grass are used for stormwater ponds, and expressed his opinion that seed-to-straw plantings are inefficient. Staff member Fortier clarified that developers are required to use sod to guarantee germination on and around SCMs.

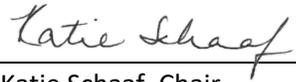
Adjourn

Board member Adams made a motion to adjourn the meeting, seconded by Board member Rusher. The motion was approved unanimously and the meeting adjourned at 8:23p.m.



Megan Pendell, non-voting staff secretary

ATTEST:



Katie Schaaf, Chair