

## **MEMORANDUM**

To: Jordan Velozo, Chief Regulatory Officer, Cape Cod Commission

From: Tim Pasakarnis, Water Resources Analyst, Cape Cod Commission

Re: 35 Scudder Residential Community,

Objective WR4 of the Water Resources Technical Bulletin

Date: December 16, 2022

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**The following analysis evaluates Objective WR4 of the Water Resources Technical Bulletin to the Regional Policy Plan in relation to the above project.**

In the June 6, 2022 staff report, staff noted that the above referenced proposed project would result in a net increase in impervious area on site, and that the general approach to stormwater management would incorporate a number of strategies designed to mitigate the impacts of the increased impervious surface.

Since the most recent subcommittee hearing on July 28, 2022, the applicant has submitted additional materials that enabled a more detailed analysis of the project's consistency with Objective WR4 – to manage and treat stormwater to protect and preserve water quality. These materials include:

- Civil Site Plans (received October 12, 2022)
- Revised drainage analysis (received October 12, 2022)
- Updated restoration plans (received October 12, 2022, November 22, 2022, and December 12, 2022)
- Landscape plan (received November 3, 2022)

Additional clarification on the proposed plans was provided to Commission staff by the Project Team on December 15, 2022. Based on the information contained in these updated materials, water resources staff have made the following observations regarding the consistency of current project plans with Objective WR4

- The Project proposes to redevelop land currently used as a golf course to provide housing.
- As a redevelopment, the following is required for consistency with WR4:
  - Reduce impervious area coverage and improve site conditions to enhance stormwater retention, water quality treatment, and recharge over existing conditions.
  - Include natural areas in stormwater system design.

- The proposed redevelopment from golf course to housing use results in an increase in impervious cover in order to build the structures, parking, and roadways required to serve the proposed housing units, which makes it inconsistent with Objective WR4.
- It would not be possible to create additional housing on the Site without adding to the impervious surface coverage.
- While the Project will result in greater impervious coverage compared to current conditions, it will reduce fertilized turf area and will reduce the amount of impervious coverage within the areas of the site covered by the Wellhead Protection Overlay District.
- The proposed stormwater management system will improve stormwater management on site and reduce untreated surface runoff to wetland resources by reducing peak discharge rates, and providing storage and treatment capacity sufficient to store, treat, and infiltrate all runoff from parking areas and roadways onsite. The stormwater system utilizes exfiltrating bioretention areas within parking lots where feasible, use of distributed bioretention and direct infiltration of roof runoff throughout the site will maintain recharge in a manner protective of wetland function.
- As the project would be inconsistent with Objective WR4, the subcommittee may recommend and the Commission may approve a development agreement which is inconsistent with the Act or the Regional Policy Plan or a Local Comprehensive Plan if the inconsistency is necessary to enable a substantial segment of the population to secure adequate opportunities for housing, conservation, environmental protection, education, recreation or balanced economic growth and the interests protected by the Act, RPP or LCP can be advanced or protected by an alternate approach, which shall include appropriate mitigation.
- As currently designed, the following mitigation has been offered:
  - The project utilizes a clustered building site design and reduced parking spaces below the zoning requirement to reduce the overall amount of impervious area created.
  - The project reduces impervious area within the Wellhead Protection Overlay District.
  - Runoff from building roof areas will be directly infiltrated to provide recharge throughout the site and reduce the required size of stormwater treatment facilities.
  - Bioretention areas have been incorporated throughout the site into parking and roadway areas to provide treatment and infiltration for associated stormwater runoff.
  - The stormwater system has been designed according to Massachusetts Stormwater Handbook standards to reduce runoff from the site to adjacent water resources under conditions up to and including the 100-year storm.
  - By reducing fertilized turf area and treating stormwater runoff generated by new impervious surfaces, the proposed project will reduce overall sitewide nitrogen loading relative to current conditions.

- The project team has indicated willingness to provide additional bioretention capacity within the clubhouse traffic circle that has been identified by Commission staff.

Staff has determined that the interests protected by WR4 can be advanced or protected by the alternative approach and mitigation described above.