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Okaloosa County Planning and Inspection
1804 Lewis Turner Blvd, Suite 200
Fort Walton Beach, FL 32547

RE: Proposed DRI Amendments for BWB Driving Range Residential Subdivision & Town Center (North & South; Mixed Use) ~ Preliminary Drainage Analysis

To whom it may concern,

The above-mentioned projects include Parcel 22-1S-22-0000-0001-0110 and Parcel 22-1S-22-0000-0001-0100 located in the Bluewater Bay DRI approximately 1,641 feet southeast of the intersection of Bay Drive and Bluewater Boulevard in Okaloosa County, FL. A preliminary stormwater analysis has been conducted and analyzed for compliance with the criteria set forth by Okaloosa County and the Northwest Florida Water Management District (NFWWMD). The preliminary stormwater calculations are attached with this submittal, during the future development order process, this analysis will be further refined with additional detail submitted to Okaloosa County staff for review, to ensure compliance with all applicable stormwater regulations.

Conclusion

The preliminary stormwater management system has been designed to meet the 25-year critical storm event such that the post-development runoff does not exceed the pre-development runoff and will discharge along historic drainage patterns. Although not required to do so, we have also taken into consideration in the preliminary design the 100-year critical storm event. Our preliminary design criteria is based upon the fact that the surrounding area provides for positive downstream discharge through the Lido Lake system and ultimately to the Choctawhatchee Bay. We have included, in our opinion, adequate on-site drainage areas for the proposed developments to accommodate any new stormwater flow as well as any stormwater flow from adjacent properties that now flows onto or over the subject properties, while taking into account the adjacent, developed areas and considering the offsite historic drainage patterns. The preliminary analysis indicates NFWWMD and Okaloosa County stormwater requirements are able to be met. Therefore, in our opinion, there should be no negative impacts to the adjacent properties and lakes as a result of these projects. The required detailed information will be submitted in the Development Order process for review by County staff.

Existing Conditions and Historic Drainage Patterns

There is a common misunderstanding that the driving range and golf holes are intended to provide stormwater treatment for development areas within Bluewater Bay. This is not accurate. Each individual development within Bluewater Bay has always been required to provide their own stormwater treatment according to the applicable requirements at the time of development. Most of the single-family home subdivisions within Bluewater Bay provide stormwater treatment through the

construction of front yard swales, or a combination of swales and retention areas. The multi-family and commercial properties within Bluewater Bay typically provide stormwater treatment in retention or detention pond facilities that are located on each subject property. These facilities have been previously designed, permitted, and constructed in accordance with applicable requirements at the time of their development.

When the golf course was constructed lakes were a part of the overall Golf Course Grading and Drainage plans. The lakes provide stormwater treatment for the golf course and some of the roadway network. These lakes were oversized for aesthetic and irrigation purposes, and therefore have additional stormwater capacity within them above and beyond what was required for the development of the Golf Course. They do not, and were not, designed to provide stormwater treatment for any specific individual subdivision or development within Bluewater Bay. Due to the location and design, however, the lakes maintain the historic drainage patterns for the overall area and accept stormwater that exceeds the volume of the upstream stormwater systems, thus providing additional stormwater treatment above the levels that each subdivision was required to provide. It should be noted that these volumes are in excess of the required stormwater treatment for each development within Bluewater Bay, but the individual subdivisions are not reliant upon the lakes to provide minimum required stormwater treatment. The golf holes and lakes are required to take stormwater flow from adjacent subdivisions and developments based upon a legally effective, recorded easement from 1992 between the then owner of the Golf Course and the adjacent owners, and their successors. However, the Golf Course/lakes do not provide stormwater treatment. They are only intended to convey stormwater along historic drainage patterns so as to not back stormwater upstream in the event of significant rain events that exceed the stormwater management requirements of the individual subdivisions.

In stormwater events that exceed the required treatment volume, or exceed the required capacity of each system, the stormwater then discharges downstream, sometimes across golf holes, into the lake systems, and ultimately flows downstream to the Choctawhatchee Bay, along historic drainage patterns, and along positive downstream discharge locations.

Subject Properties Conditions and Design Considerations

The properties that are the subject of the DRI Amendments requested - the Driving Range, Bay Course Hole #1, and the existing golf club parcel- have elevations that range from approximately elevation 20 at the existing club house down to elevation 9 at the edge of the existing manmade lake located on the western portion of the Driving Range property. The rest of the site is generally flat with elevations ranging from approximately 15 on the golf club parcel on the north side of Bluewater Blvd, to elevations 12 and 13 on the southern side of the driving range and golf hole #1. The property contains minimal slopes and does not receive or direct stormwater from other subdivisions. Stormwater on the subject properties currently percolates into the ground and any excess stormwater sheet flows into the existing pond, known as the Lido Lake system. The Lido Lake system flows to the west and southwest and ultimately connects to a large wetland area that connects directly to the Choctawhatchee Bay, providing for positive downstream discharge during rainfall events.

The project proposed for the bulk of the driving range and Bay Course Hole #1 will consist of 40 residential single-family lots and accompanying roadways, stormwater facilities and utilities. Notwithstanding the fact that County regulations require stormwater management only for the 25-year critical storm event for this subdivision, the drainage area preliminarily designed for the residential development was specifically analyzed with both the 25-year critical storm event and the 100-year critical storm event volumes in mind. The preliminary stormwater treatment was focused in two dry retention basins connected with an equalizer pipe. The final design will be completed and submitted

for jurisdictional permits at the time when Development Order Design Development Documents are completed. Offsite, historic flows have been considered and historic drainage flow patterns will be retained, up to the prescribed 100-year critical storm event requirements so that, in our opinion, there should be no offsite impacts as a result of the development of the residential subdivision.

The Town Center project proposed for the existing golf club site and the northern portion of the driving range and Bay Hole #1 adjacent to Bluewater Boulevard will consist of adding to the existing golf club building mixed-use buildings, that include a total of 30,000 SF of commercial and 33 residential units, and accompanying roadways, parking areas, stormwater facilities, utilities and modifications to Bluewater Boulevard. Drainage Area "A" encompasses the commercial area north of Bluewater Boulevard on the existing golf club site and will be treated using a dry retention basin. Drainage Area "B" includes the commercial area south of Bluewater Boulevard and the modified section of Bluewater Boulevard and will be treated using a dry retention basin. The preliminary stormwater management design contemplated both the 25-year critical storm event and the 100-year critical storm event even though current County regulations require only that the design handle the volumes for the 25-year critical storm event, due to the existing positive downstream discharge. Final design will be completed and submitted for review by County staff in connection with Development Order Design Development Documents. Offsite, historic flows have been considered and historic drainage flow patterns will be retained so that, in our opinion, there should be no offsite impacts as a result of the development of the project.

The existing lakes will not be negatively impacted, filled, or modified in any way as a result of these projects.

To the east of the subject properties is the Gleneagles Green 1 and 2 Townhome projects. The existing offsite elevations to the east in Gleneagles 2 range from approximately elevation 15 and slope down to the west (bordering the to-be-developed properties) to approximately elevation 13. (Gleneagles 1 lies across Oakmont Drive and does not drain onto the subject properties.) The Gleneagles 2 project was required to provide its own stormwater treatment at the time it was developed. In storm events that exceed the required stormwater treatment volumes required for the Gleneagles 2 project, stormwater will flow across Bay Course Hole #1, across the driving range and into the lake system along historic drainage patterns. At the conclusion of the design, permitting, and construction of the subject properties, these historic drainage patterns and discharge patterns will not be disrupted. Per jurisdictional requirements, a development project must either route offsite stormwater to a positive downstream discharge point along historic drainage patterns around the new development, or the offsite stormwater must be taken into the developments' stormwater treatment facility and the treatment and attenuation volumes must be accounted for in the specific design. Upon the final, detailed stormwater management facility design, these accommodations will be and must be accounted for in order to achieve a development permit.

Across Bluewater Boulevard, to the north of the driving range and Bay Hole #1, is the golf clubhouse. The golf clubhouse is currently being considered for re-development known as the Town Center, North and South. Currently, the golf clubhouse is developed and contains its own stormwater treatment facilities, which were designed to meet applicable requirements at the time it was developed. Stormwater from this property flows to the west and ultimately discharges to an existing manmade pond to the west of the property, then flows under Bluewater Blvd. to the southwest and into the aforementioned Lido Lake System into a large wetland area and ultimately into the Choctawhatchee Bay, providing for positive downstream discharge.

To the north of the existing golf clubhouse is the Villas of St. Andrews (now known as Balmoral) subdivision and to the west is the subdivision known as Fairway Lakes. These subdivisions have their own stormwater treatment and drainage control and each border one or more man-made ponds that flow under Bluewater Boulevard and discharge into the aforementioned Lido Lake System to the southwest, into a large wetland area and ultimately into the Choctawhatchee Bay, providing for positive downstream discharge. Neither of these subdivisions sheet flow onto or across the golf clubhouse parcel.

To the west of the subject property is St. Andrews Village. St. Andrews Village is an existing single-family subdivision that provides its own stormwater management that was designed, permitted, and constructed in accordance with the requirements of the jurisdictions at the time it was developed. St. Andrews Village is generally flat with elevations ranging from Elevation 12 to elevation 9. During storm events that exceed the required stormwater volumes, the property discharges to the north into the Lido Lake System and ultimately to the Choctawhatchee Bay, providing for positive downstream discharge. These historic drainage patterns will not be disrupted as a result of the development of the subject property.

If there is anything that I can help with, or if you need any further information, please do not hesitate to contact me.

Respectfully,

A handwritten signature in blue ink, appearing to read "Matthew R. Parker".

Matthew R. Parker, P.E.
JP Engineering, LLC