

TRG Developments

## **ALLAN BEACH RESORT CONCEPTUAL SERVICING BRIEF**

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SERVICING BRIEF

MARCH 2012



## TABLE OF CONTENTS

|           |   |          |
|-----------|---|----------|
| <b>1.</b> | <b>INTRODUCTION .....</b>                             | <b>1</b> |
| 1.1       | PURPOSE.....  | 1        |
| 1.2       | SITE LOCATION.....                                    | 1        |
| 1.3       | EXISTING CONDITIONS .....                             | 1        |
| 1.3.1     | Building Structures .....                             | 1        |
| 1.3.2     | Groundwater Wells .....                               | 1        |
| 1.3.3     | Sceptic Fields & Tanks .....                          | 1        |
| 1.3.4     | Electrical Distribution System .....                  | 2        |
| 1.3.5     | Vegetation .....                                      | 2        |
| 1.3.6     | Topograpghy .....                                     | 2        |
| 1.3.7     | Soil Conditions .....                                 | 2        |
| <b>2.</b> | <b>PROPOSED INFRASTRUCTURE .....</b>                  | <b>2</b> |
| 2.1       | Potable Water Supply, Treatment and Distribution..... | 2        |
| 2.2       | Wastewater Collection, Storage and Disposal.....      | 2        |
| 2.3       | Stormwater Drainage .....                             | 2        |
| 2.4       | Electrical & Natural Gas Distribution Systems .....   | 3        |
| 2.5       | Roadways.....   | 3        |

# 1. INTRODUCTION

## 1.1 PURPOSE

This Conceptual Servicing Brief is being submitted in support of the Outline Plan application by IBI Group on behalf of TRG Developments.

The Outline Plan demonstrates the transition from the current Country Residential District (CR) to the proposed Bareland Recreational Resort District (BRR) through amendments to the Glory Hills Area Structure Plan and Land Use Bylaw 20-2009.

The Conceptual Servicing Brief will provide an overview of the major infrastructure components being proposed to service approximately 170 Recreational Vehicle (RV) units on the subject lands.

## 1.2 SITE LOCATION

Allan Beach Resort is located on the NE ¼ 9-53-1-W5M between Highways 16 and 16A. The site is adjacent to the west side of Allan Beach Road and the southeast side of Hubbles Lake. The site comprises an area of approximately 13.1 hectare or 32.37 acres.

## 1.3 EXISTING CONDITIONS

Until recently the lands were operated as a public beach with nearby camp sites and RV pads. The existing conditions and infrastructure which serviced the site are briefly described below.

### 1.3.1 BUILDING STRUCTURES

There are a number of wooden building structures on the site which were operated as stores and maintenance buildings. These structures will be demolished and removed as part of the site redevelopment.

### 1.3.2 GROUNDWATER WELLS

There are two (2) existing ground water wells located on the site as shown on **Figure 1**. A hydrogeological assessment has been completed by AECOM as documented in their report entitled 'Groundwater Well and Aquifer Assessment, Hubbles Lake, Alberta dated May 2011. Included in the report conclusions and recommendations are two (2) pertinent items. They are as follows:

- a) A Water Treatment System will be proposed.
- b) A recommendation that both wells be licensed at a rate of 65.5 cubic meters per day, based on testing.

### 1.3.3 SEPTIC FIELDS & TANKS

There are also two (2) existing septic fields shown on **Figure 1** and a number of septic tanks on the site. The septic tanks will be abandoned and the septic tanks will be removed.

#### 1.3.4 ELECTRICAL DISTRIBUTION SYSTEM

There exist overhead power lines which provided service to the RV pads. These existing poles and power lines will be removed as part of site redevelopment.

#### 1.3.5 VEGETATION

The site has a significant area of vegetation and tree cover as shown on **Figure 2**. It is proposed to maintain as much of the existing tree growth as practical.

#### 1.3.6 TOPOGRAPHY

There is significant elevation relief across the site as shown in **Figure 3**. Elevations range from 746 to 736 along the south boundary of the site. The lowest elevation is at the shore of Hubbles Lake at approximately 729.

#### 1.3.7 SOIL CONDITIONS

A geotechnical investigation was conducted on the site in 2008 and 2009 by J.R. Paine & Associates Ltd. Recommendations related to serving of the site are contained in their report entitled 'Proposed Allan Beach Resort Upgrades' dated September 2009.

## 2. PROPOSED INFRASTRUCTURE

### 2.1 Potable Water Supply, Treatment and Distribution

As noted previously, there are two (2) existing ground water wells on the site which have been subject to a recent field investigation and subsequent report confirming their suitability for the proposed redevelopment. The existing groundwater wells will be used to supply raw water for the proposed development.

The raw water will be conveyed from the existing wells via a supply main to a proposed water treatment plant which will in turn pump treated water through the proposed distribution system thereby providing potable water to individual units using independent service connections.

The proposed potable water system is shown on **Figure 4**.

### 2.2 Wastewater Collection, Storage and Disposal

Wastewater will be conveyed from the individual units to holding tanks through a low pressure sanitary sewer system to centralized holding tanks. The effluent from the holding tank storage will be collected by truck and disposed of at the wastewater dump station operated by the Alberta Capital Wastewater Sewage Commission.

The wastewater collection and storage system is shown on **Figure 5**.

### 2.3 Stormwater Drainage

Stormwater and snow melt will be drain through roadway ditches and swales. These swales and ditches will be planted as to provide water quality treatment as well as conveyance to the point of discharge. Prior to discharging to either Hubbles Lake or the Allan Beach Pond the drainage flows will flow through oil/grit separators in order to provide a last level of treatment to remove pollutants.

The stormwater drainage system is shown on **Figure 6**.

## 2.4 Electrical & Natural Gas Distribution Systems

It is proposed that underground electrical and gas distribution systems will be design and installed in order to provide individual services to each unit. Distribution system alignments will be located adjacent to roadways.

## 2.5 Roadways

As noted above, roadways will be rural section in order to provide both road and lot drainage. The roadway structure will be asphaltic pavement with a granular base course. The paved surface is proposed to be 7 meters in width. Typically, the roadway cross-section width will be in the order of 12 to 14 meters of the cross-section, including roadside ditches, will vary depending on the design grades relative to existing topography for paved including approaches to individual units.



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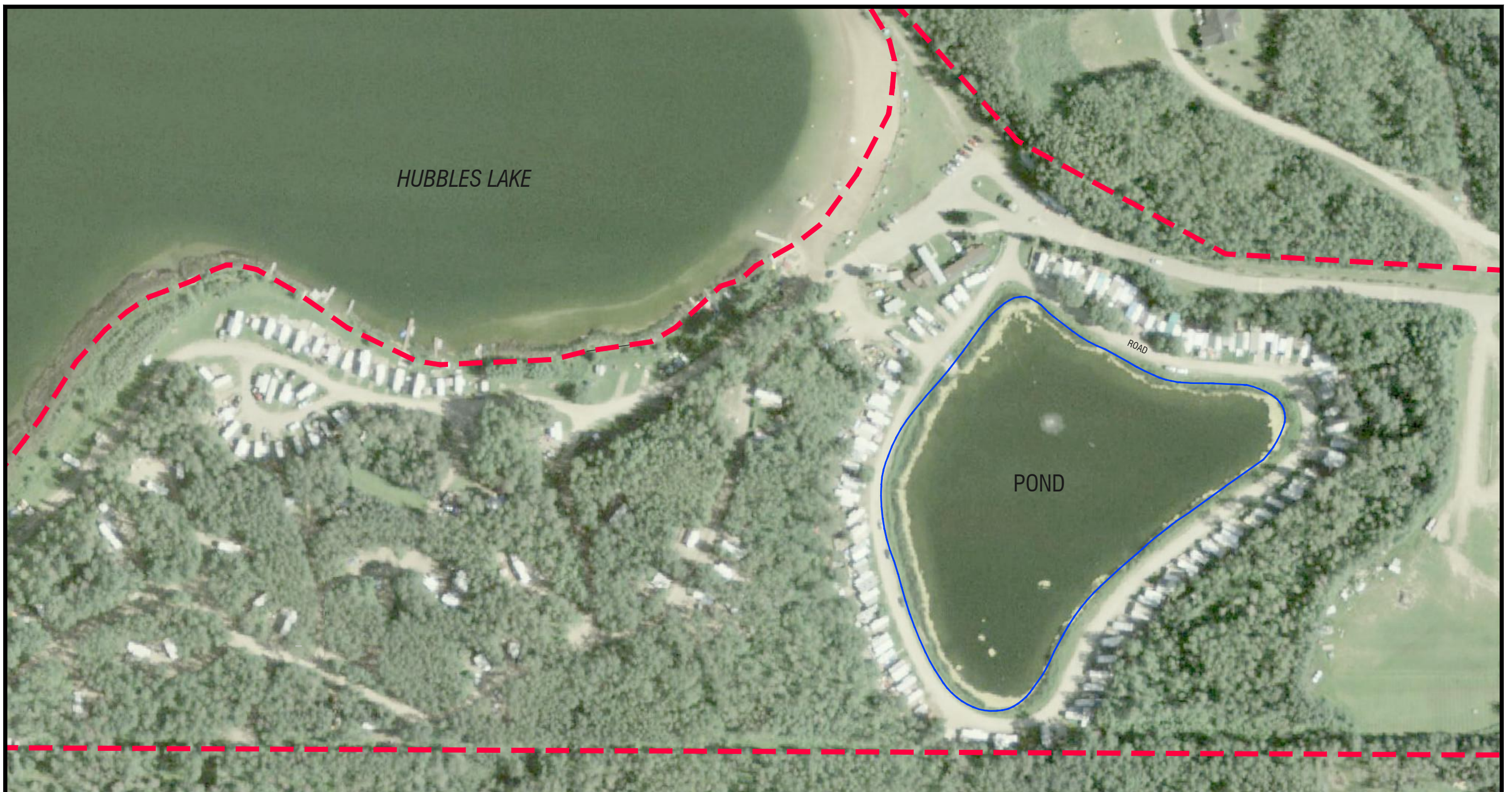
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# **Allan Beach Resort** Conceptual Servicing Brief Figure 1 - Existing Wet Wells and Septic Fields

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NTS

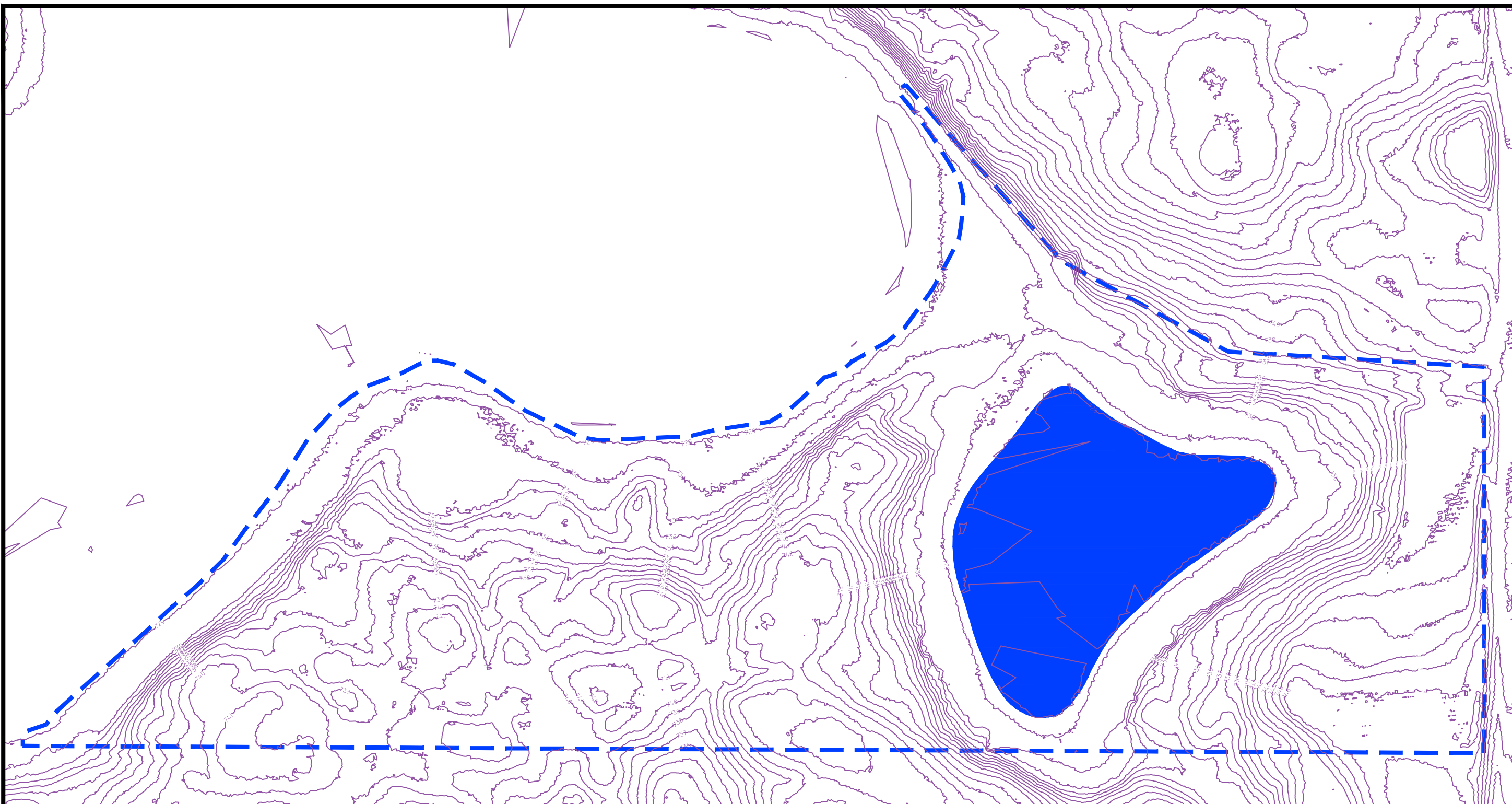
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# **Allan Beach Resort** Conceptual Servicing Brief Figure 2 - Existing Vegetation

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Figure 3 - Topography

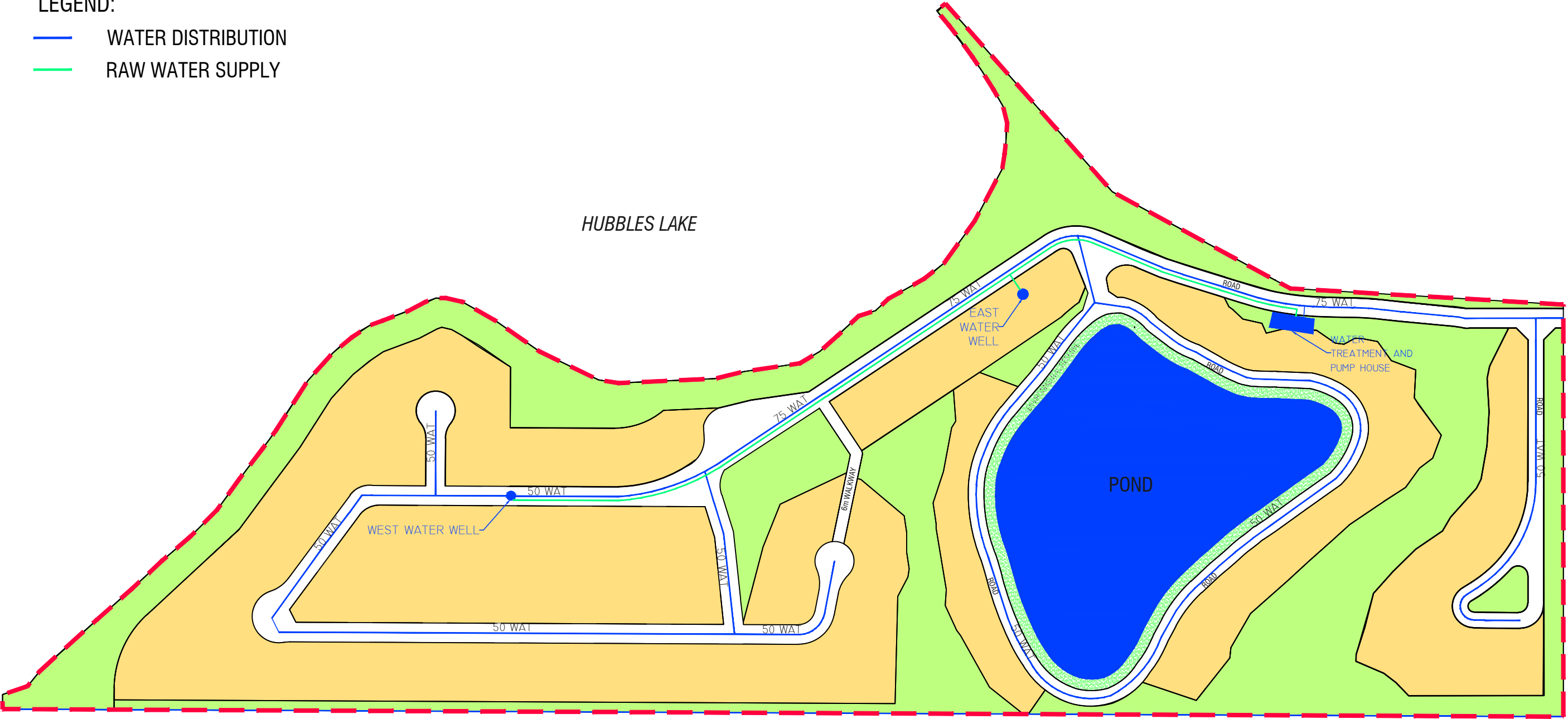
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LEGEND:

- WATER DISTRIBUTION
- RAW WATER SUPPLY



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Figure 4 - Water Servicing

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LEGEND:

→ DIRECTION OF FLOW



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Figure 6 - Storm Drainage

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