

The area known as Austin Lake is a parcel of land located in the City of Smyrna in Cobb County, Georgia. The Parcel is approximately 8.4 acres in size, with approximately 4.3 acres forming the body of water known as Austin Lake, and approximately 4.1 acres of wooded land located immediately adjacent to the south. The property is owned by the Austin Lake Homeowners Association, the deed having been transferred from Austin Lake Development Co. on April 1 1999. In this overview, the terms “Lake” or “the Lake” refer to the portion which is the body of water, and “Woods” or “the Woodlands” refer to the portion of the property located south of the dam. While this document is presented as a single comprehensive overview, the various sections can be referenced separately and individually. For that reason, readers will notice some minor repetition of information between sections.

### **The Lake**

Austin Lake was previously known as “Cardinal Lake” (presumably because the shoreline shape of the northern end of the lake bears a fair resemblance to the silhouette of a red cardinal) but the name “White Oak Lake” also appears on some maps. The 4.3-acre lake runs roughly 650’ long on a north-south axis) and averages about 300’ wide on an east-west axis. The normal water table level<sup>1</sup> is 960.0’ above sea level with an estimated high-low range of 964’ to 957’. The depth of the lake<sup>2</sup> is estimated to be an average of about 6’ with a maximum channel depth estimated at 12’. The buildup of sediment has reduced water depth to less than 6” in some places. At full pool and using a conservative estimate of an average depth of 7 feet, Austin Lake holds approximately 30 acre/feet of water.<sup>3</sup>

The lake receives its principal water inflow from a creek to the northwest called the “Smyrna Branch.”<sup>4</sup> Lesser inflows come from a secondary creek at the northeast corner of the lake, and three stormwater drains running from Lake Dr. SE. Stormwater flowing through Smyrna Branch includes runoff from South Cobb Drive, Sherwood Park Subdivision, Lake Court Park, and the surface runoff from approximately 125 acres filled with the many light industrial, commercial, and residential properties located in the SE quadrant of the intersection of South Cobb Drive and Concord Rd.

Reasonable concerns have been raised about risks of water contamination by the many commercial and light industrial operations within this watershed area. It is not known how closely these businesses are monitored by Smyrna Code Enforcement. Except for leaves falling annually from nearby trees, and a minor amount of natural soil erosion along the shoreline, virtually all the sediment built up in the lake comes from rainwater flowing in from upstream creeks and drains.

Austin Lake Homeowners Association last did a dredging operation on the lake in 2013. Planning for the project began as early as 2007 but funding constraints delayed the work and the dredging was limited to the north end of the lake.<sup>5</sup> Dredging is a periodic maintenance issue, normally on a 15 years cycle which depends upon the volume and nature of the sediment inflows.

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<sup>1</sup> See March 1993 survey by Gaskins Surveying Co.

<sup>2</sup> Cite source

<sup>3</sup> Water volume calculation: <https://www.vcalc.com/equation/?uuid=7802c72a-a184-11ed-8f09-bc764e203090>

<sup>4</sup> This is the name used by City of Smyrna Engineers

<sup>5</sup> To confirm a complete picture of the dredging experience, further review of HOA Board meeting notes from that period is needed.

Water flows out of the lake through a drain tower located near the dam at the southern end of the lake. Water draining through this tower exits through a 4' diameter steel conduit pipe under the dam. Any flooding goes out through a 30' wide emergency spillway at the SE corner of the dam. Heavy rains can cause the water level to rise 1-2 feet within a few hours. Water levels recede quickly as well, and lake levels usually return to normal within 36 hours. Current residents cannot recall ever seeing the water level rise more than 3-4 feet above normal.

The lake and woodlands are surrounded by private property. In the Austin Lake subdivision to the west there are 8 homes fronting on the lake, 2 homes fronting on the creek coming into the lake, and 2 homes adjacent to the woodlands, for a west-side total of 12 homes. To the east of the lake along Lake Drive there are 5 homes with lakefront property, along with 5 homes adjacent to the woodlands below the dam, and an additional 5 homes bordering the southern edge of the wooded portion of the property. On the north end of the lake sits a 3+ acre parcel of undeveloped land which is intermittently offered for sale, and is regularly trespassed by people seeking to fish the lake without permission. In addition, there are two points of access via right-of-way which are detailed in the section of this overview titled "The Dam."

The Lake provides a habitat for fish, waterfowl, and a variety of small mammals. Environmental specialists from a company specializing in lake management monitor the lake monthly, removing surface debris and treating for algae and other undesirable aquatic plant growth. While full dredging is not yet necessary, they recommend aeration be added to improve the oxygenation and to counter the thermal stratification of the water and to reduce the silting in the lake water.

### **The Dam**

The two property sections – the Lake and the Woodlands are separated by an engineered dam running in a generally east-west direction and measuring approximately 265' long and 50' wide. The dam is accessed from the west via a 25' by 180' easement running east from Traymore Trace to the SW corner of the lake, and by a City of Smyrna unimproved right-of-way extending westward approximately 300' from Lake Drive to the SE corner of the lake. In the stated opinion of City of Smyrna Engineers, this unregulated dam would be classified as Low Hazard under the guidelines set out by the Association of State Dam Safety Officials.<sup>6</sup> It is believed that the original dam was built by the previous owner, a farmer, who created the lake in the 1950's to provide water for his livestock. The lake and dam are visible on the 1958 survey of Cardinal Lake Manor found in Cobb County records. It is further understood that development of the Austin Lake Subdivision was preceded by a complete rebuild of the dam to modern code and standards in or about the mid-1990's. No concerns have been raised as to the structural integrity of the current dam.

### **The Woodlands**

The Woodlands is the 4.1-acre section of the property located south of the lake. It is intersected by three streams or sources of water. The primary stream, fed by the lake drain, is a continuation of the original creek. It bisects the parcel more or less through the middle. A second streambed gets water from two sources: a small creek (usually dry) running through Austin Lake Subdivision, and the release end of a 4'

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<sup>6</sup> <https://damsafety.org/media/faq>

culvert collecting stormwater from Austin Lake Drive and Traymore Trace. The third streambed only receives water from the emergency spillway, and only after heavy rains. Damming activity by beavers has periodically caused water levels to rise to include streambeds that would otherwise be normally dry. Total water flow rates under normal conditions are estimated to be less than 50 gal/min.<sup>7</sup>

Beginning in the winter seasons of 2022 and 2023, neighborhood volunteers began a limited clearing and maintenance effort in the woodlands. The initial goals were to demonstrate active ownership and stewardship in an area that had been largely untouched for decades, and to open some very basic walking pathways which could be enjoyed by Austin Lake residents. Since then, regular visits to the woodlands (using those paths) have been informative. Neighbors are routinely using the area to “dump” yard debris over their back fences. One neighbor in the SE corner of the property has been actively clearing in the area right behind their property, for reasons which are not yet clear. Coyotes and deer still use the streambeds as travel pathways, but signs of bedding or denning activity have been dramatically reduced as human activity has increased. Climbing vines have been severed at the base to preserve mature trees.

The three streambeds intersecting the area are a barrier to footpaths. A single bridge over the tertiary waterway allows much greater access for footpaths, but the bridge is in need of significant repairs. In its current state, the bridge is a potential hazard.

### **Future Plans**

The Austin Lake Homeowners Association presently has no formal plans for the lake or woodlands beyond a long-term obligation to maintain the property for the benefit of homeowners. Informally, the HOA recognizes the unique value a private lake can offer as an amenity to HOA members. HOA regulations do not permit swimming, but fishing and boating are seen as underutilized activities within the HOA. Any investment in the lake as an HOA amenity would have to be evaluated against the relative appeal of investment in the other HOA amenities.

Several ideas have been suggested as ways to improve the value of the lake and woodlands for the whole HOA community. There are 103 homes in the HOA but only 11 have direct access to the lake. A rough census of boaters and fishermen suggests that 8-10 residents currently use boats on the lake, and a total of perhaps 20 *residents* fish the lake on a regular basis. The largest cohort of fishermen is neighborhood boys in their early teens. A community dock would make the lake much more accessible to fishermen and boaters who currently fish or launch from a steeply sloped embankment on the dam. A community gazebo and/or firepit would offer residents a venue for picnics or family outings at the lake. Boat racks could provide a secure place for residents to store their personal canoes or paddleboats (no motorized boats are allowed) on site.

Other ideas include continued clearing of undergrowth on a  $\frac{3}{4}$  acre site below the dam which would offer shaded recreation for family outings on the wooded side of the dam. Bringing electricity to the lakefront from the nearby street might be both the most expensive and the most beneficial improvement of all. Finally, lowering the water level for scheduled maintenance will allow for annual cleanup and debris removal. To intentionally lower the lake level for maintenance would require the purchase and storage of a siphoning system (principally large diameter PVC pipes and valves).

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<sup>7</sup> Measured by hand at the main drain pipe

### **Long Term Outlook**

Maintenance of the lake ultimately means dredging, and while that task may be yet a few years off, it is an expensive but legally binding obligation which will strain the resources and the general comity of the neighborhood. Taking reasonable steps now can only improve the chances that the HOA survives the challenge of paying for dredging the lake.

The HOA Board has authorized a lake subcommittee under the Grounds and Maintenance Committee currently chaired by Leanne Allen. For additional information on the Lake, please contact Paul Young on the Lake Subcommittee at 404-520-4700 or at [prcy00@gmail.com](mailto:prcy00@gmail.com).