Report From Aquamarine Corporation

THE AQUATIC WEED HARVESTER IN THE PARK SYSTEM

PARK AND RECREATIONAL waters are being endangered by extra nutrients and resulting aquatic weeds. Thus, many over the U.S. have converted to mechanical harvesting. Aquamarine Corporation supplies equipment to fit specific needs of such water areas.

Company records include the New Braunfels, Tex. Municipal Park District. Here flows what Ripley called the shortest river in the world, the Grand Blanco. It runs only 2½ miles.

The Grand Blanco flows out of a fault line escarpment in Landa Park at the rate of 338 cu. ft. per second. The nutrient level has been rising steadily in these waters and, along with it, aquatic vegetation. First, a mechanical cutter was used and the cut weeds left to float. However, a hydro electric plant downstream failed to function with these conditions.

The Park District then purchased an Aquamarine H-650 Harvester, along with a shore conveyor. The harvester works well in the one-foot shallows as well as the five- to six-foot depths. Both river and lake have been cleared.

At the Berkeley (Calif.) Park and Recreation Department, a 68-acre lake, Aquatic Park, has become nationally known for the national water ski competitions. Park use was threatened by heavy encroachments of a weed locally called "duck weed" (Ruppia Maritime). Fresh water input contained excessive nutrients and tidal salt made the water brackish. With no natural enemies, the weed thrived. In August, the weed regularly died off and massive biological oxygen demand increases resulted. Most fish then died, the lake becoming a stinking quagmire. This negated its use until the organic material returned to the bottom or into solution. An Aquamarine H-650 Harvester was purchased along with shore conveyor and mobilizing attachments to haul the equipment back to storage after use. The operation has been highly successful.

In the Los Angeles area, the Big Bear Lake Pest Abatement District found their prime recreational area being completely ravaged by the encroachments of elodea and milfoil. Big Bear Lake is east of Los Angeles at an elevation of 6,500 ft. above the Mojave Desert. It is controlled by an authority that sells water to irrigation users in the valley.

In August, 1970, an Aquamarine Harvester was purchased. It is being used to cut in selected areas of this 2,000-acre lake, at a rate of four tons of weeds every ten minutes. The lake is now open and clear again for a wide range of recreational activities.

Farther south, Lake Cuyamaca, a fifty-acre man-made body of water in the mountains, east of San Diego, was being choked with a strange woody weed that grew in twenty feet of water and extended as much as eighteen inches above the water surface. Twenty-five percent of the lake had already been covered when the Lake Cuyamaca Recreation and Park District took delivery on a new Aquamarine SAWFISH, a cutter that cuts an eight-foot swath at a five-foot depth and pushes the cuttings to shore for recovery. The application has returned the lake to full usefulness.

Eleven hundred-acre Lake Beulah in eastern Wisconsin is another example of the effectiveness of a methodical approach to mechanical harvesting over a longer period. It is also an example of the successful protection of a lake from accelerated eutrophication.

In Wisconsin, certain areas may legally set up their own sanitary districts with some tax levying powers. These districts are self-governing and control their own budgets within certain limits. The tax money accrued can be used for lake improvement and maintenance purposes.

Lake Beulah had 110 acres badly infested and approaching the point where dredging or abandonment was inevitable.

On a contract basis in 1969, Aquamarine equipment — a complete AQUA-TRIO with Harvester, Transport and Shore Conveyor — was hired to harvest the infested area. There were two cuttings in 1969 and one in 1970. The Sanitary District and riparian owners in 1970 then purchased their own AQUA-TRIO.

Because the Aqua-Trio is simple to operate all Beulah harvesting has been done by inexperienced summer employees and proved highly satisfactory.

The growths of lily pads, coontail and pond weeds have been selectively harvested with fish spawning beds preserved and the recreational areas opened. Accelerated eutrophication of the lake has been stopped.

Left to right, Aquamarine' Sawfish which cuts swath 8' wide, 5' deep, H650 Harvester unloading, and harvesting.