

Lake Marathon in Athens and **POLYDEX™**

MAJOR IMPROVEMENT IN MUNICIPAL POTABLE WATER RESERVOIR

Lake Marathon, also known as the Marathon Reservoir, is one of the main water reservoirs that supplies potable water to Athens, Greece. The Athens Water Supply and Sewage Company (EYDAP SA) operating all water reservoirs in Athens, struggled to control algae growth in Lake Marathon each spring and fall. The lake - with an approximate volume of 34,000,000 m³ liters of water - was treated with copper sulfate. The treatment had an unfavourable outcome, as fish and other aquatic populations in the lake were negatively affected and algae control was not satisfactory. As a result, EYDAP SA was forced to search for alternative treatment options.

POLYDEX™ – a mineral-based liquid bacteriostatic algacide produced by OCION Water Sciences Group – was introduced to EYDAP SA by ASTY ECOLOGY as a cost effective and environmentally responsible alternative to control algae growth and improve water quality at Lake Marathon. EYDAP SA reviewed the advantages that **POLYDEX™** offered, such as OCION's innovative Aqueous Ionic Matrix (AIM) technology, which allows mineral ions to remain active and evenly dispersed in water for long periods of time. Positive results from field tests convinced EYDAP SA with the ability of **POLYDEX™** to control algae growth by providing long lasting stability of biologically active cupric ions EYDAP SA decided to apply **POLYDEX™** to Lake Marathon.



Figure 1. Surface spray application of POLYDEX. Lake Marathon, Athens. 2007.

In spring of 2007, after initial signs of algae growth were observed, the equipment required for the surface spray application of **POLYDEX™** was prepared by experts in large water treatment operations. In May, after the first algae bloom, **POLYDEX™** in diluted form (5:1) was applied directly to affected areas of the water reservoir using converted agricultural sprayers and pumps (Figure 1.). Given the large surface of the lake, algae did bloom in a few areas after the application but was effectively controlled with a second **POLYDEX™** spray application in those areas. John Moiras, General Manager of ASTY ECOLOGY, wrote to OCION Water Sciences Group, "We are pleased that our customers have thoroughly tested **POLYDEX™** and found it satisfactory for algae treatment in their reservoir. We are expecting to treat Lake Marathon and

other reservoirs beginning this year. (Feb, 2008) " EYDAP AC have subsequently used **POLYDEX™** in other potable water reservoirs in Athens.

EYDAP AC continues to use **POLYDEX™** treatment, to improve water quality and control algae in Lake Marathon.

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