

## **The Mitigation of the Influence of Sewage Treated Water to Coastal Area by Near-Nature Stabilization Pond and its Utilization as a Place of Environmental Education**

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Mikawa Bay is notorious as an eutrophic enclosed sea in Japan. In the two sewage treatment plants which are located at of the coastal area of the bay, we made some pilot facilities, near-nature stabilization pond and wetland, in which store the sewage treated water.

The major purposes of this project are mitigation of its harmful influences to ecosystem where the treated wastewater is discharged, and to improve the hygienic safety.

We also have been watching the effect of the facilities as biotope, and we are trying to recover the "Near-by Nature" which we once had in Japanese rural area.

We brought some aquatic plants and animals here, and some of them are still alive and growing. A lot of insects come in naturally, and especially many kind of dragonflies thrive here. And you can see the typical wild birds living in the coastal area are visiting, and some of them are breeding.

On the other hand, it is recognized that exotic species tend to have an advantage to increase, and become dominant species.

There are some technical problems in maintaining the biotope which is made with treated wastewater that contains large amount of nutrients. We need to find the solutions through the trial and error based on continual maintenance.

"Near-by Nature" has been destroyed easily because it was thought not profitable, and now we can hardly see it in urban area. We want to make a good example for recovering "Near-by Nature" using treated wastewater. And we hope to see a lot of children catching insects and fishing there, and want them to know fun of it. We strongly believe children, through those experiences, can increase their sensitivity and understanding of environmental issues.

Many families enjoyed catching crawfish and watching dragonflies at the festival held here in 1999. Based on those experiences, at the third sewage treatment plant, another similar project to make new biotope is underway with getting help of citizens.

