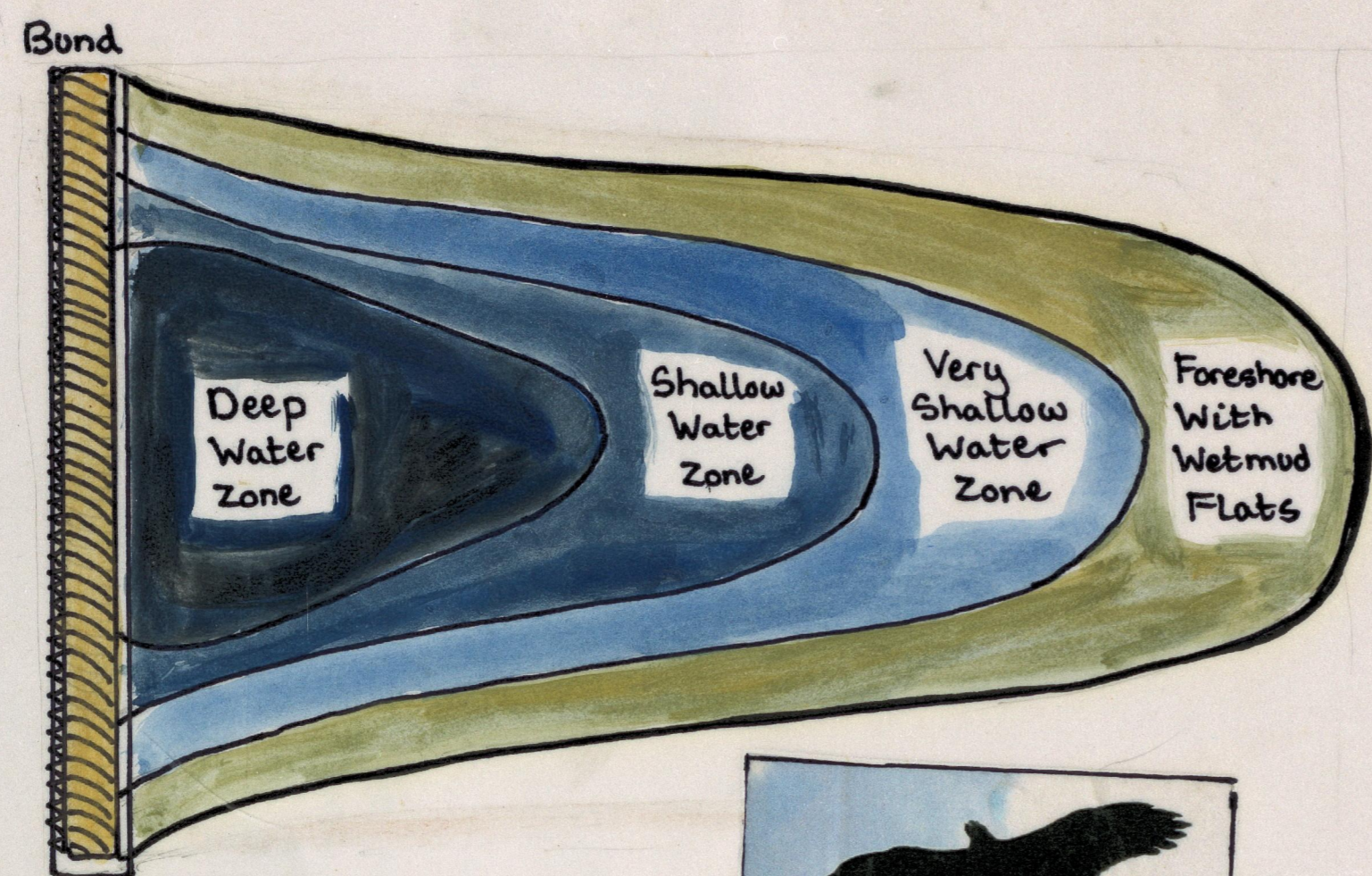
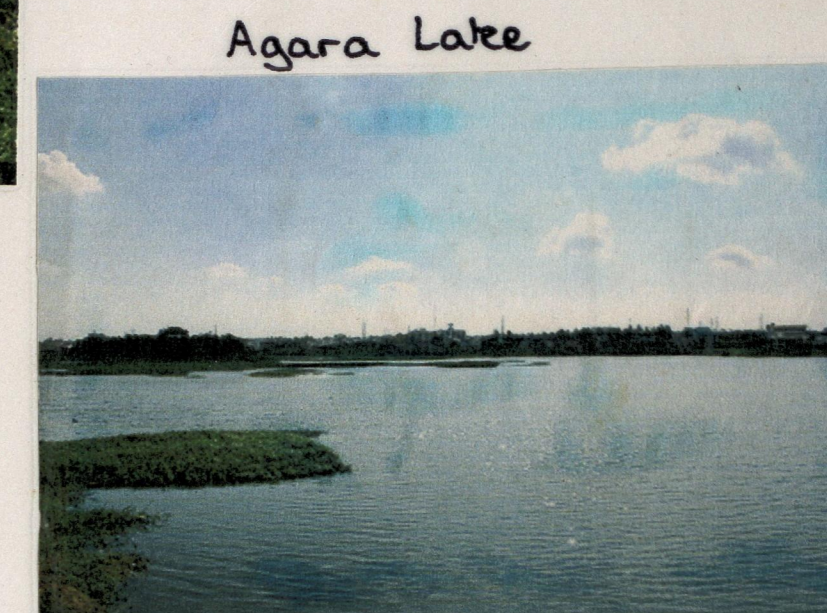


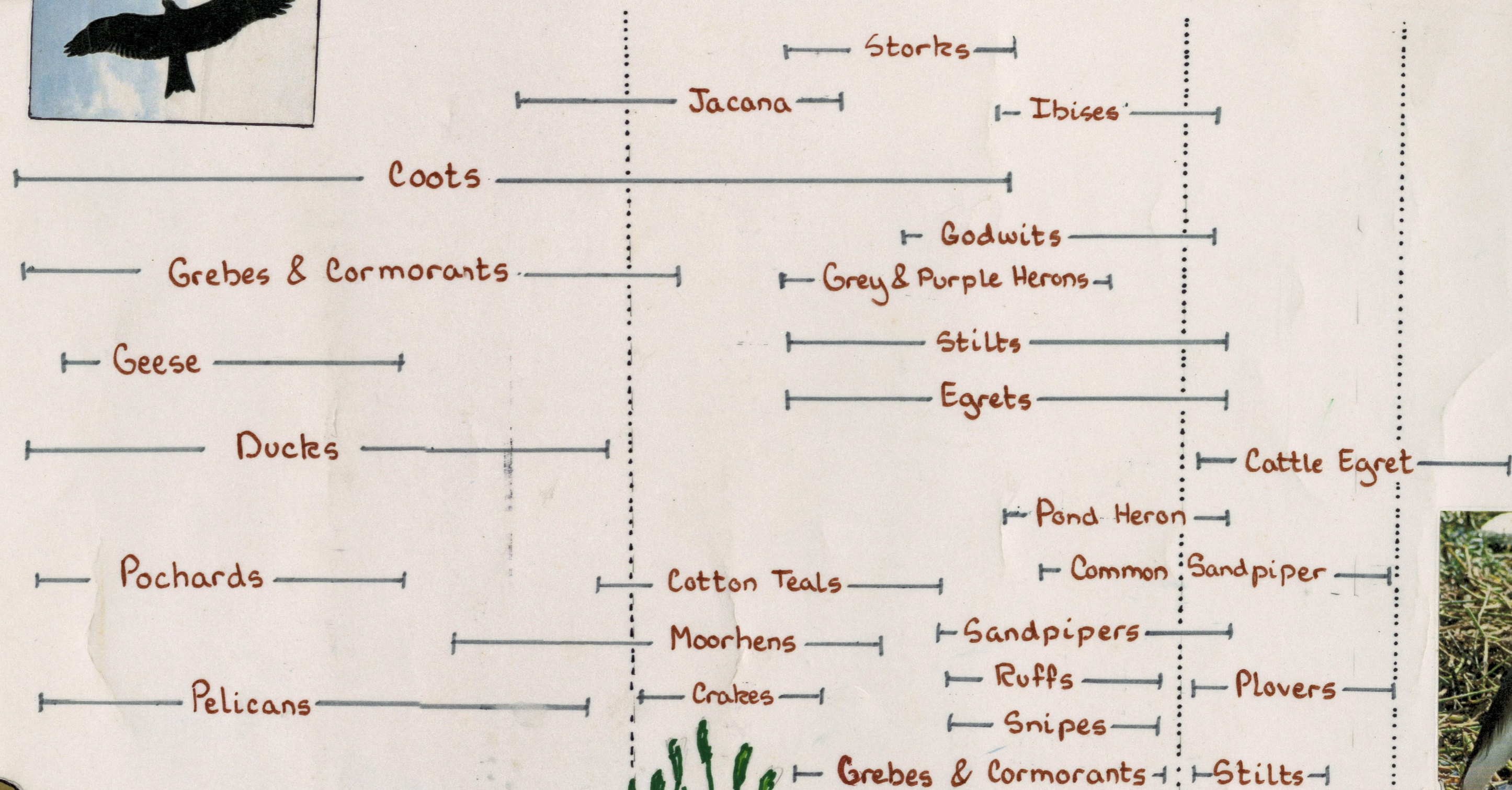
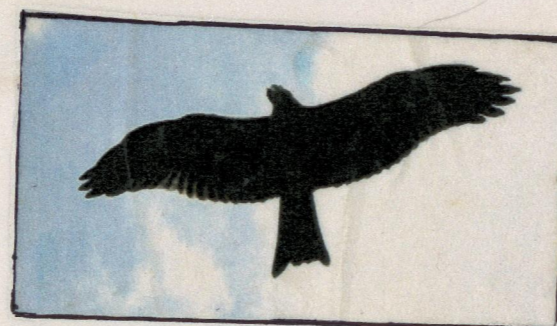
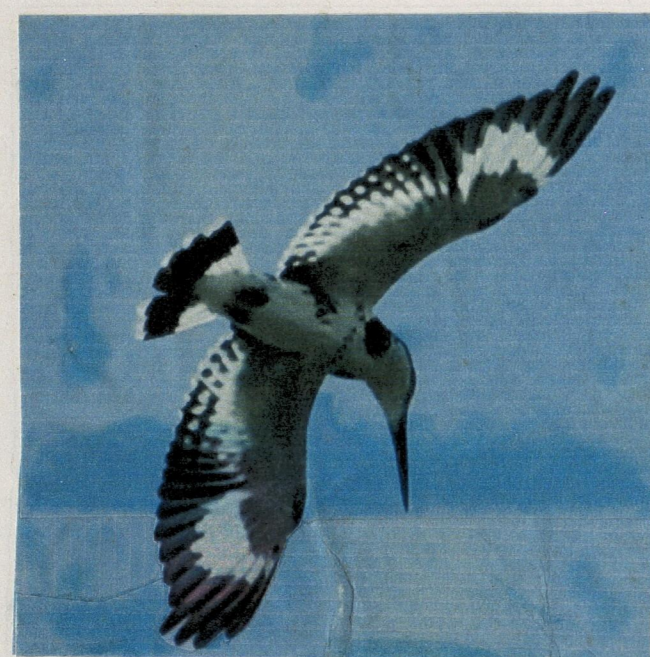
Zonation of a Lake based on Water Depth



Hebbal Lake



Agara Lake



Deepest Zone

Shallow Zone
Vegetation zone

Very Shallow Water

Wet Mud Flats

UTILIZATION OF LAKE WATERS BY DIFFERENT GROUPS OF BIRDS

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The sad Tale of Bangalore's Tanks

An essay by M A S Rajan, a retired IAS Officer

An old-time bard, speaking of a woman of beauty and her 'fall' said, "Her comeliness was her undoing". This is eminently applicable to the City of Bangalore!

The place started as a bucolic habitat through which passed many a gully and valley. Successive generations built bunds and barrages across them to store water for drinking purposes and irrigation. The tanks or ponds so created were linked one to the next below, as a well-conceived measure of rainwater conservation. As population grew pipes took the water from chosen tanks to the users and soon water treatment plants were installed. When this proved inadequate for the increased population far away reservoirs were built and water brought in through flumes, open or piped.

Alongside this transformation of water supply, population pressure brought in new roads and great demand for new housing for government and citizens. At some stage the mosquito menace raised its head.

Rapid increase of population was the prime cause for these colossal changes. A potent cause behind the increase was the natural beauty and convenience of the City! Equally powerful was History. The population numbers soared upwards as strong historical and economic forces changed the city from a placid home for the retired to a Capital city and the State from the dominion of a Maharaja to a bustling State of the Republic several times its size. However all that is outside the focus of this piece. Clearly births and deaths of the native population alone were not enough to explain why the City became the fastest growing metropolis in the country.

The term usually speaks of private encroachment that is, someone from the public occupying public property without due authority. Private encroachment does not appear to have occurred in any tank area within the city. It has happened alongside spillover channels and storm water drains but not in the tank areas. Whoever is seen enjoying space in a former tank bed is doing so on the basis of a written authorization from some government or civic authority. As for watershed areas, that is, land outside the authorized survey boundary of a tank which lies upstream and is the base for the runoff flowing into the tank, this is private land except in the odd case where it belongs to the Forest or similar Department or is classified as common property of the village.

How do we describe the action when a civic or public authority, occupies public lands, presumably in the custody and control of another government or civic authority? That is also a kind of 'encroachment'! As we have seen above, the government and civic authorities have recklessly done this brand of encroachment inside tanks in the care and custody of the Minor Irrigation Department or some such agency, in tank after tank after tank not sparing tank beds.

It is instructive to examine these thoughts in the context of a specific lake.

The Sankey Tank is a water body which has lived for over a 100 years and has thereby experienced the chequered history of Bangalore's tanks. It became a case for protection and upliftment in the cause of restoring the comeliness of Bangalore.

A few years ago the public authorities controlling the Sankey tank designed and carried out a big scheme for the purpose, under which they constructed an elevated walkway all round, laid out little parks with park benches on its two sides, reshaped the water body with ancillary ponds for idol immersion and for a lagoon with fountain. It took about two years and cost more than a couple of crores.

How did the city cope with these changes in its urban ecology? It chose to sacrifice its comely tank system. 'Mosquito menace' screamed the health officials. 'Demand explosion for sites and houses' said the town planners. Engineers cut across tank beds to lay connecting roads. They lowered, raised, remodeled tank bunds, cut and trimmed their toes, and gave new shape to spillover channels called 'kodi's'. Urban solid waste and construction debris were used copiously to level up the tank beds and the nearby marshy lands upstream. What about all that rainwater that used to find its way in slow stages to the remote valley? The engineers had an answer - roadside drains in the housing areas leading to storm water drains, lined and bare, wide and otherwise. The old system of linked tanks was simply abandoned.

The new arrangement crated problems soon enough. Drains got choked with silt, lost their lining, groundwater aquifers dried up and so on. The high-ups had to cry a halt to the destruction of tanks and their support channels. By this time many tanks were gone, only a few survived, some with severe curtailment. These survivors came under protection and upliftment, and were placed under a Lake Authority.

This rapid account of the fate of the city's tanks leads to two thoughts. Tanks have participated, though passively, in the changes occurring around them. They have not stood unchanged like stand-alone monuments. So to think that one can put a tank back into its pristine condition is to daydream. To pull out an old map of the tank and old figures of its spread, and see it alongside of the same details of the modern version of the tank, is thoughtlessness, if not childishness.

The other thought is that the term 'encroachment' -- a much-used expression nowadays -- reveals a dimension that usually goes unnoticed when one talks about encroachment into a tank bed or tank watershed.

The beautified tank and its walk way and parks were hugely popular, and great throngs of people from several localities all round enjoyed them everyday.

Within a few months of its completion the authorities, for reasons of their own, directed the executing agency to raise the rim-level of the waste weir - a simple quick job. The talk at that time was that it was done to rejuvenate the tank by raising its water-holding capacity to some old level.

In one stroke a multi-crore work carried out in the recent past, which made the tank both beautiful and useful to the public, was destroyed. Now a new beautification scheme has been executed. It has of course become as popular as the one that went before.

In this case "All is well that ends well". But the governance issues involved leave a bad taste behind.

Several issues need to be addressed while making policy for Urban Lakes in Bangalore. Some are like this.

Clearly, the actions of public authorities impinge on a multitude of stakeholders, not the least of them are the general public. Where a lake is being worked on, lines of accountability, including levels in it, should be established - and made public. No room should be allowed for opaque decision making.

The Lake Authority should be given the ultimate authority, and effective authority. If there is logic in entrusting that authority to the Forest Department, the expertise that they bring to bear as to the hydrology and maintenance issues of the lake should be made public. At present the Lake Authority is a Regulator only in name. That should change.