The largest commercial enterprise working on Lough Neagh, which is also the most significant commercial inland waterway activity on the island, is the sand extraction business. Thousands of tons of sand are dredged daily from the bottom of the Lough to feed the construction industry. The sand is also used in a range of products from roof tiles to massive concrete bridge sections. Over seven thousand tons was delivered to Croke Park as a base for the playing surface.

Nine of the twenty-two Guinness Liffey barges ended up their service as sand barges on Lough Neagh. In addition there were at least two M Boats 44M and 64M (see IWAI photo of 64M in 1952 on Grand Canal) that found their way to Lough Neagh after cessation of trade on the Grand Canal. They both had their Bolinder engines removed and were used as dumb barges, towed by a Bantam tug.

At least six of the John Kelly dumb barges, used on the Lagan for hauling imported coal from the John Kelly coal boats, were used in the sand trade. Some were used with tugs, and others were redesigned and fitted with diesel engines. Quite a few barges were manufactured locally in Portadown Foundry and one, the Kathleen, which was used as a pump boat in Toome Bay, can be seen at Milltown at the head of the Benburb Gorge on the Ulster Canal.

At present there are sixteen barges working on Lough Neagh with carrying capacity ranging from two hundred to five hundred tonnes. All are loaded by pump, which brings a slurry of sand and water aboard into a settlement tank, with the excess water running overboard back into the Lough.

There are three methods used for discharging the load ashore; grab crane (the simplest); discharge by hopper into the harbour and pumped ashore; or adding water to the settlement tank and pumping ashore as a slurry (the most common method). A method no longer used was to have a pump boat anchored offshore by pipeline. Another method no longer used was to have a barge with a grab anchored offshore to load other barges which came alongside.

The majority of the barges working on Lough Neagh today are Dutch barges bought second-hand on the Continent. Some have been sailed across the North Sea and the Irish Sea and up the Lower Bann while some (those of 200 feet long with a beam of 30 feet being too big for the Bann) have been brought in by road. One, the Tramp, was delivered in two halves and welded back together in Antrim. The Emerson's sand-barge dredgers the 500 tonne 170ft Norman and the Nijverheid (renamed the Bay shore) were delivered by road and launched at Toome Bay.

The Sand Barge Fleet on Neagh today consists of the Norman and the Bay Shore at Emersons, the Tramp and Fairhead at Lagans, the Libertas and Lennie at Mulhollands, the Delcapo at Walls, the Sandpiper, the Tredagh and the Gylfie at RMC.

Scotts of Toomebridge have the largest purpose-built fleet; six identical barges, 120â€™6â€ long and 19â€™3â€ wide, and all loaded and discharged by pump. They were built to a size to fit the locks on the Lower Bann, Bann-Max, by James W Cook Limited in Wivenhoe, Essex. They are the William James built in 1968, Rams Island and Coney Island in the early 70s, and Sandy Bay, Ballyronan and Toomebridge. Two other barges of this class, the Lough Neagh and the Ballyginniff were blown up with sadly, the loss of three lives, during the 1970s.