



Irrigation and Boating in South Gulf Cove

By Ken Nelson

We live in a prime Florida development, which is just being discovered. Sales people tout this as a “Waterfront Community”. In fact it is on our entry signs. Due to Florida not allowing any more construction of canals, our area becomes all the more important. 200’ and 100’ wide canals are very rare in Florida. Plus, we have so-called fresh water to flush out our boat engines on return trips.

What does waterfront mean? To most people it represents **boating**, be it large or small. To use your boat, you need enough water to navigate.

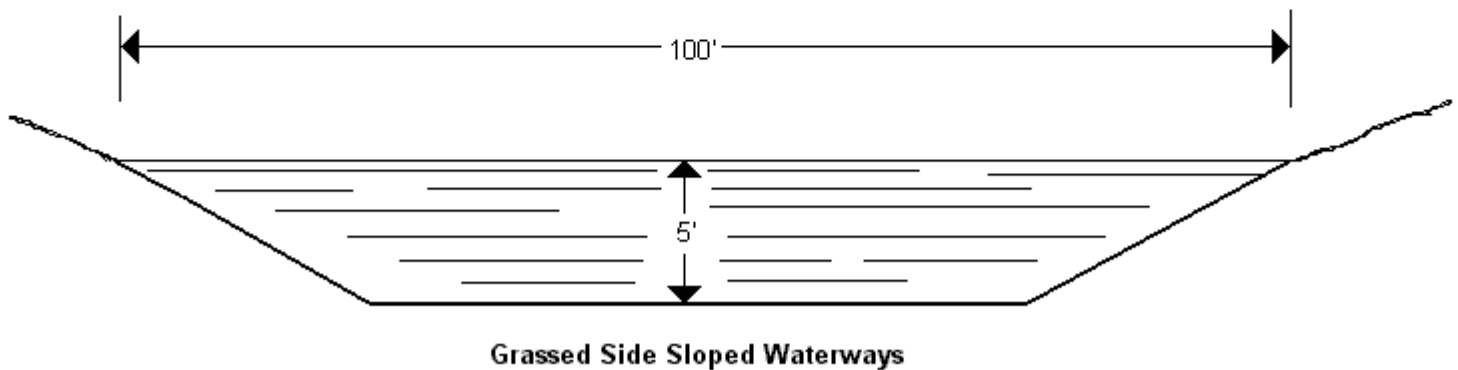
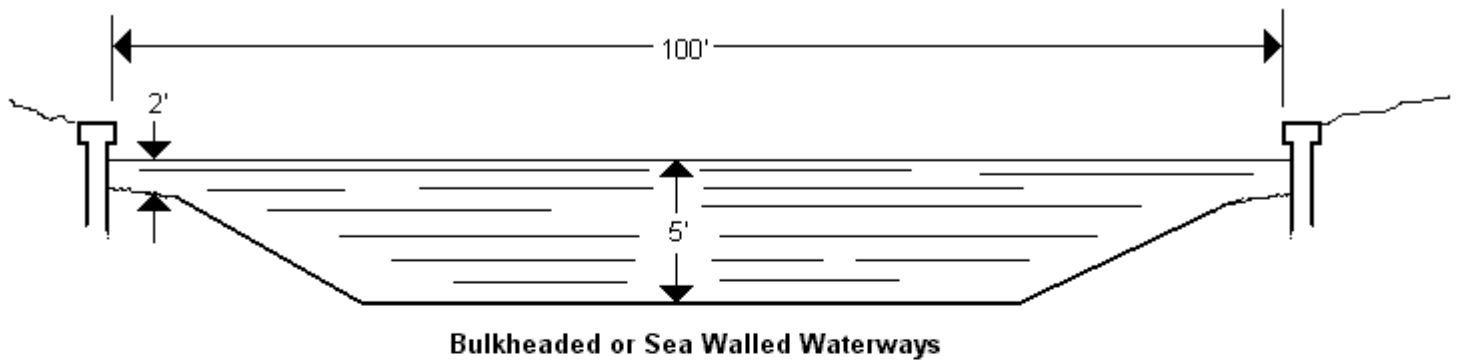
Our area is unique in that the canals serve as drainage for rainwater runoff and the design works very well. The last 25 year, 15” rainfall on Friday, June 23, 1995, brought the water level 4” above the seawall. Sure, some streets and roads were water covered, but within 12 hours, most were passable. The canals dropped back down to just below the crown of the seawalls. Amazing, believe me. Truly, well engineered, 25 years ago.

Besides the canals, the lagoon was added to serve as a filtering system before the water reaches the Myakka River. The Department of Environmental Protection (DEP) insisted that the developer abandon the three direct access channels to the river and put in a lock system to further insure the filtering process. They were (and still are) concerned about polluting/contaminating the Myakka River and Charlotte Harbor with our runoff waters. Before the developer was stopped, the canals were to be nine feet deep in order to provide navigation at low tide. The canals would have been tide sensitive with those three direct access routes. One of the access channels was started. It is near the antenna at the south end of the lagoon, toward the east shore. It is navigable, although the brush is leaning out over the water. At the end, there is a cement wall to stop anyone from continuing the access to the river.

When the developer found out that access could only be through the one lock, they stopped their plans of nine feet and changed to five feet, although most areas are six feet at normal water level. Perhaps this is why at “Four Corners”, it is about ten feet in places. Our canals are only replenished via rainfall runoff and two or three springs, which are very small. There isn’t any flow of current and our water becomes “stale” or stagnant. We do have salt in our water, mixed with the fresh runoff, and the result is brackish. The salinity level is not the same throughout our system. It depends upon where you live and how the runoff affects your canal. We also get runoff from Englewood East and Gardens of Gulf Cove.

Now then, all this construction points out that the canals were built to serve boaters and any other use, such as fishing and irrigating, is a bonus for the homeowner’s choice. Watering your yard and plants is at your own risk, but knowledge of canal construction can help.

The drawings are a cross section of canals, one with seawalls and the other with grassy banks.



It is important to note that the deepest part is toward the center of the canal. Salt water is heavier than fresh water so therefore; the deeper you go in the canal, the higher the salinity. For those of you who choose to use canal water for irrigation, you should limit the depth of the intake pipe. Naturally, in our dry season, (December thru May) the salinity rises because there is less rain water (fresh) laying on top of the salt layer. Unfortunately, this is also the time that you need more water for irrigation. Early residents (8 to 10 years) discovered that you quit using canal water when the tips of your grass turn red. You would be safer using city water for those precious plants and trees. Some have been lucky with wells, but most are high in iron, which stains concrete, stones, etc. Some wells are higher in salt than the canal. You take your chances. There is no magic answer. So, navigation is a primary concern for boat owners who have made a **SIZABLE** investment in a boat and purchased waterfront property with the assurance that they could use their boat.

The lock holds our water level pretty steady in the canals, but without rainfall to replenish the level, evaporation takes over. When the level becomes too low, the lock gates are opened at chosen high tides to maintain a minimum level for navigation. Damage ranges from sand plugging the engines, bent and chipped props, outdrives and shafts seriously damaged to hulls needing repair. ALL of these items are very costly to get fixed. It is tricky to find the shallow spots - when it happens, you learn the location, but then it is usually too late.

I feel that the builders and sales force should make the prospective homeowner aware of the perils of using canal water for irrigation. I have noticed many new homes under construction that already have a pipe installed to the canal. Do your new neighbors a favor and warn them about the good and bad points about using canal water.

Do this - collect a sample of your canal water and have it tested at Charlotte County Environmental Health, Commissioner's Building in Murdock. It is on the 2nd. floor, room # 203. Telephone 743-1266. They test for salt and iron only. There is no charge and if there is someone there, they will test it then, otherwise you will have to drop it off. (Take your sample at the end of your intake pipe for accuracy.) Do this at various times of the year as conditions are always changing. As a final thought, the canal system was constructed for navigation and all other uses are secondary. On the plus side, since the gates have been opened, clarity has increased about a foot and the water has more oxygen content and more fish. They are jumping in the canals again!