

# GROW YOUR MARINA OFFERINGS

## DRY STACKS, MOORING FIELDS ENABLE MARINA EXPANSION

In many popular boating areas, the supply of berths is not keeping up with demand. It can be frustrating for marina owners to consider that their business could grow if they had space to accommodate additional boats.

Dry stacks and mooring fields can offer a solution to the space crunch. Each requires the right set of conditions to be viable, along with substantial planning, permitting and proper design.

### Dry stacks

Dry stacks obviously can hold more boats per square foot than wet slips, but they still have some formidable space requirements given that waterfront land is scarce and expensive. For a dry stack building with capacity of 200 boats, you need a minimum of two acres of land in close proximity to deep water (minimum six feet at low tide). The shorter the distance from the building to the water, the less costly the launching and the more efficient the operation, as the forklift will have less distance to travel. You also need docks with enough berthing space to accommodate a minimum of 10 to 15 percent of the total capacity of the dry stack to stage boats.

Key property design considerations include proper flow and circulation of forklifts and other equipment, fuel deliveries/storage, emer-

gency vehicles, and customer parking. Areas of pedestrian/forklift conflicts should be considered.

Sometimes, how to “hide” the building, which can be as tall as five stories, is a major aesthetic concern for local permitting authorities. One solution is to screen the dry stack by placing smaller buildings and foliage nearby.

Though dry stacks require a larger investment than mooring fields, they typically reap a higher return. In addition, many state regulatory agencies and the Army Corps of Engineers tend to favor dry stacks. It's generally considered an environmental benefit to minimize the number of vessels in the water as it reduces the likelihood of fuel spills, waste discharge, etc. In South Carolina, for instance, it's possible to obtain permits for a dry stack in waters designated for shellfish harvesting where wet slip marinas are prohibited.

### Mooring fields


A mooring field is a zone of open water suitable for berthing boats with an anchor, chain and buoy system. It requires a large area of relatively deep water close to a marina with limited wind and wave exposure. Boats berthed in a mooring field can swing freely with the wind

and currents, so extra space between vessels is necessary—for instance, 20 boats may be accommodated in a 20-acre area.

The mooring field usually sits on bottom land owned by the state, so it must be leased. While the moorings do not use actual upland areas, the marina must provide additional amenities such as restrooms for the vessels using the mooring field. Mooring fields are generally more beneficial for municipalities than private facilities as they provide a draw to waterfront communities.

A number of restrictions can affect site location. A mooring field has to be outside all navigation channels. In addition, environmental regulations are fairly stringent. A mooring field cannot be located over submerged sea grass or other vegetation. In Florida, it cannot be in an area that would threaten manatees.

The cost of a submerged land lease for a mooring field is typically greater than that for a marina, as more area is necessary. Nevertheless, given the appropriate site, a mooring field, like a dry stack, can be a good solution to a marina space crunch.

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