

St. John Marina, The Yacht Club at Summer's End

Section 18 continued:

Redevelopment of the upland properties will occur in two phases. Phase I will enhance existing commercial building which make up the Coco Loba complex, Shoreline Inn and Island Blues and renovate the abandoned the abandoned "Voyages" restaurant building. These Phase I improvements for include 120 off street parking spaces, a new 56 seat restaurant, Customs and Border Protection office, a Marina Office, Marina Engineering, Marina Security, fish and farmers market, crew shower and locker facilities, apartments to support marina management, proper solid, hazardous and liquid waste management, proper storm water management and proper fueling. Phase II of the development will be implemented strictly on market demand. Phase II includes four buildings offering additional retail, restaurant, office space, commercial space and six short-term rental units. Fire suppression and potable water demands will be met with roof catchment and cistern storage. In periods of limited rainfall or heavy demand, supplemental water will be purchased from WAPA and Caneel Bay. All water will be stored in existing cisterns with a new transfer piping system installed to maximize the amount of stored water. Domestic wastewater generated from the project will be treated by onsite tertiary WWTPs with the treated effluent reclaimed for use as irrigation and toilet flushing. Irrigation will be supplemented with water from cisterns as necessary. The marina will be providing pumpout service for vessels. As most vessels use chemicals within their holding tanks that could upset the onsite WWTPs, this waste will be collected separately and stored in an underground storage tank that will be periodically pumped out by a private hauler and disposed of in the municipal system. Electrical power will be provided by WAPA via existing distribution lines. The projects includes an emergency generator will provide back up for emergency pumps and emergency lighting at the marina. Individual site-specific generators will supply emergency power for land-based businesses. All electrical distribution lines within the property limits or road right of way will be placed in underground conduit.

The topography of the site is limited with the lowest occupied level set at elevation 10 ft as per the FIRM maps Zone AE. The development is located at the base of the Bordeaux Mountain watershed and the developer has developed a storm water management system that partially treats and passes through this offsite storm water runoff. The storm water management system provides for onsite treatment of the first 1" of storm water runoff and manage onsite flows for storms up to the 24-hour/100-year storm event. The storm water management system is a combination of best management practices, including retention, bio-filtration, and rain gardens. Due to the placement of the storm water management facilities, there will be additional treatment of the storm water runoff from the entire upstream watershed to treat the first 1" of runoff while removing suspended solids, phosphorus and nitrogen.

The project will impact 265 linear foot of the existing altered drainage way for the installation of 2 culverts for a driveway crossing, re-contouring to create a storm water treatment area and the placement of 17 cubic yards of riprap culvert discharge protection.

Section 23 cont.

over areas with 5-30% seagrass and algae coverage and 4,717 ft² over areas with 5%seagrass/algae coverage. The dock will result in a shading impact of 1.42 acres and with the use of the graded decking we are assuming somewhere around a 46% survival rate based on NMFS studies or a 0.8 acre sea turtle foraging habitat loss due to shading.

To minimize the direct impact of pilings the seagrass within the piling footprints will be transplanted. The transplant plugs will be used to seed the area in the northwest corner of the bay that has been impacted by the deposition of sediment from years of uncontrolled storm water runoff.

The boats at the dock will shade another 5.7 acres at maximum occupancy. The slips will be occupied on average 47% of the year. As seagrasses are reported to be impacted after approximately two weeks of shading, this will result in some loss of seagrass within the marina due to vessel shading. This will probably manifest itself as a loss of density as well as denuding of some areas, especially around larger permanently moored boats (if any). It is estimated that as much as 2 acres of seagrass may be lost.

The project also has the potential of impacting SAV within the approximate 8 acres project area due to temporary shading by construction vessels and potential direct construction impact. The direct construction impact will be related to barge movements and spuds and will be minimized through monitoring and delineating spudding and anchoring areas. Barge shading will be mitigated through the periodic relocation of barges to prevent shading impacts. The surrounding SAV could also be impacted by construction related turbidity impacts. This will be abated by sediment and siltation control through detailed planning, training and stringent monitoring.

To minimize impacts the marina has been located far enough offshore to avoid dredging and to avoid the densest seagrass beds. Grated decking will be used to limit shading impacts and seagrass within the piling footprints will be transplanted.

To mitigate for impacts that cannot be avoided, red mangroves will be planted amid the riprap along the entire waterfront, watershed management will be undertaken both on site and in the surrounding watershed to improve runoff water quality, informational buoys will be placed to warn boaters of shallow reefs and seagrass beds, and an intensive cleanup of the bay removing derelict vessels from the seafloor that are impacting seagrass will be undertaken.