

In the Panhandle, within the boundaries of the NWF WMD, a Department wetland resource permit (WRP) is required under section 373.4145, F.S., and chapter 62-312, F.A.C., for the construction, installation, repair, and removal of FOCs within surface waters of the state. These surface waters are described in section 62-312.030, F.A.C., to include the Gulf of Mexico, bays, bayous, sounds, estuaries, rivers, streams, natural lakes that are greater than 10 acres in size and not owned entirely by one person other than the state, and all natural and man-made tributaries to these waters to the landward extent of wetland vegetation (as defined in chapter 62-340, F.A.C.) contiguous with these waters. Permits are not required for exempt activities, as noted below, or for construction in isolated wetlands or uplands.

Elsewhere in the state, the installation, alteration, operation, maintenance, removal, and abandonment of FOCs are subject to the environmental resource permit (ERP) requirements of part IV of chapter 373, F.S., and the applicable Department and Water Management District (Suwannee River, St. Johns River, Southwest Florida, and South Florida WMDs) rules, as adopted under chapter 62-330, F.A.C. The regulatory program for linear projects, such as FOCs, is administered by the Department under operating agreements between the Department and the WMDs as adopted under chapter 62-113, F.A.C. Generally, any installation or repair of a FOC involving the disturbance of the soil surface or otherwise affecting surface water flows, whether in uplands, wetlands, or other surface waters, is considered to be a "work" that requires an ERP. However, there are exceptions for certain exempt activities or activities that fail to "trip" the various WMD permitting thresholds.

Exempt Activities and Noticed General Permits

Both the WRP and ERP programs share two statutory exemptions from permit application and processing requirements under certain circumstances. Section 403.813(2)(m), F.S., provides an exemption for installation (except in Class I and II waters and aquatic preserves) of lines laid on, or embedded in, the bottoms of waters in the state. Section 403.813(2)(n), F.S., provides an exemption for replacement or repair of lines that are laid on, or embedded in, the bottoms of waters of the state. These exemptions are applicable for the FOC segments that are laid on or embedded in the bottoms of the offshore waters of the Gulf of Mexico and Atlantic Ocean. Onshore, FOCs typically are not laid on or embedded in the bottoms of surface waters, and hence these exemptions generally will not apply to inland cable alignments. Additional exemptions may be granted on a case-by-case basis by the Department or a WMD for *de minimis* activities that have negligible individual or cumulative impact on the environment under section 62-4.040(1), F.A.C. (in the Panhandle) and section 373.406(6), F.S. (elsewhere in the state).

In the Panhandle, WRPs are not required for installations in uplands, to the extent the work does not involve any dredging or filling in surface waters of the state, including wetlands connected to those waters. Permits also are not required for lines placed *under* the bottoms of wetlands or surface waters, such as when lines are installed by directional

boring under surface waters. Finally, WRPs are not required for dredging or filling of *isolated* wetlands along the route. Since most cable installations follow uplands within existing road and railroad rights-of-way, many cable installations in the Panhandle do not require any regulatory authorization.

Elsewhere in the state, most activities will not be exempt and will require some form of ERP. This includes when the work is limited to uplands, except where the upland work falls below the permitting thresholds that exist in some WMDs, ~~or is otherwise determined to qualify for an exemption.~~ The Department and WMD rules contain a number of Noticed General Permits (NGPs) for activities that are not exempt by statute or rule and that exceed the permitting thresholds in uplands, wetlands, or other surface waters. NGPs adopted by rule, per section 373.414, F.S., are restricted to activities, which have, either singularly or cumulatively, minimal environmental impact. The NGP in section 62-341.453, F.A.C., should authorize most FOC installations in uplands and herbaceous wetlands, including limited installations in forested wetlands, provided the work meets all the terms and conditions of the NGP. This NGP does not directly authorize installations in open surface waters. However, crossings of open surface waters typically are accomplished by directional boring under wetlands or other surface waterbodies from upland to upland. This directional boring may qualify under the NGP, provided that all of the dimensional requirements are met. Directional drilling and cable laying operations in uplands that cannot meet all of the dimensional requirements of the NGP will require an individual ERP permit, unless the work is expected to result in only negligible impacts on wetlands or other surface waters.

Individual Permits

Installations that do not qualify for either the exemptions or NGPs, as discussed above, are required to undergo an individual permit review. This likely will include most large trenching and directional drilling operations ~~outside of the Panhandle~~, such as those associated with bringing trans-oceanic cables onshore. Trenching operations generate a relatively large amount of excavated material, which is difficult to contain and has the potential to result in turbid runoff reaching receiving waters. Directional drilling minimizes, but does not totally eliminate this problem.

Other Regulatory Programs

In addition to the state program, federal and local governments also may ~~also~~ regulate FOCs. Local regulations are so varied they will not be discussed here. The U.S. Army Corps of Engineers' (USACOE) authority for regulation is under Section 404 of the Clean Water Act and, in navigable waters, under both Section 404 and Section 10 of the Rivers and Harbors Act of 1899. However, except in the Panhandle, the USACOE has issued a limited State Programmatic General Permit (SPGP), allowing the Department to issue a combined state and federal authorization for portions of a FOC installation that are eligible for one of the statutory exemptions or NGPs discussed above.

Regarding the USACOE regulatory program, the placement of FOCs in Florida has often been approved using Nationwide Permit 12, which authorizes the discharge of dredged or fill material associated with installation of the utility lines. However, if temporary or permanent access roads were needed, the project would be evaluated as an Individual Permit (IP). This nationwide permit would cover projects in both Section 10 navigable waters and Section 404 waters of the United States. Some pre-construction coordination with the USACOE may be needed if the project includes mechanized land clearing in a forested area, if it is located in navigable waters, if the utility line exceeds 500 feet in waters of the U.S., or if the line is placed such that it runs parallel to a streambed.

The line itself may be authorized under Nationwide Permit 12, which authorizes the installation of subaqueous transmission lines in navigable waters. The line must be entrenched to a sufficient depth so as not to impact navigation. If the project is located within a federal designated navigation channel, the line must be installed deeper than the authorized project depth.

There may be cases where the project may be judged to have more than minimal impact. In that event, the project would not meet the terms and conditions of a nationwide permit. The USACOE would evaluate this type of project via an individual permit. This individual permit evaluation would allow public comment and a more detailed evaluation of any public interest factors.

Proprietary (Sovereign Submerged Land)

The proprietary (SSL) program is implemented in accordance with the following constitutional, statutory, and rule authority:

- Section 11, Article XI, Florida Constitution - The title to lands under navigable waters, within the boundaries of the state, which have not been alienated, including beaches below the mean high water lines, is held by the state, by virtue of its sovereignty, in trust for all the people.
- Chapter 253, F.S. - State Lands - provides that all activities on sovereign submerged lands must receive prior authorization.
- Chapter 258, F.S. - State Parks and Preserves (Part II: Aquatic Preserves) - lists activities allowed to be authorized in Aquatic Preserves if determined to be clearly in the public interest.
- Chapter 18-21, F.A.C. - Sovereignty Submerged Lands Management - provides management standards and criteria for activities using sovereign submerged lands, including the form of authorization.
- Chapter 18-20, F.A.C. - Florida Aquatic Preserves - provides additional management standards and criteria for any activity to be "clearly in the public interest" for allowable activities that are within one of 41 designated aquatic preserves.
- Chapter 18-18, F.A.C. - Biscayne Bay Aquatic Preserve - stipulates that unless a project is a public necessity, it must be clearly in the public interest and meet the extreme hardship requirements of rule.

- Chapter 18-14, F.A.C. - Administrative Fines for Damaging State Lands or Products Thereof – stipulates violations and determination and collection of fines.

The above statutes and rules require that prior authorization be obtained for structures and uses in, on, over, or under sovereign submerged lands. Such authorization must be obtained from the Board of Trustees. The Department and the four WMDs, which administer the ERP program, act as staff to the Board in processing these authorizations.

In administering their fiduciary and trust responsibilities, the Board of Trustees and the DEP are required to insure the collective rights of the public at large and to receive just compensation for all public and private activities on sovereign submerged lands that generate revenues or exclude traditional public uses (sec. 18-21.001(5), F.A.C.). The Board of Trustees and the DEP must also insure maintenance of the general public's rights to fully use and enjoy sovereign submerged lands for a broad variety of traditional uses. As staff to the Board of Trustees, the DEP and the water management districts' Submerged Lands and Environmental Resources Program issues the required forms of proprietary authorizations to use sovereign submerged lands within the state's territorial limits, including leases, easements, and consents of use, and any associated regulatory permits.

Appropriate forms of authorization for FOCs include public or private easements, and use agreements for cables located within existing easements or public rights-of-way, such as roads and public utility crossings. Public easements are issued ~~for~~ "public purpose" projects, including to those applicants that qualify as a public utility under section 18-21.003(42), F.A.C. (generally, either those entities regulated by the Public Service Commission or ~~to~~ local governments). A listing of companies involved in fiber optic cable communications regulated by the Public Service Commission can be found at www.psc.state.fl.us/mcd/TFBC.html.

Pre-1998 offshore installations and the numerous upland FOC installations crossing sovereign submerged lands at rivers, bays, and other inshore waterbodies, were authorized by public easements since the applicants were understood to be "public utilities" pursuant to rule (sec. 18-21.003(42), F.A.C.). As public utilities, these FOC installations were excepted from the requirement for equitable compensation stipulated by rule (sec. 18-21.004(1)(c), F.A.C.).

However, the current requests for the installation of offshore FOCs appear to be revenue generating/income related activities (sec. 18-21.003(44), F.A.C.), and are therefore subject to the applicable provisions of rule regarding compensation. The rule provision states that, "Equitable compensation shall be required for leases and easements which generate revenues, monies or profits for the user ..." (sec. 18-21.004(1)(c), F.A.C.). Therefore, authorization by private easement with equitable compensation may be the minimum form of authorization consistent with rule. Further, because cable fragility and maintenance needs may effectively preclude other uses of the offshore areas occupied by

FOCs, some such activities may require possessory interest of sovereign submerged lands that may require a lease pursuant to section 18-21.005(1)(b)1. or 2., F.A.C.

FOC installation activities are currently authorized by public easements, based on past practice. As shown in Table 1 and Appendix 1, Florida is one of only three coastal states that requires no fees for the use of sovereign submerged lands for this purpose, other than a \$200 application fee. The use, enhanced value attained, revenue generated, or income derived from the use of public trust lands and resources are not compensated for.

Private easements are issued for "private purpose" projects when ~~it the activity has been shown "...that the easement sought is into be not contrary to the public interest" (s.18-21.010(1)(e)).~~ Easement fees are assessed based on an appraisal which includes two factors: an exclusionary factor for precluding traditional or future public uses and impacting sovereign submerged public trust lands and resources, and an enhanced property value or profit factor gained by the applicant if the easement is approved. Regardless of the form of proprietary authorization, all activities are subject to the resource management provisions of rules 18-21 and 18-20, F.A.C.

Except for exemptions and NGPs, the proprietary authorization is linked to the regulatory permit, where one is required (for works requiring more than a NGP), so that both the regulatory permit and the proprietary authorization are granted or denied at the same time. Proprietary authorizations are not linked to exemptions or noticed general permits. In these cases of exemptions and NGPs, regulatory and proprietary authorizations are granted or denied independent of one another, although often processed together. The state has issued 712 sovereign submerged land easements (678 public; 4 private) for communications crossings since 1977.

Regulatory/Proprietary (SSL) Programs of Other States and Provinces

Table 1 provides a summary of how numerous other states and one Canadian province implement their regulatory and proprietary programs for FOC projects is attached as Table 1. More detailed individual discussion of each of these programs is contained in the attached Appendix 1. A detailed look at the state of Oregon's research and program proposals follows.

Attachment 5

Research on the review and authorization of fiber optic cables in coastal states has been conducted by Dr. Jeff Kroft, Oregon Division of State Lands. A summary of his findings are as follows: the Methods of Review and Authorization of Fiber Optic Cables in Coastal States; Research Conducted by Dr. Jeff Kroft, Oregon Division of State Lands

- Nearly every state requires some form of authorization for the placement of FOCs along ~~its~~^{their} coastline. Although the specific form of authorization varies widely among states, an easement is the most common instrument issued.
- Few states have any administrative rules specifically addressing the placement of FOCs.
- The terms ~~for~~ these authorizations vary widely. However, half of the states issue authorizations either for the project life or in perpetuity.
- The majority of the states have established some nominal application, filing, or processing fees.
- When compensation is required by a state for the use of the sovereign submerged land, it typically consists of a one-time payment. Relatively few states require an annual "rental" for the use of sovereign submerged land by FOCs.
- Compensation for the use of sovereign submerged land, when charged, is most often based on a per linear foot ~~value~~^{charge}.
- Nearly every state recognizes that the placement of FOCs in or on sovereign submerged land is subject to controversy, often based on conflicts with other traditional uses of public trust marine and submerged land resources.
- The easements and other forms of authorization and the methods used by most states ~~for~~ charging for the use of sovereign submerged land for FOCs are extremely simple when compared to the complex contracts for FOC installation negotiated between major private and public holders of rights-of-ways and telecommunications companies.
- Although many states have considered the establishment of cable corridors, few have gone further than simply discussing this approach or restricting where cables may be placed.

Attachment 6

~~State of Oregon Proposals Regarding the Placement of Fiber Optic Cables~~

Subsequent to this research, the state of Oregon introduced the following proposals in Oregon ~~were~~ based on its research findings, administrative rules review of other coastal states, and subsequent public hearings held by Oregon's Division of State Lands:

- Easements for FOCs must be located to protect public trust values, conserve living marine and other seabed resources, and avoid or reduce conflicts with other ocean users and industries.

- While the concept of corridors was strongly considered and has recently been adopted by New Jersey, the concept was not adopted in Oregon. Instead, Oregon will consider each cable application on a case-by-case basis, and consult with the applicant, affected state and federal agencies, and other interested persons to determine the route which best meets the goals of the rules.
- Instead of requiring that all substantive issues concerning public trust values, resource protection, and user conflicts be resolved before a recommendation of approval for a cable easement, approval will be contingent on a determination that the applicant has met the provisions of the rules.
- Cables shall be buried to the greatest extent practicable using best available proven technology. Burial is required to a sufficient depth to avoid conflicts with other ocean users and industries when those users observe standards of prudent seamanship contained in the *United States Coast Pilot*.
- The prorated application processing/cost recovery fee was capped at \$5,000. This is a non-refundable deposit to the Division of State Lands; if the cost exceeds \$5,000, then the applicant is billed for the additional cost. ~~{we must write/explain this a little further so it is understood by a layperson...}~~
- The easement holder is required to inspect cables on a frequency to be determined by the Oregon Division of State Lands in consultation with the easement holder. The purpose of this inspection is to ensure that the cables remain buried and within the authorized area.
- The initial term and term of renewal for a cable easement was increased from 10 to 20 years.
- The Oregon Division of State Lands may require that easement applicants obtain a performance bond to ensure their compliance with terms and conditions of the rules and the easement.

Environmental Impacts of FOC Installation

While it would appear that the majority of FOC impacts are minimal, in certain cases a level of concern is warranted based on on-site environmental conditions and potential impacts to traditional uses of sovereign submerged lands. These concerns include but are not limited to:

- Cable "sweeping" and crushing of coral and other hard bottom communities. During installation, cables can crush, abrade, or cut living hard and soft corals from the bottomlands. One of the recent FOC installations in south Florida resulted in such impacts. The applicant, AT&T, has been cited for noncompliance by the local government, Broward County Department of Natural Resources

Protection, and the U.S. Army Corps of Engineers. Selecting routes to avoid bottom communities can minimize this type of impact. Impacts It also ~~may~~ be ameliorated by the use of divers to assist in moving cable after placement or mitigated for by inspection by divers or remotely operated vehicles (ROVs) during or after installation. However, even with the most up-to-date navigational and mechanical propulsion positioning equipment, it is generally acknowledged that operating in the three-dimensional wave climate of a shallow coast can result in unavoidable impacts where the selected route involves live bottom communities. Pre-construction environmental impact evaluation and analysis of proposed alternative routes can minimize, but not completely eliminate these impacts. However, the preferred routes are to a large degree dictated by the location of available and existing upland electronic processing, handling, and distribution facilities.

- Cable damage during repairs. The practice of grappling to recover and repair damaged cable has the potential of causing additional impacts to bottom resources and to organisms which have colonized the cable itself. This is particularly true since the repaired cable is not returned to its original location but forms an "offset" loop which deviates from the original location by the depth of the water column. The industry has reported that cable breaks result in a cable coiling on the bottomlands, potentially resulting in significant impacts.
- Cable damage to submerged aquatic vegetation (SAV) or emergent aquatic vegetation (wetlands). Impacts to SAV or wetlands generally occur in shallow coastal areas, estuaries, rivers, or other waters of the state. Open trench excavation causes the most significant direct adverse impacts. Newer "directional" drilling technology can minimize these impacts.
- Dredging and/or filling for cable installation at offshore "landings." When a directionally drilled conduit exits the submerged bottom, the exit location may be left exposed, buried for protection, or covered naturally by coastal processes. When the latter two occur, dredging is required to excavate and expose the conduit for cable installation.
- Directional drilling "frak-outs" or other losses of drill hole lubricants or accidents. When drilling encounters certain subsurface conditions like fissures or other sedimentary anomalies, the pressurized fluid "mud" used to lubricate the drill hole can escape into the surroundings. Such escape may cause turbidity plumes and subsequent burial or smothering of sensitive resources, and the potential release of compounds associated with drilling muds.
- Directional drilling site impacts such as discharge of "make-up" water, erosion of tunneling spoils, and loss or spillage of drill hole lubricant. Directional drilling is conducted from an upland site. The severed spoil material removed from the drill

hole is usually stockpiled at this site or is pumped directly into trucks or other containers in the uplands for eventual disposal off-site. Stockpile runoff can result in spoil material running or eroding into surface waters, but can be minimized through the use of best management practices.

- Disposal of cable laying material and drilling, dredging, or other construction waste and debris. Federal permitting agencies have reported cases outside of Florida of the disposal of cable laying materials without notification or approval, resulting damages to coral reefs and sea grassbeds.
- Interference with other public purpose uses such as sewer outfalls and pipelines.
- Interference or elimination of areas for "Treasure Salvage" research and recovery resulting in loss of archaeological data and compensation to the state.

Most of the problems noted above are associated with the initial installation of the cables. The long-term environmental effects, such as habitat modification, are not as well documented. An industry report entitled, "Short-term and Long-term Effects of Placing Fiber Optics Cable on the Benthic Community of the Sea Floor Over the Continental Shelf," is included as **Appendix 2**.

Proprietary Issues

As the number of both off-shore and terrestrial cables increase there is the potential for increasing conflicts between the use of submerged lands for cable installations and other traditional uses of submerged lands. On the Pacific Coast there have already been conflicts with cable installation and commercial fishing activities, with fishing gear becoming entangled on the cables. An issue raised in a recent Southeast Florida installation was whether the off-shore laying of the cables over hard bottom communities would negatively effect the enjoyment of scuba divers. Another concern that has been raised is the laying of cables over off-shore areas that may be potential sources of beach re-nourishment material.

Proprietary, fiduciary public trust issue involve whether these activities are public or private revenue generating, which determines the appropriate form of authorization, and the lack of fees, except \$200 to submit an application. "A disruption in a FOC is reported to result in a loss to the operator of \$5,000 or more a minute." Florida is one of only three states that charge no more than a one time application fee.

Recommendations

Based on recent experience with FOC installations, the following recommendations are offered for the implementation of the regulatory and proprietary programs that affect FOCs.

Regulatory

- Revisions to the statutory exemptions in sections 403.813(2)(m) and (n), F.S. Consideration should be given to revising the current exemptions to include Best Management Practices (BMPs) on acceptable installation techniques, habitat protection measures, and techniques for minimizing potential violations or degradation of water quality in waters of the state. Alternatively, consideration also should be given to superseding the above exemptions with general permits under the provisions of section 403.813(3), F.S.
- Develop a NGP that specifically addresses directional drilling operations, including those associated with offshore operations. Because directional drilling results in less impacts than either open trenching or laying cables on the bottom, consideration should be given to developing a new NGP, or revising the existing NGP to specifically authorize this type of installation. However, above certain thresholds and criteria, directional-drilling operations should continue to be regulated through individual permits to allow a full evaluation of potential environmental impacts.
- Provide a-an exemption from for ERP permitting for utility line (electric, water, telephone, and cable) installation in uplands that involves minimal displacement of soil and require digging of no open trenches or creation of excavated spoil piles, provided that the spoil is disposed of at a suitable site.

Proprietary

- Identification of corridors, particularly for offshore connections. Corridors should be located to eliminate or minimize impacts on hard bottom resources and conflicts with other uses such commercial and recreational fishing, scuba diving, and potential beach re-nourishment borrow areas. Any review of potential corridor locations should distinguish between temporary impacts to traditional uses (e.g.: exclusion of diving activities during cable installation for safety reasons) and permanent impacts to traditional uses (e.g.: exclusion of certain areas as source of beach sand or restriction on fishing activities to avoid snagging of cables). Consideration should be given to specifically identifying acceptable corridors through a RFP process.
- Revisions to proprietary rules to include the use of BMPs, as discussed in the Regulatory section above, as a condition for all forms of consent.

- **Assessment of easement and severance fees.** Consideration should be given to revising the existing severance fees in rule 18-21.011(3)(a), to reflect the current market value of these materials. As a general policy, the Trustees' require equitable compensation for activities on submerged lands that generate revenues, monies, or profits for the private user (see rule 18-21.004(1)(c), F.A.C.). However, fiber optic cables and other telecommunication lines have been historically authorized by a public easement, and therefore not subject to payment of an easement fee. The Trustees' previously requested the DEP to develop recommendations for easement fees, including those for public utilities, and staff is continuing to gather data to develop such recommendations.

The historic rationale for not assessing fees for public purpose projects, including public utilities such as telecommunications, is that such projects provide benefits to the public at large. Sec. Rule 18-21.003, F.A.C., defines the term "public utilities," in part, as those entities providing services regulated by the Public Service Commission (PSC). See www.psc.state.fl.us for information on the PSC's regulation of utilities, including telecommunications companies.



Department of
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FILE

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We appreciate your cooperation. If you have any questions, please contact me at 561/681-6634.

Sincerely,

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