Streamlining Resiliency: Regulatory Considerations in Permitting Small-Scale Living Shorelines in Florida [1]

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Introduction to Living Shorelines Permitting

"Living shoreline" is a catch-all phrase that describes a riparian area managed with restoration techniques that use natural material such as oyster reef, mangroves, and marsh grasses to stabilize the area and prevent erosion. Living shorelines offer a valuable and environmentally friendly means of stabilizing the shore while restoring and enhancing estuarine habitats (Bilkovic, Mitchell, La Peyre, and Toft 2017). Techniques for maintaining living shorelines are being widely touted as "greener" sea-level rise adaptation strategies than traditional shoreline hardening techniques, such as seawalls (Bilkovic et al. 2017). In addition to shoreline stabilization and estuarine habitat protection, materials used in living shoreline projects also improve water quality by filtering upland stormwater runoff (Gedan, Kirwan, Wolanski, Barbier, and Silliman 2011).

Living shorelines in Florida are typically constructed in the navigable waters of the United States, in state waters, and over sovereign submerged lands. Therefore, federal, state, and sometimes local agencies have regulatory authority over their construction (Pace 2017). Because living shorelines are considered to be beneficial to the environment, these agencies have undertaken coordinated efforts to reduce the regulatory burden required to construct them,

Figure 1. Living shorelines use natural materials like salt marsh grasses to prevent coastal erosion. In just four years, the progress of a living shoreline project in Franklin County, FL is substantial.
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particularly when they are relatively small-scale and involve individual shoreline property owners.

This publication outlines the various permit options available for constructing living shorelines while focusing on the new, small-scale living shorelines permit exemption. Keep in mind that every shoreline is unique. Before proceeding with a project, it is highly recommended that individuals seeking to install a living shoreline contact a UF/IFAS Extension Florida Sea Grant agent to learn about the benefits of living shorelines and options suitable to the locale. UF/IFAS Extension Florida Sea Grant agents will also be able to make referrals about knowledgeable experts in shoreline management and regulations to assist in the construction and permitting process and to ensure that the project does not affect neighboring properties or any protected species and their habitat.

One of the first things to consider before planning a living shoreline project is whether or not it will occur on sovereign submerged lands, which are state owned. Although there are many instances where submerged lands are privately owned, most submerged lands adjacent to the shoreline are held by the state (Fla. Stat. § 253.12(1) 2017). In these cases, the property owner must first obtain sovereign submerged lands authorization from the Florida Department of Environmental Protection (DEP) before proceeding with a permit application. This authorization can come in the form of an exception, a lease, a letter of consent, or consent by rule (Fla. Admin. Code Ann. r. 18-21.005 2009). More detail on the sovereign submerged lands authorization is provided later in this publication.

Small-Scale Living Shorelines Permit Exemption

The DEP regulates the construction of living shorelines through Environmental Resource Permits, but it has created an exemption for qualifying small-scale projects (Fla. Admin. Code Ann. r. 62-330.051(12)(e), 2013). Many individually owned shorelines on public and private property are small enough to fall within the exemption of Ch. 62-330.051(12)(e) of the Florida Administrative Code (Florida Living Shorelines 2017).

To qualify for an exemption, the living shoreline project must meet several criteria and accompanying stipulations (Figure 1).

- The project must be 500 linear feet or less.
- The project must be located no further than 10 feet waterward of the mean high water line or the ordinary high water line in fresh waterThe project must be located no farther than 10 feet waterward of the mean high water line. (Note: When a breakwater is used, this refers to the waterward toe of the breakwater.)
- Plantings must be native wetland plants appropriate for the site and must be obtained from commercially grown stock.
- Biodegradable natural fiber logs or mats that are secured in place, such as with the use of wooden stakes, may be used if necessary to support the vegetative plantings.
- The living shoreline project must also include plans to remove invasive plants.
- Qualifying projects may not involve depositing fill materials in surface waters or wetlands (Fla. Stat. § 373.403(14) 2017) unless necessary for a breakwater (Fla. Admin. Code Ann. r. 62-330.051(12)(e) 2013).
- A breakwater may be used if permanent wave attenuation is necessary to maintain the shoreline vegetation (Fla. Admin. Code Ann. r. 62-330.051(12)(e) 2013). If the project requires a breakwater, the waterward toe of the breakwater must extend no more than 10 feet waterward of the mean high water line or ordinary high water line, with a top height of no more than the mean or ordinary high water elevation. Any such breakwater must be composed predominantly of natural oyster shell (in mesh bags having openings of no more than 3 inches, or securely fixed matting) or other stable, non-degradable material. Breakwaters must not be placed within three feet of any submerged grass or emergent marsh vegetation and must have gaps at least 5 feet wide located at least every 75 feet along the breakwater to allow the flow of water and the passage of fish and aquatic wildlife (Fla. Admin. Code Ann. r. 62-330.051(12)(e) 2013).

There must be at least one of these openings.

According to DEP (2017a), projects that meet these criteria fall below permitting thresholds and do not cause significant individual or cumulative impacts; therefore these projects would qualify for an exemption. If the project qualifies for the exemption, the shoreline owner should pursue the verification of exemption through DEP's website: https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/forms/request-verification-exemption, in order to ensure that it is also "green-lighted" by the US Army Corps of Engineers ("the Corps"), discussed below.

If the project does not qualify for an exemption, 62-330 of the Florida Administrative Code provides for those common minor projects that qualify for a general permit. However, there is no specific general permit for the installation of a living shoreline (Florida Department of Environmental Protection 2017b). If the project does not qualify for a general permit, it will likely require a more comprehensive review to receive an individual Environmental Resource Permit.

State of Florida Sovereign Submerged Lands Authorization

As stated earlier, even if a living shoreline project is exempt from permitting, its construction will likely occur on state-owned submerged lands and will need sovereign submerged lands authorization (Fla. Stat. § 253.12(1) 2017).

The state of Florida holds title to sovereign submerged lands under Chapter 253, F.S., and 18-21, FAC (Fla. Admin. Code Ann. r. 62-330.051 2013). In this case, the state is operating in a proprietary capacity, rather than a regulatory capacity. The governor and cabinet, sitting as the board of trustees of the Internal Improvement Trust Fund, own sovereign submerged lands in trust for the use and benefit of the people of the state pursuant to the state constitution (Fla. Stat. § 253.001 2017; Fla. Const. art. X, § 11).

The DEP performs the major functions related to the management of submerged lands for the board of trustees (2017; Fla. Admin. Code Ann. r. 18-21.002 2009). The board has delegated some but not all the authority to authorize use of sovereign submerged lands to DEP. Authorization to use these lands can come in the form of an exception, a lease, a letter of consent, or consent by rule (Fla. Admin. Code Ann. r. 18-21.005, 2009). Unless the submerged land is owned by a public or private non-state entity (which is rare), a living shoreline project will need sovereign submerged lands authorization, regardless of whether the activity is exempt from DEP permitting.

Unlike the DEP regulatory exemption, there is no exemption for living shorelines in the rule governing submerged lands authorizations, and there is nothing to suggest that they would be given authorization under the consent by rule provision (Fla. Admin. Code Ann. r. 18-21.005 2009; Fla. Stat. § 403.813 2017). Instead, it would appear that living shorelines require a letter of consent, based on two applicable activities set forth in the rule. Rule 18-21.005(1)(c)15., FAC, requires a letter of consent for "[h]abitat restoration, enhancement or permitted mitigation activities without permanent preemption by structures or exclusion of the general public…." This seems to apply to living shorelines that do not contemplate an oyster breakwater—arguably a permanently preemptive structure. If an oyster breakwater is included, then the applicant would also need to consider 18-21.005(1)(c)6., FAC, which allows for authorization by letter of consent for "[p]lacement, replacement, or repair of riprap, groins, breakwaters… no more than 10 feet waterward of the line of mean or ordinary high water."

US Army Corps of Engineers Options for Small-Scale Living Shorelines Permitting

The Corps currently has four regulatory mechanisms in place to streamline permitting for living shorelines: State Programmatic General Permit V, and nationwide permits 13, 27, and 54. Two of these—nationwide permits 13 and 27—encompass a broader spectrum of activities that living shorelines fall within: bank stabilization and habitat restoration, respectively. Nationwide permit 54 was recently enacted by the Corps specifically for small-scale living shorelines. However, for those living shorelines that have been verified as exempt by DEP, SPGP V, discussed below, allows DEP to "green light" the project, obviating any Corps review.

Department of the Army Permit State Programmatic General Permit (SPGP V)

State Programmatic General Permits, or SPGPs, are general permits designed to avoid the inefficient duplication of permitting between the Corps and state regulatory programs (US Army Corps of Engineers 2017a).

The Corps has adopted State Programmatic General Permit V, a fast-track approach that allows a spectrum of activities that are exempt under the state of Florida's rules to receive little or no further review. This permit specifically includes state-exempted living shorelines. Therefore, a project that qualifies for a small-scale living shorelines permit exemption in Florida would also qualify under SPGP V. In this case, the shoreline owner would not need to pursue the other nationwide permits.

SPGP V avoids duplication of effort between the Corps and the DEP for a variety of minor projects located in Florida that are also located in US waters (Florida Department of Environmental Protection 2017c; Fla. Stat. § 373.4144(2) 2017). The permit reduces the need for separate approval from the Corps for the approved project types. Approved

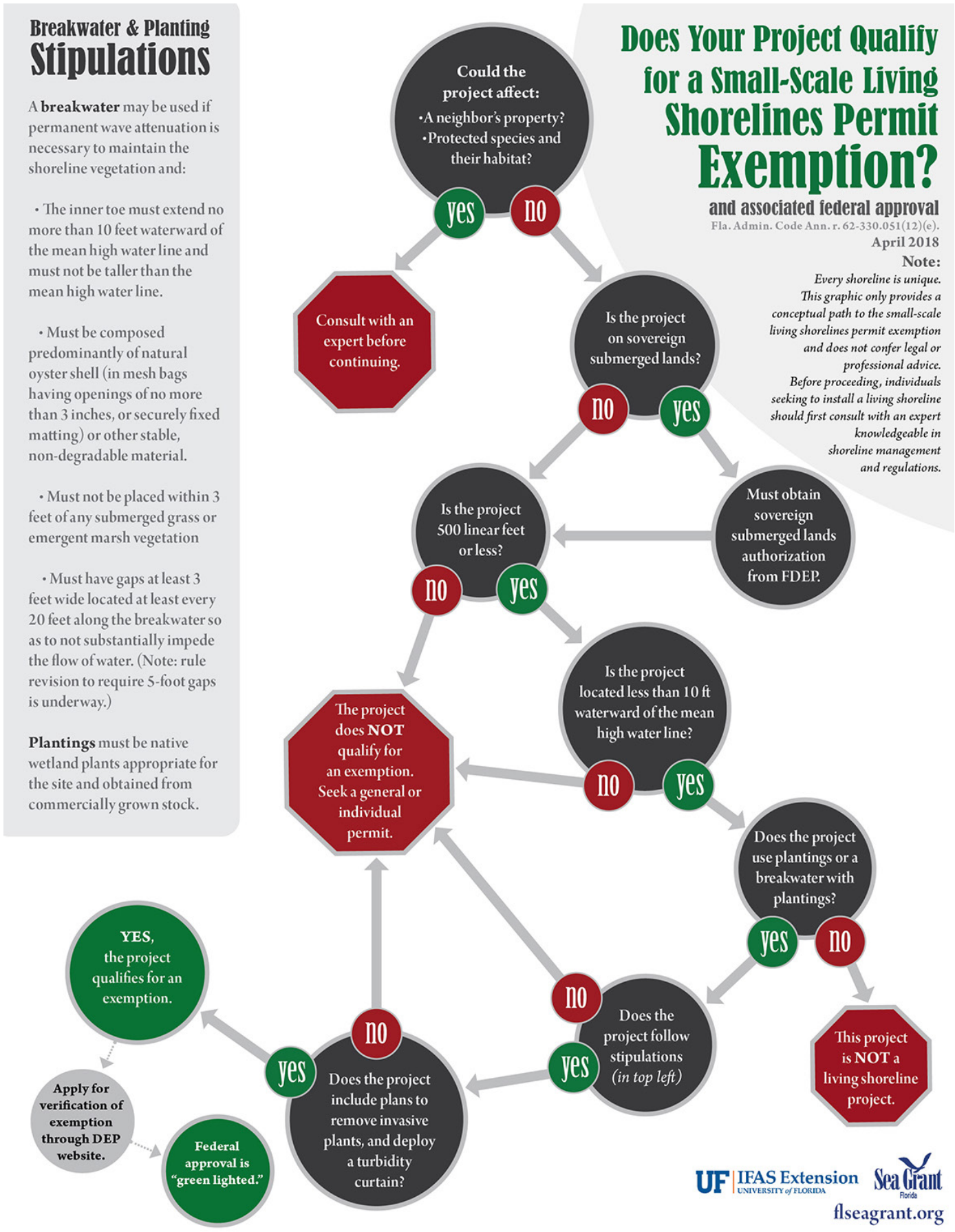

Figure 2 A conceptual path to small-scale living shorelines permit exemptions in Florida. Credit: Florida Sea Grant

project types include shoreline stabilization, specifically including living shorelines exempted under 62-330(12)(e), FAC (US Army Corps of Engineers 2016).

Eligible permit applications are submitted directly to the DEP, which is authorized to employ a "stoplight approach" to processing. Instead of immediately forwarding a copy of the applications to the Corps, DEP will review the project and give it a ranking. Projects ranked as green will be processed by DEP and will not be forwarded to the Corps. Projects ranked as yellow will be forwarded to the Corps, and the Corps must reply whether they wish to treat these projects as red, yellow, or green with the addition of special conditions. Finally, projects ranked as red will be reviewed by the Corps and DEP separately (US Army Corps of Engineers 2016). Projects are likely to receive a ranking of yellow or red if any adverse impacts to the environment are suspected (US Army Corps of Engineers 2016).

Under SPGP V, the following stipulations have been placed on living shorelines (US Army Corps of Engineers, 2016):

- Only native plant species will be planted.
- Living shorelines must not be more than 500 linear feet in length.
- Living shorelines must not be more than 35 feet waterward of the high tide line (note that the DEP exemption requires living shoreline construction to remain within 10 feet of the mean high water line (Fla. Admin. Code Ann. r. 62-330.051(12)(e) 2013)) or result in more than a half-acre area between the natural shoreline and the breakwater structure.
- No discharge of earthen fill material, other than earthen material associated with vegetative planting, is allowed.
- Construction, maintenance, and removal of approved permanent, shore-parallel wave attenuation structures are authorized. Approved permanent wave attenuation materials include oyster breakwaters, clean limestone boulders, and prefabricated structures made of concrete rebar that are designed in a manner that cannot trap sea turtles, smalltooth sawfish, or sturgeon. Reef balls that are not open on the bottom, triangle structures with a top opening of at least 3 feet between structures, and reef discs stacked on a pile may be used.
- For oyster breakwaters:
  - Reef materials shall be placed in a manner to ensure that materials (e.g., bagged oyster shell, oyster mats, loose cultch surrounded and contained by a stabilizing feature, reef balls, and reef cradles) will remain stable and prevent movement of materials to surrounding areas.
  - Materials must be placed in designated locations (i.e., shall not be indiscriminately/randomly dumped) and shall not be placed outside of the total project limits.

The SPGP V remains valid for five years from the date of issuance unless suspended or revoked by issuance of a public notice by the district engineer (US Army Corps of Engineers 2016). The Corps, in conjunction with other federal resource agencies, will conduct periodic reviews to ensure that continuation of the permit during the five-year period is not contrary to the public interest. If revocation occurs, all future applications for activities covered by the SPGP V must be evaluated by the Corps (US Army Corps of Engineers 2016).

Reevaluations of permits may occur at any time the circumstances warrant it (US Army Corps of Engineers 2016). Circumstances that could require a reevaluation include, but are not limited to:

a. The Applicant fails to comply with the terms and conditions of the permit.

b. The information provided to obtain the permit proves to have been false, incomplete, or inaccurate.

c. Significant new information surfaces that this office did not consider in reaching the original public interest decision (US Army Corps of Engineers 2016).

The time limit for completing the work authorized by the SPGP V ends on July 26, 2021 (US Army Corps of Engineers 2016).

Letter of Permission

In instances where a living shoreline activity does not fall within the state exemption, and hence SPGP V may not be applicable, the Corps has created a simplified individual permit process for certain listed activities through letters of permission (33 C.F.R. § 325.2(e)(1)). Among the categories to which the letter applies in Florida and which may apply to living shorelines are "erosion control activities not to exceed 0.2 acre of fill" (Jacksonville District Corps of Engineers 1996).

Nationwide Permits

Nationwide permits, or NWPs, are federal permits that apply uniformly to certain classes of activities in jurisdictional

waters and wetlands throughout the country (US Army Corps of Engineers 2017a,b). The Corps issues NWPs to activities that occur in the navigable waters of the United States under section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act of 1899 (US Army Corps of Engineers 2017b). NWPs are only awarded to activities that result in no more than minimal individual and cumulative adverse environmental effects and are intended to limit the amount and delay of paperwork (US Army Corps of Engineers 2017b;). There are now 54 NWPs (US Army Corps of Engineers 2017b). Three of these are especially relevant to the construction of a living shoreline: NWP 13, NWP 27, and, most recently, NWP 54.

NWP 13—Bank Stabilization

NWP 13 authorizes relatively minor activities designed to shore up eroding banks. It provides for multiple methods of bank stabilization to be used, including hard structural measures (such as bulkheads and revetments), vegetative options, and hybrid techniques that involve both hard materials and vegetation components (US Army Corps of Engineers 2017c). For example, a bank may be graded, plant materials may be installed to stabilize portions of the bank, and riprap may be placed at the bottom of the bank for toe protection. It is important to note that NWP 13 has always had the flexibility to authorize a variety of types of bank stabilization measures depending upon the environment (US Army Corps of Engineers 2017c).

NWP 27Aquatic Habitat, Restoration, Establishment, and Enhancement Activities

NWP 27 includes activities associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas; the restoration and enhancement of non-tidal streams and other non-tidal open waters; and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities increase aquatic resource functions and services (US Army Corps of Engineers 2017d). Activities authorized by this NWP include but are not limited to the removal of accumulated sediments; the installation, removal, and maintenance of small water-control structures, dikes, and berms; and activities needed to reestablish vegetation, including plowing for seed bed preparation (US Army Corps of Engineers 2017e).

3NWP 54—Living Shoreline

NWP 54 was made effective in March 2017 (US Army Corps of Engineers 2017f). NWP 54 complements NWPs 13 and 27 to provide general permit authorization for a living shoreline approach to bank stabilization. This NWP authorizes structures and work in navigable waters of the United States and discharges of dredge or fill material into waters of the United States for the construction and maintenance of living shorelines. The permit defines living shorelines as consisting mostly of native material and incorporating vegetation or other "soft" elements alone or in combination with "hard" shoreline structures such as

Figure 3. For living shorelines projects, oyster shell must be contained using mesh bags.
Credits: Laura Tiu, Florida Sea Grant

oyster reefs (US Army Corps of Engineers 2017f). NWP 54 provides for limiting the placement of structures and fills to within 30 feet of the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes. The project must be 500 feet long or shorter along the shore.

Conclusion

Living shorelines provide a viable and resilient approach to protecting upland properties while restoring and enhancing the ecologically valuable riparian zone along Florida's coasts. Both state and federal agencies have worked to facilitate a streamlined process to increase the use of living shorelines, especially for small-scale projects carried out by individuals. Regardless of the size of the living shoreline, it is recommend to contact a UF/IFAS Extension Florida Sea Grant agent to learn about the benefits of living shorelines and options suitable to the locale. UF/IFAS Extension Florida Sea Grant agents will also be able to make referrals about knowledgeable experts in shoreline management and

regulations to ensure that the project will not run into any permitting difficulties.

Additional Resources

Florida Master Naturalist Program Coastal Shoreline Restoration Course (http://masternaturalist.ifas.ufl.edu/docs/FMNP_Coastal_Shoreline_Restoration_Flier.pdf)

Florida Living Shorelines (http://floridalivingshorelines.com/)

NOAA Fisheries Living Shorelines (https://www.fisheries.noaa.gov/insight/living-shorelines)

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