

**PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT
TECHNICAL POLICY**

POLICY NO.: Technical Policy, TECH-024

EFFECTIVE DATE: May 18, 2021

POLICY NAME: Avoidance and Minimization Requirements When a Project Site Contains Regulated Riparian Habitat

PURPOSE: To clarify, Section 16.30.040.A.1 of the Floodplain Management Ordinance (Ordinance) that states a permit applicant shall provide “*Evidence that no reasonably practicable alternative exists to the proposed impact on mapped habitat and evidence that the impact has been minimized to the maximum extent practicable.*” This policy provides guidance on avoiding and minimizing impacts to mapped regulated riparian habitat (hereafter riparian habitat) during the planning, entitlement and permitting processes.

BACKGROUND:

The primary purpose of Chapter 16.30 of the Ordinance, entitled Watercourse and Riparian Habitat Protection and Mitigation Requirements, is to preserve natural floodplain functions. A functioning floodplain provides multiple benefits, including groundwater recharge, flood attenuation, erosion control, and improved surface water quality and ensures the long-term survival of native plants and wildlife dependent upon riparian habitat. These functions remain intact when riparian habitat along watercourses, floodplains, and areas of shallow groundwater are preserved and enhanced.

In 2005, the Flood Control District Board of Directors modified Chapter 16.30 and adopted the Riparian Classification Maps that designate regulated riparian habitat. The Ordinance requires that a property owner avoid and/or minimize disturbance to riparian habitat. This is accomplished when staff provides accurate information to the public during the site planning stage and works with either the property owner, applicant, developer, and/or consultant during the review of the development.

On May 19, 2015 the Board of Supervisors approved the Comprehensive Plan Update (hereafter Pima Prospers). Pima Prospers established a goal to require development to avoid floodplain and riparian habitat as shown on the included Regional Hydrology Maps, which consists of riparian habitat, FEMA and local floodplains. Specifically, Pima Prospers, Section 4.9 Flood Control and Drainage Element, Goal 1 Implementation Measures, a., states that the District shall “*Require, when appropriate, avoidance of development in Resource Areas as identified in the included Regional Hydrology Maps.*” This policy will identify when avoidance may be appropriate.

The District’s goal in implementing this policy is to clarify what “no reasonable practicable alternative” means and ensure that design alternatives that avoid and/or minimize disturbance have been considered along with other factors before the disturbance of riparian habitat is allowed.

POLICY:

When a property or project site is impacted by riparian habitat, permit and entitlement applications are reviewed for avoidance of this habitat. Avoidance of disturbance to riparian habitat may require the applicant to be flexible during site design, and can be accomplished by coordinating with the District to identify alternate locations for the improvements, use of modified development standards, and/or use of sustainability features in site planning on a project site. While the Ordinance and Pima Prospers prioritize avoidance and minimization of disturbance to riparian habitat there will be situations when impacts to riparian habitat cannot be avoided. Land planning and development must balance various priorities including avoidance and minimization of disturbance of riparian habitat. Balancing those priorities can be best accomplished with site planning and reasonable flexibility by related interests. This policy provides guidance to help the Regional Flood Control District (District) staff, applicants, and the public consider what reasonably practicable avoidance and minimization means in order to provide consistent expectations to the regulated public and guidance for staff to provide consistent review criteria.

Riparian habitat classifications and/or boundaries may be adjusted per Technical Procedure TECH-104 prior to applying this policy.

DEFINITIONS:

The following definitions shall apply to this Technical Policy:

1. Disturbance is defined in Technical Policy TECH-004, Delineating Riparian Habitat Disturbances. The following are examples of riparian habitat disturbances:
 - Removal of native vegetation, including understory vegetation (small trees, shrubs, perennials, annuals, and grasses),
 - Removal or placement of soil,
 - Removal of woody debris, and other organic matter,
 - Human encroachments such as fencing, structures and placement of impervious surfaces (i.e.: pavement or sidewalks),
 - Parking of vehicles, or placement of other materials that disturbs existing grade.
2. Development Review refers to the review and permitting process of residential subdivisions and commercial development. This includes residential plats, land division for non-residential development and site permits.
3. Entitlement Review refers to the recommendation provided by District staff to the Development Services Department, Planning and Zoning Commission, Design Review Committee and/or Board of Supervisors for applicant requests to planning or zoning to change permissible yield and/or use of a property. This applies to comprehensive plan amendments, rezoning, variances, minor land division, lot splits, and plat note waivers.
4. Single lot development refers to improvements on individual parcels of land that typically goes through the building permit process, including structures, fencing and grading.

A. SINGLE LOT DEVELOPMENT:

Unless this policy was previously applied during the rezoning, entitlement or development review process for the subject property, when locating proposed and future improvement(s) on a single residential lot that contains riparian habitat, the following shall be considered and applied to the project:

1. Avoidance. When only a portion of a parcel or project site contains riparian habitat, the following shall be applied, unless adequately justified as outlined in Section F:
 - a. Locate the improvement(s) outside the riparian habitat.
 - i. In order to avoid riparian habitat, a request to reduce minimum setbacks for structures to property lines and/or distances between buildings can be made to the Development Services Zoning Administrator/Inspector. The modification shall be processed pursuant to Section 18.07.080 and no fee is applied to the request.
 - b. Provide the location of a construction staging area on the site plan, when applicable. Locate the construction staging area outside of the riparian habitat or in an area that is already disturbed or will be disturbed by the improvement being permitted, such as a driveway.
 - c. Plan ahead for future improvements and provide a buffer between the currently proposed improvement(s) and the riparian habitat to account for planned or unplanned future improvements.
2. Minimize. When the entire property is designated as riparian habitat, or if riparian habitat cannot be avoided, the following minimization techniques shall be applied, unless otherwise justified:
 - a. Avoid existing drainage patterns or swales containing denser, more diverse vegetation.
 - b. Avoid areas that provide riparian habitat connectivity to adjacent properties.
 - c. Locate the improvement(s) on bare ground or existing disturbed areas.
 - d. Avoid mature tree species, including those specific to riparian areas such as Fremont cottonwood, Arizona sycamore, and Arizona black walnut.
 - e. When two classifications exist on a parcel, locate improvements within the lesser class habitat.
 - f. Use elevation methods that create the least amount of disturbance. The preferred method of elevation is a stem wall foundation.
 - g. Reduce the construction footprint, including driveway width and/or length of access from right of way, walled in patio areas and location of detached accessory structures to reduce pedestrian or vehicular circulation lengths.
 - h. Place utilities in one location, or within a driveway or access easement.
 - i. Locate the septic system to where it provides a buffer between site improvements and the riparian habitat.
 - j. Minimization of disturbance includes preventing the introduction and spread of invasive species. To that end, invasive species control efforts shall include:
 - i. Use on-site soils whenever possible.
 - ii. When use of on-site soils is not possible, use of clean fill rather than top soil, which may have seeds of invasive species in it.
 - iii. Cleaning mud off of construction vehicles prior to entering the site to reduce seed transmission.

B. DEVELOPMENT REVIEW PROJECTS:

Unless projects were subject to rezoning or other entitlement processes that utilized this policy, projects that are required to use the development review process shall follow the criteria listed below.

1. Avoidance. When only a portion of a parcel or project site contains riparian habitat, the following shall be applied, unless adequately justified as outlined in Section F:
 - a. Locate building and construction envelopes outside of the riparian habitat. In order to avoid riparian habitat, minimum lot size requirements for subdivision lots may be modified pursuant to Section 18.07.080.
 - b. Use modified development standards for parking pursuant to 18.07.080.
 - c. Design drainage infrastructure to avoid riparian habitat and direct flows to enhance existing habitat.
 - d. Locate the construction staging area outside of the riparian habitat.
 - e. Pursuant to Pima County Zoning Code and Development Services policies, when riparian habitat is avoided and preserved, other mitigation requirements may be reduced.
2. Minimize. When the entire property is designated as riparian habitat, or if riparian habitat cannot be avoided, the following minimization techniques shall be applied, unless otherwise justified:
 - a. Minimize construction footprint. Consolidate buildings, supporting site infrastructure and other impervious areas to reduce the building footprint to demonstrate all efforts are being made to avoid the riparian habitat.
 - b. Locate improvements and construction envelopes in previously disturbed areas.
 - c. When drainage infrastructure impacts riparian habitat it shall be designed to minimize the impact.
 - d. When roads and utility crossings impact riparian habitat, locate the infrastructure perpendicular to riparian habitat corridors and where riparian corridors are the narrowest.
 - e. When a proposed road crossing requires supporting drainage infrastructure that impacts riparian habitat, the road crossing shall be designed to minimize encroachment and allow for the movement of wildlife, such as dip crossings or concrete arch structures.
 - f. Minimization of disturbance includes preventing the introduction and spread of invasive species. To that end, invasive species control efforts shall include:
 - i. Use on-site soils whenever possible.
 - ii. When use of on-site soils is not possible, use of clean fill rather than top soil, which may have seeds of invasive species in it.
 - iii. Cleaning mud off of construction vehicles prior to entering the site to reduce seed transmission.

C. REZONING AND ENTITLEMENT PROJECTS:

Pima Prospers, Section 4.9 Flood Control and Drainage Element established Flood Control Resource Areas (hereafter Resource Areas) as shown on the Regional Hydrology Maps which requires, when appropriate, avoidance of development within these Resource Areas.

Projects that require development entitlements provide an opportunity through site planning to avoid the disturbance of riparian habitat. Requests that propose avoidance or minimize impacts to riparian habitat will be supported by the District.

1. Flexibility, including development clusters and modification of development standards shall be encouraged to reduce development footprints while achieving not less than minimum allowed yields and accommodate up to maximum permitted yields. The following methods can be used to reduce development footprints:
 - a. Provide a reduction in building setbacks,
 - b. Reduce residential lot size,
 - c. Place functional square footage on multiple levels,
 - d. Decrease road width and provide off-street parking, and
 - e. Reduce parking lot size.
2. For Comprehensive Plan Amendment and rezoning requests received after the approval of this Technical Policy, when proposed development reduces water availability to riparian habitat, first flush and/or flow from proposed drainage infrastructure will supplement the water availability to the riparian habitat.
3. For Comprehensive Plan Amendment and rezoning requests received after the approval of this Technical Policy, when a project has riparian habitat that is denuded and the adjacent off-site upstream and/or downstream habitat is viable, the proposed drainage infrastructure will be designed to direct flow to the riparian habitat.
4. Road crossings shall be designed with only minor encroachment.
5. When avoidance is not possible and encroachment is proposed the District may recommend rezoning policies and/or conditions limiting encroachment and/or establishing mitigation criteria such as water supply design, plant density, size and species mix.

D. WAIVER OF THE SUBDIVISION PLAT REQUIREMENT OR A VARIANCE TO PIMA COUNTY CODE REQUIREMENTS:

1. Waiver and variance requests that result in an increased disturbance of riparian habitat will not be supported by the District. District staff will recommend denial or require special conditions during a hearing for any request that propose an increase of disturbance to riparian habitat.

E. TYPE II OR TYPE III CONDITIONAL USE PERMIT:

Requests to modify or expand the development potential of a site shall take the following criteria into account:

1. Requests for a Conditional Use Permit that result in an increased disturbance of riparian habitat will not be supported by the District. District staff will recommend denial or apply special conditions for any request that does not avoid or apply measures for minimizing impacts to riparian habitat.
2. When two classifications of riparian habitat impact a property and one type of classification is Important Riparian Areas (IRA), preservation of the IRA in a natural or undisturbed condition is preferred.
3. Road crossings and the extension of utilities which impact riparian habitat are the only disturbances that will be supported.

4. District staff will not support a request that disturbs more than 5% of riparian habitat classified as IRA.

F. JUSTIFICATION OF DISTURBANCE:

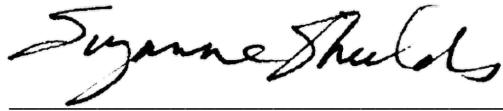
The following can be considered reasonable justifications for disturbing regulated riparian habitat. These justifications do not eliminate the requirement for mitigation when more than 1/3 of an acre of habitat is disturbed:

1. When the entire property is impacted by riparian habitat, disturbance will be supported when the natural floodplain function is preserved and encroachment in the following areas is avoided to the greatest extent practicable;
 - a. floodplain and erosion hazard areas,
 - b. densely vegetated areas,
 - c. natural flow paths, and
 - d. areas near riparian habitat corridors on adjacent properties.
2. Development proposals on parcels with more than one classification of habitat will be reviewed for opportunities to avoid and minimize disturbance of the higher classification of riparian habitat.
3. The purpose of the proposed improvement relative to existing improvements and uses. For example, a detached garage may be more appropriate to keep near a single-family residence than a barn.
4. New improvements that are placed within riparian habitat that was disturbed prior to the effective date of the Riparian Classification Maps if the area has remained disturbed and no habitat regrowth has occurred. This may apply to all or part of the historical disturbance area.
5. New redevelopment and infill projects that are placed within riparian habitat that was disturbed prior to the effective date of the Riparian Classification Maps, whether or not habitat regrowth has occurred, as these projects have the underlying goal of protecting undisturbed natural areas.
6. Placement of solar panels that require special site conditions to function, such as a particular orientation, sun exposure, etc.
7. Placement of a “low impact” improvement where the location is essential to the function of the improvement and the improvement is necessary to serve the project or property, such as a well site, in which placement within riparian habitat is unlikely to lead to additional improvements.
8. Establishing legal and physical access when the only access to the buildable area on a parcel cannot avoid the riparian habitat.
9. Grading and/or paving of physical access that crosses riparian habitat within a previously established access easement.
10. Site constraints, such as rock outcroppings, Hillside Development Zone (HDZ) restrictions, floodway, floodplain and erosion hazard setback limitations, cultural resource conflicts, or other site conditions that restrict placement of improvements.
11. Riparian habitat that lacks continuity (“islands” of riparian vegetation) and a natural source of water within urban and designated growth areas may be disturbed without demonstrating avoidance.
12. Improvements disturbing riparian habitat necessary for public safety do not require demonstration of avoidance. Examples include placement of road intersections to increase visibility, drainage improvements, or other public safety considerations.
13. Improvements located pursuant to a Section 404 Permit.
14. When the Total Vegetative Volume of the habitat is $0.5 \text{ m}^3/\text{m}^2$ or less and does not provide hydrologic connectivity to other riparian habitat areas.

G. IMPACTS LESS THAN 1/3 ACRE:

To ensure the purpose of the Ordinance and Pima Prospers is met, staff reviews projects for impacts to riparian habitat, regardless of the size of proposed disturbance. By reviewing development proposals, staff can assist applicants with site planning that avoids and/or minimizes impacts to riparian habitat, prevents the need for a riparian habitat mitigation plan, and ensures that floodplain function and riparian resources are preserved.

APPROVED BY:



Suzanne Shields, P.E.
Director and Chief Engineer

5/19/21

Date

Original Policy Approved: 5/18/21
Date(s) Revised: N/A