

Definition

Buffer – Upland &/or riparian area that protects aquatic resource functions at mitigation sites from disturbances or adjacent land uses

A Footnote

Riparian Area(s)

- •Transitional between terrestrial & aquatic ecosystems
- •Connect aquatic ecosystems w/ adjacent uplands through surface & subsurface hydrology.
- •Adjacent to streams, rivers, lakes, & estuarine-marine shorelines.

Riparian areas & Buffers can enhance/provide functions including:

- Sediment removal/erosion control
- Excess nutrient/metal removal
- Stormwater runoff moderation
- Water temperature moderation
- Habitat diversity
- Reduction of human impact on aquatic resources



Existing Guidance

- 2000 Nationwide Permits
- Corps Regulatory Guidance
 Letter 02-2
 - ("Guidance on compensatory mitigation projects...")



Recommendations

- Design Considerations when & how large
- Crediting Vegetated Buffers (including Riparian Areas)



Recommendations:

Design Considerations

- When necessary to protect aquatic resource functions at mitigation site from disturbance or adjoining land use
- Primary function to protect integrity of mitigation

site

Width requirements

50-100 feet for water quality

95-330+ feet for habitat



Potential Revisions:

Design Considerations

• When necessary to protect <u>quality</u>, <u>sensitivity</u>, <u>or</u> <u>functions</u> of aquatic resource from disturbance or adjoining land use

• Primary function to protect/<u>enhance</u> integrity of <u>aquatic resource</u>

Width requirements

• minimum width necessary to perform targeted function

General Riparian Area/Buffer Width Guidelines *

Recommended Function	<u>Width</u>
Water Quality Protection	16 to 98 ft
Riparian Habitat Buffers	98 to 1640 ft
Stream Stabilization	33 to 66 ft
Flood Attenuation	66 to 500 ft
Detrital Input	10 to 33 ft

^{*} Synopsis of literature values adapted from Fischer & Fischenich 2000

Design Considerations cont.

Width Requirements – Consider:

- Adjacent land use
- Type of aquatic resource
- Size & shape of resource protected/enhanced
- Soil Conditions
- Slope
- Vegetation



Credit for Riparian Areas & Buffers:

- To extent enhances aquatic resource function & function of mitigation site or other aquatic resources in watershed
- If best for aquatic environment on a watershed basis
- If associated aquatic resources:
 - 1) Perform important functions to region
 - 2) <u>Under demonstrable threat of loss</u> <u>or degradation</u>
- May be limited if compromised or questionable value due to width, shape, condition, etc.



