MPA Metropolitan Pima Alliance

Mission: Metropolitan Pima Alliance is dedicated to improving the quality of life and economic viability of metropolitan Pima County. MPA strives to create dialogue among diverse groups to promote sound community planning solutions.

September 1, 2009

Marisa Rice, CFM, Senior Hydrologist
RFCD, Water Resources Division
97 E. Congress, 2nd Floor
Tucson, AZ 85701

Re: Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines.

Dear Ms. Rice:

Metropolitan Pima Alliance (MPA) acts as a voice for responsible and reasonable development. We have over 130 members representing both the residential and commercial industries including environmentalists, developers and builders. MPA's goals directly relate to improving our region's quality of life and economic vitality. MPA reviewed the Draft Pima County Regional Flood Control District Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines and we appreciate the opportunity to provide comments.

We believe the mitigation concepts proposed in the attached position paper should be incorporated into County's mitigation guidelines. Additionally, in light of that fact that the County is currently revising Title 16, Floodplain and Erosion Hazard Mitigation *Ordinance*, we encourage the modification of Chapter 16.30 (Watercourse and Riparian Habitat Protection and Mitigation Requirements) of this ordinance to reflect the same concepts.

Should you have any questions, comments or concerns, please feel free to contact me at 52.0360.4806.

Sincerely,

Amber Smith
Governmental Relations Director

PIMA COUNTY RIPARIAN MITIGATION CONCEPT

A. Purpose and Mitigation Philosophy

The purpose of this document is to propose a mitigation strategy that will promote the preservation of the high quality riparian habitat, encourage the integration of riparian open space within the fabric of our urban and suburban environment, and allow for the use and enjoyment of private property. As outlined in the implementing ordinance and various resource studies used to develop the riparian protection ordinances in Pima County, regulated riparian habitats have a broad range of function and value. This mitigation proposal is based on the premise that higher value habitats should be more difficult to obtain permission to disturb and the mitigation required to offset the losses from unavoidable impacts to these habitats should be commensurate with their resource value.

B. Field Mapping and Impact Assessment

1. Field Verification and Mapping.

The regional mapping of riparian habitat provides a starting point for the delineation of riparian areas covered by the ordinance and requiring mitigation. An applicant has the option of accepting those maps as prepared or completing site specific field verification and mapping to better understand the nature of riparian habitat on the property. Site specific field assessment and verification of the published riparian maps based upon current aerial photographs, rectified to the

proposed project's engineering and planning base maps, is the preferred means to establish baseline information for impact assessment and mitigation planning. The following criteria apply to the field verification of protected riparian areas within a property or project area.

Mapped Important Riparian Areas (IRA): There will be no boundary change or classification change for mapped IRA. These areas have been delineated by the County based upon a variety of resource values in addition to the presence of riparian vegetation. They are intended to provide for the establishment of an integrated natural open space system within the county. Site specific mitigation planning will be based upon the delineation and analysis of riparian and upland habitats within the designated IRAs.

Hydroriparian and Mesoriparian habitats are the rarest and highest value riparian areas in Pima County. Therefore, these areas should be afforded the highest level of protection. Site specific riparian habitat analysis will include verification that the mapped hydroriparian and mesoriparian habitats within a property or project area are in fact dependent on a relatively shallow ground water table and or perennial or relatively permanent surface water flows and are appropriately designated. Habitats that are determined not to be hydroriparian or mesoriparian in nature will be re-designated as xeroriparian with the appropriate sub category designation determined by field measurement.

Xeroriparian A through D Habitats. The classification and boundaries of homogenous habitat units identified as xeroriparian A, B, C, or D will be field verified and mapped on current aerial photographs, rectified to the proposed project's engineering and planning base maps.

Quantitative Field Methods for Classification and Mapping. The *Riparian Habitat Definition and Classification System Technical Report* (SWCA 1993) provided the basis for the development of the County's mapping and classification system and the xeroriparian classifications (A-D) provided in that document remain part of the County mitigation standard. Quantitative field measurements and mapping should follow the general recommendations of that report. Field measurement should first delineate relatively homogenous units of vegetation. The xeroriparian vegetation units should then be measured to determine their total vegetation volume. The number of sample points measured within each homogenous riparian vegetation unit should be sufficient to document the range of vegetation condition within the unit and to provide a reasonable estimate of the average total vegetation volume for that unit. The calculated average volume will determine the appropriate xeroriparian classification.

Mapping should be based upon 1"=100' aerial photographs and the basis and rational for the delineation of the riparian from upland habitat clearly articulated. When the transition of riparian and upland areas is gradual, the line shall be drawn at the point where the habitat is clearly upland based upon factors such as species composition, vegetation density, and topography.

2. Impact Analysis and Mitigation Triggers.

At the applicant's discretion the published maps or site specific, field verified maps approved by the

flood control district shall be used to determine impacts to regulated riparian habitat. The levels of disturbance that trigger mitigation requirements for the various regulated habitat types are based upon the following preservation and conservation objectives. The following conservation objectives presume that mitigation impacts will not block or eliminate connectivity of riparian areas to upstream and downstream habitat.

- Important Riparian Area – 95 Percent Conservation
- Hydroriparian and Mesoriparian Habitat (inside and outside of an IRA) -- 100 Percent Conservation
- Xeroriparian Class A and B Habitats – 95 Percent Conservation
- Xeroriparian Class C Habitat – 75 Percent Conservation
- Xeroriparian Class D Habitat – 70 Percent Conservation

If the impacts to riparian habitat exceed these conservation objectives within any given property or project area then mitigation shall be required to achieve the conservation objective.

C. Onsite Mitigation Standards

1. Mitigation Ratio Requirements.

- Important Riparian Area – Based upon the actual riparian and upland habitat value within the mapped IRA as defined for the specific riparian categories outlined below.
- Hydroriparian and Mesoriparian Habitat will be mitigated at a 3:1 ratio on an area basis
- Xeroriparian Class A and B Habitats will be mitigation at a 1.5:1 ratio on an area basis
- Xeroriparian Class C and D Habitat will be mitigation at a 1:1 on an area basis

2. Planting Density and Design.

The mitigation planting density shall be based upon the number of mature native trees and woody shrubs required to equal or exceed the measured vegetation volume (if field verified) or the maximum vegetation volume of the impacted xeroriparian class (if the field verification method is not chosen). The tree and shrub species used for mitigation plantings shall be those species indigenous to the xeroriparian habitats found within the project area, property, or mitigation site. The relative proportions of trees and shrubs shall be similar (no more than 20 percent variation) to the impacted area. Riparian mitigation plantings shall be 5 or 15 gallon containerized plants. These plantings can also count as part of the project's NPPO mitigation obligation.

3. Mitigation Site.

Onsite mitigation shall be located to the extent practicable in manner that enhances the overall function of natural open space within a property or project area and contributes to the overall value of riparian habitat protected within the property. The site should be selected based upon its potential to support the required planting density without long term supplemental irrigation. To the extent compatible with other public health, safety and welfare considerations mitigation will be integrated into flood control infrastructure and will utilize water harvesting to the maximum extent possible. The mitigation areas will be considered part of the project's natural undisturbed open space.

4. Success.

The project shall be considered successful when 80% of the plantings are living and actively growing (without significant die back or loss) after one year without supplemental irrigation.

5. Monitoring.

Monitoring shall occur for a five year period or until the success criteria have been demonstrated, which ever is greater. During the monitoring period, the responsible party shall be required to provide annual reports to the Flood Control District documenting progress towards success. If the site is not progressing as anticipated proposed corrective actions will be provided in the monitoring report.

6. Conceptual Mitigation Plan.

A conceptual mitigation plan at 1"=100' shall be submitted and approved as part of the tentative plat approval. The plan shall identify the areas where mitigation will take place, the density of the proposed plantings, the total acreage of mitigation required, ownership of the mitigation land, the source of temporary irrigation water, the responsible party for implementation and monitoring, and the entity or individual responsible for long term ownership and management of the mitigation lands. Responsible entities for long term management may include public entities, Homeowners Associations responsible for the management of common areas for the subdivision or commercial development requiring authorization, conservation organizations or other entity acceptable to the Flood Control District. The conceptual plan shall identify the responsible funding authority for implementation and monitoring.

7. Final Mitigation Plans.

A final mitigation plan shall be submitted and approved with final grading plans for the project.

These plans shall be landscape plans prepared at an appropriate scale and suitable for construction purposes. For large multi-phased projects, where the proposed mitigation site is not part of the current phases of development and where suitable infrastructure is not yet available to the mitigation site to ensure its success, the project proponent shall provide appropriate assurances acceptable to the flood control district that mitigation will be implemented in accordance with the approved conceptual plan.

D. Offsite Habitat Restoration and Enhancement Mitigation

In certain circumstances the Applicant may own or have right to properties other than the project site that would be proposed for mitigation purposes. The use of offsite mitigation opportunities should be encouraged when offsite restoration activities will contribute to the overall objectives of the Floodplain Ordinance. Success Criteria, Conceptual and Final Mitigation Plan, and Monitoring Criteria applicable to the onsite restoration objectives apply apply to offsite habitat restoration and enhancement mitigation efforts.

E. Non-Traditional Onsite or Offsite Riparian Restoration and Enhancement

Habitat restoration can be accomplished by means other than by planting containerized plants and construction of irrigation systems to facilitate their establishment. For certain hydroriparian and mesoriparian habitats cattle exclusion and or regulation of grazing intensity or season, exotic species control, land application of effluent and other procedures have been demonstrated to have substantial riparian habitat benefits. Within xeroriparian habitats the removal of buffle grass, certain channel stabilization efforts, or water harvesting can be extremely beneficial. Applicants are encouraged to consider non-traditional enhancement or restoration programs. The Flood Control District shall have the responsibility to review and approve such measures provided it is adequately demonstrated how the measures are expected to benefit riparian habitat and that the monitoring program will provide ample opportunity to demonstrate that the goals of the restoration effort would be achieved.

The conceptual and final plan approval process will be as described previously. The conceptual plan will clearly identify appropriate success criteria, specific monitoring requirements and a monitoring and reporting schedule.

F. In-Lieu Fee and Mitigation Banking Opportunity.

There are a variety of offsite mitigation options that will result in the establishment or protection of riparian vegetation that would equal or exceed the goals established for onsite mitigation. For example, the Corps of Engineers has been successfully implementing in-lieu fee mitigation programs for several years. Similarly, in other parts of the country mitigation banks have been successfully used to compensate for wetland and riparian resource impacts.

In lieu fee options may be funded by a one time payment of the in-lieu fee, a voluntary rooftop environmental fee to be paid at the time the building permit is issued, payment of an environmental enhancement fee at resale, or some combination thereof acceptable to the recipient and the County Flood Control District.

Pima County and local municipalities have implemented a flood prone land acquisition program. We encourage conservation organizations and other interested parties to explore and develop riparian restoration programs where appropriate on these lands. These programs can be used to provide in-lieu fee mitigation opportunities for applicants who otherwise do not have suitable onsite opportunities.

In certain circumstances these opportunities will be preferable biologically to any onsite mitigation opportunity. Applicants are encouraged to identify these opportunities. When in lieu fee mitigation is proposed the applicant must demonstrate (1) why it is equal or preferable to onsite mitigation opportunities and (2) how it will achieve the objectives of the mitigation and conservation goals of the Floodplain Ordinance.

G. Purchase of Development Right and/or Land Acquisition

In certain circumstances the setting aside lands for conservation purposes by purchase of a development right, establishment of conservation easement, or outright donation of land will provide significant contribution to county riparian conservation objectives. These actions may occur within the watershed in which permitted impacts will occur or outside of that watershed. Depending on the nature of the land acquisition and the permitted impacts this form of mitigation can have substantial conservation benefit that more than offsets impacts of a proposed project. The benefits that should be considered include larger watershed protection measures in addition to the actual nature of riparian habitat that would be set aside. The Flood Control District should consider these proposals on a case by case basis and where demonstrated to be beneficial they will provide an acceptable alternative mitigation option.