



MEMORANDUM

Date: August 18, 2015

To: The Honorable Chair and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

A handwritten signature in black ink, appearing to be "CHH", is written over the printed name "C.H. Huckelberry".

Re: **Risk Assessment: Sustainability of the Cienega Creek Natural Preserve**

I have asked staff to develop a risk assessment associated with sustainability of the natural resources within the Cienega Basin. This work is continuing and an update of the active number of reports and topics of assessment are included in the attached August 13, 2015 memorandum. I expect that new reports will be produced in the next few months.

This information will also be provided to our federal agency partners, including the US Forest Service, Bureau of Land Management and US Army Corps of Engineers, for their review.

CHH/anc

Attachment

c: John Bernal, Deputy County Administrator for Public Works
Suzanne Shields, Director, Regional Flood Control District
Chris Cawein, Director, Natural Resources, Parks and Recreation
Linda Mayro, Director, Office of Sustainability and Conservation

DATE: August 13, 2015

TO: C. H. Huckelberry
County Administrator

FROM: Suzanne Shields, P.E., Director
Regional Flood Control District

Chris Cawein, Director
Natural Resources, Parks and Recreation

Linda Mayo, Director
Office of Sustainability and Conservation

SUBJECT: **Risk Assessment of the Sustainability of the Cienega Creek Natural Preserve and Potential Pima County Conservation Strategy Actions in the Cienega Basin**

You requested staff to provide a risk assessment and a Pima County action strategy "to minimize or eliminate the risks or threats to the sustainability of natural resources...or at least dimension the actions and cost necessary to do so and evaluate options that may be viable to sustain these important natural ecosystems and cultural resources." To that end, the Regional Flood Control District (District), Office of Sustainability and Conservation (OSC), and Natural Resources, Parks and Recreation (NRPR) have been working on reports to assess the physical existing conditions and potential future conditions within the watershed. Attached is a map of the watershed.

While working on the various reports, we are also developing standards and templates so that the format and maps are consistent including developing readable reports that tell the story. Some topics are quite complex so in some cases we have chosen to create summary reports to inform and educate readers on the terms and issues. Our vision for these reports and topics for each assessment include the following:

- Introduction to the Cienega Creek Watershed. A brief paper describing the geographical and natural features of the watershed, the needs of the watershed, specific ecological functions, and an overview for each threat assessment which will be presented through a series of reports.
- Drought and Climate Report. This report will provide a context for understanding the current drought conditions, long-term climate, and impacts to surface water and groundwater conditions.
- Groundwater Assessment. An assessment to put groundwater trends at the Cienega Creek Natural Preserve and Las Cienegas in a regional context and identify stressors and data gaps.
- Surface Water Conditions. A trend comparison in surface water persistence in the upper and lower Cienega Basin, runoff trends at gages, and potential stressors and opportunities.
- Cienega Channel Change. A review of changes in channel dimensions and thalweg elevations overtime to document headcutting along Cienega Creek.
- Cienega Valley Springs Assessment. A summary of distribution, conditions, and threats for springs.
- Potential Impacts to Surface Flows and Groundwater. A review of all risks to flows and groundwater including estimates of potential changes to surface flows and groundwater conditions from land use, especially mining.

C. H. Huckelberry, County Administrator

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- **Vegetation Land Cover Assessment.** An evaluation of the current conditions to understand what evidence there may be for recent changes in vegetation structure or cover that might affect runoff or wildlife habitat.
- **Wildlife Assessment.** An evaluation of habitat loss, fragmentation, groundwater decline and manmade threats including mining and Interstate-10 on vertebrate populations and habitat conditions.
- **Cultural Resource Assessment.** A summary of the cultural resources in the watershed.
- **Visual Resource Risk Assessment.** This report will identify visual resources of the area and what may be at risk. The beautiful vistas, clear air, and dark skies in the Cienega Watershed are valuable from cultural, economic and biological perspectives.
- **Land Use Assessment.** This report will bring together population, zoning, building permits data, the Multi-Species Conservation Plan's development projections, mining claims and other data, which will be used to understand how and where land use has changed and may change in the future.
- **Summary of Mining Claims and Mining Districts.** A primer on federal and state public lands, mining claims and mining districts in the watershed along with information on Rosemont's lands and mining claims.
- **Rosemont Mine Risk Assessment.** A compilation, in layman's terms, of the technical concerns and impacts to the watershed that Pima County has identified in reviewing the Mining Plan, Environmental Impact Statement, and other related technical documents.
- **Final Risk Assessment and Summary Report.** A synthesis of all of the assessment reports presenting a strategy plan to minimize or eliminate threats and to dimension scope and, where possible, the costs of the recommendations.

Each assessment will identify data gaps and data needs, including threats present in the watershed. These reports are in progress, and each report will be provided to you as they are completed. A cover memorandum identifying conclusions and recommendations will be drafted for your use in presenting the reports to the Board of Supervisors. While the physical condition assessments are being completed and drawn together in a comprehensive report, OSC will select several priority resources to develop a more detailed conservation strategy as you requested. These may include two or more Sonoran Desert Conservation Plan special elements or species, as well as specific water resources locations. Deliverables under this item would include:

1. A memorandum showing the location of conservation targets in the Cienega Basin selected for development of specific strategies for Pima County action and describing why these targets were chosen.
2. An internal draft progress report or memorandum describing the condition and viability of conservation targets in tables and text along with any additional information needs.
3. A draft situation analysis report for internal use that includes prioritized threats, opportunities, and associated stakeholders behind all critical threats and degraded attributes. This analysis will include a diagram of assumed or conceptual relationships between indirect threats and opportunities, critical threats, and the conservation targets.

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4. A memorandum for District, NRPR and OSC directors review identifying proposed objectives for reducing critical threats or rectifying degraded attributes of the conservation targets. Each conservation objective will be associated with one or more strategic actions that could be implemented by Pima County or District.
5. A draft conservation strategy presented by staff and a report to District, NRPR and OSC directors with proposed costs, timeframes and responsible individuals identified for each action. An appendix would include summary information from previous steps.
6. A draft conservation strategy memorandum with proposed costs, timeframes and responsibilities for each action.
7. A final draft memorandum to the Board of Supervisors with your recommendations.

District staff is also continuing to update the watershed related issues including monitoring surface water and groundwater conditions and water quality. The District and NRPR are reviewing lands and ranch management plans within the Cienega Watershed.

Please let us know if you have any questions or directions on our planned work effort and products.

SS/tj

Attachment

c: John Bernal, Deputy County Administrator – Public Works
Kerry Baldwin, Parks Superintendent – Natural Resources, Parks and Recreation
Julia Fonseca, Environmental Planning Manager – Office of Sustainability and Conservation
Brian Powell, Program Coordinator – Office of Sustainability and Conservation
Courtney Rose, Program Coordinator – Office of Sustainability and Conservation
Bill Zimmerman, Deputy Director – Regional Flood Control District
Eric Shepp, Deputy Director – Regional Flood Control District
Tom Helfrich, Water Resources Division Manager – Regional Flood Control District

