

*agricultural and industrial  
partnership for the reservation of  
arkansas roundwater*

arkansas County Farmers

*and*

international aper

*for*

reservation of arkansas roundwater



August 9, 1999

# **Project Proposal**

**Executive Summary**

**Project Phase Descriptions**

## **Executive Summary**

- Upon approval International Paper Pine Bluff Mill (IP) joins a water district, to be formed, that will also include all or part of Arkansas County.
- The purpose of the new water district will be to conserve ground water and to implement business strategies, pertaining to the use of water, that will increase the competitive abilities to International Paper and Arkansas County farmers, in addition to, insuring the long term availability of Sparta Aquifer water to the citizens of Arkansas.

The proposed new water district will implement its plan for PRESERVATION OF ARKANSAS GROUNDWATER, (PAG), in three phases.

The implementation plan is anticipated to be completed within ten years from the date of the proposed water district being legally formed.

The successful implementation of the plan for PRESERVATION OF ARKANSAS GROUNDWATER being proposed by IP and Arkansas County farmers is contingent upon two significant events occurring prior to actual implementation.

1. The proposed White River Irrigation District MUST agree to Removing Arkansas County, now and forever more from its proposed current Irrigation District Plan.
2. Public funding amounting to fifty million dollars shall be secured and designated to be spent as set forth in the plan presented by the proposed but yet to be formed water district.

The public funding for the PLAN FOR PRESERVATION OF ARKANSAS GROUNDWATER should come from a portion of the money that has been appropriated for the proposed White River Irrigation District Plan earmarked for use in Arkansas County.

Upon removal of Arkansas County from the proposed White River Irrigation Districts' Plan, a cost savings amounting to approximately equal to that which would be required to fully implement the "PAG" would be realized by the proposed White River Irrigation District. Thereby, completely justifying a redirection of a portion of the proposed White River Irrigation District's federally appropriated funding.

If, for reasons presented by Congress, it is determined to be unfeasible that funding for the "PAG" cannot come from the proposed White River Irrigation District's authorized appropriation, those proposing the PLAN FOR PRESERVATION OF ARKANSAS GROUNDWATER will seek funding through other currently authorized spending bills.

NOTE: The funding formula for the implementation of PAG will be on a dollar for dollar cost share basis. Example: One dollar public funds matched by one dollar of private funds.

## **Organization Structure**

In order to pursue a segregation of the Arkansas County agricultural irrigation water users interests in association with the Jefferson County industrial users it will be necessary to use one or more entities authorized under Arkansas statutory law to either create a new governmental entity or a furtherance of an existing entity.

Parts of Arkansas County and Jefferson County are within the bounds of districts already established under the Regional Water Distribution Act, A.C.A. S 14-116-10, et seq. Both counties also are within Soil and Water Conservation Districts established under the Conservation districts Law, A.C.A. S 14-125-10, et seq. Both of these statutory laws provide for an entity to accomplish the objectives of the proposed project and the fact that these districts already exist do not preclude creation of a new district for the project being considered.

As a result, in order to establish an entity through which the Arkansas County agricultural irrigation users can join with the Jefferson County industrial users to pursue their objective it would be necessary to:

First, remove the area from existing water Districts.

Second, establish a new District under either of the above laws for the project area

While the requirements for creation for each are a little different, generally, a minimum number of landowners will be required to petition either the Circuit Court or Arkansas Soil and Water Conservation Commission ("ASWCC") for creation. Even if the petition is filed with the court, ASWCC must approve of the creation of any such entity.

In Conclusion, the proposed compromise and cooperative arrangement will require:

1. Approval by ASWCC and existing Districts within which the project lies.
2. Approval by minimum number of landowners as well as ASWCC for creation of the new district.
3. Approval by the appropriate court of 1 and 2 which is usually only clerical provided all other agree with notice requirements depending upon the type of entity created.

## **PHASE I: PLAN FOR COMPETITIVE WATER CONSERVATION**

- Upon project approval, International Paper agrees to implement a water conservation plan that will reduce IP's annual Sparta aquifer water withdraw by up to 90%.
- International Paper will, upon formation of the newly proposed water district, endeavor to complete the implementation of its conservation plan within two years.
- International Paper will receive, from the newly proposed district, funding based on a dollar for dollar cost share basis as set forth in the implementation plan presented by International Paper subject to the approval of the proposed and yet to be formed water district board.
- International Paper will share, on a percentage basis, 65% of funding derived from the public on an annual basis until such time that IP's portion of PAG has been fully implemented and IP has received funding from the proposed water district amounting to a dollar for dollar cost share.
- Landowners within the geographic boundaries of the proposed but yet to be formed water district that may or may not include all of Arkansas County will voluntarily participate in PAG.
- Said landowners will develop surface water storage impoundments equal to twenty acre feet of water or greater with tail water recovery capabilities or, implement a plan approved by the yet to be formed Water District, in return for which they will receive funding from the proposed but yet to be formed water district on a dollar for dollar cost share basis.
- All plans for the construction of PAG must be approved by the appropriate State and or Federal agencies that may or may not issue permits for projects involving water conservation prior to receiving approval from the proposed but yet to be formed water district seeking to implement PAG.

Landowners within the proposed but yet to be implemented water district seeking to implement PAG will receive cost share funding on a first come first serve basis.

- The overall conservation goal of phase one of THE PLAN FOR PRESERVATION OF ARKANSAS GROUNDWATER is to reduce the annual withdraw of underground water within the geographic boundaries of the proposed but yet to be formed water district by thirty-five percent.

## **PHASE II: SUPPLEMENT SURFACE WATER FEASIBILITY STUDY**

feasibility study will be required to best determine the most economic and environmentally friendly approach with which to take advantage of existing surface water supplies. It is the intent of the plan for the Preservation of Arkansas Groundwater, (PAG), to supplement existing surface water to areas of Arkansas county, as deemed feasible, by this study for use in production of rice and other crops requiring irrigation. The time estimated for the phase two study: One year.

NOTE: Refer to overview Process Phase III

## **PHASE III: EXCESS SURFACE WATER DEVELOPMENT**

### **A. PURPOSE**

Water conservation measures are generally considered to be more economically advantageous than the transportation of excess surface water due to the costs associated with transportation and due to the lack of reliable sources of excess surface water during times of use. However, there are some areas within the project which are close enough in proximity to sufficient sources of excess surface water to justify the construction and implementation of a transportation system to use excess surface water as a alternative to or supplement for water conservation measures.

### **B. OVERVIEW OF PROCESS**

1. Identify all potential sources of excess surface water within or adjacent to project area within existing regulatory scheme. This should include both Arkansas and White River as well as their tributaries.
2. Develop cost estimate per acre foot transportation of excess surface water per .25 mile of transportation.
3. Comparison of costs of water conservation measure to costs of excess surface water transportation to identify areas within project that can use excess surface water at lower price than water conservation measures to develop target area for excess surface water on cost basis.
4. Comparison of available supply to usage by target area of project for refinement of target area due to supply limitations.
5. Further refine target area after reduction for supply limitations by combining use of excess surface water calculations with water conservation measures based upon cost-to-benefit analysis.
6. Finalize definition of target area within project by overlaying current regulatory scheme and topographical limitations where applicable.
7. Pursue necessary permits and land owner approval to permit transportation of excess surface water within target area.
8. Construction of excess surface water transportation system on a cost share basis in agreement with landowners within target area.

### **C. EXPECTATIONS**

Based upon preliminary calculations within the project it is expected that at least 25% of rice acres would be potentially benefited by use of excess surface water. This would be expected to decrease water use 35,938 acre feet annually.

# **Estimated Groundwater Conservation Projections**

**Impact on All Groundwater**

**Impact on Sparta Aquifer**

# PLANNED WATER DISTRICT REGION

## Groundwater Conservation Projections

### Total Projected Groundwater Impact

<b>USER GROUP</b>	<b>PRESENT Ground Water Usage Numbers in Billion Gallons</b>	<b>PLAN MATURITY Ground Water Usage Numbers in Billion Gallons</b>
International Paper Pine Bluff Consumption	12.92	1.29
Rice Farming Ground Water Needs	48.54	36.65
Other Crop Ground Water Needs	36.7	27.7
Net Impact on Groundwater Usage in the Plan District	0	-32.52
<b>Total Annual Groundwater Usage</b>	<b>98.16</b>	<b>65.64</b>

**33% Reduction of Proposed District  
Groundwater Dependency  
from Partnership Projects!**

**Assumptions:**

- Numbers represent 50% of irrigation needs for designated crops from groundwater
- 70% of farmers in the district participate in the PLAN

**Note:** Funding under the PLAN is not restricted to rice farming. Projects are subject to approval of the District Board.

# PLANNED WATER DISTRICT REGION

## Groundwater Conservation Projections

### SPARTA AQUIFER IMPACT

<b>USER GROUP</b>	<b>PRESENT Ground Water Usage Numbers in Billion Gallons</b>	<b>PLAN MATURITY Ground Water Usage Numbers in Billion Gallons</b>
International Paper Pine Bluff Consumption	12.92	1.29
Rice Farming Ground Water Needs	24.27	18.32
Other Crop Ground Water Needs	18.35	13.85
Net Impact on Groundwater Usage in the Plan District	0	-22.08
<b>Total Annual Groundwater Usage</b>	<b>55.54</b>	<b>33.46</b>

## 40% Reduction of SPARTA AQUIFER Groundwater Dependency from Partnership Projects!

### Assumptions:

- Numbers represent 50% of irrigation needs for designated crops from groundwater
- 50% of all groundwater is Alluvial, 50% Sparta
- 70% of farmers in the district participate in the PLAN

Note: Funding under the PLAN is not restricted to rice farming. Projects are subject to approval of the District Board.