

**ARKANSAS STATE UNIVERSITY  
STATE UNIVERSITY, AR 72467-0910**

**AFFILIATION AGREEMENT**

This agreement is entered into this 26 day of MAY, 2009, between Arkansas State University-Jonesboro, hereinafter referred to as "ASUJ" and the City of Jonesboro, hereinafter referred to as "City."

**I. PURPOSE OF THE AGREEMENT**

It is understood that the participating institutions will cooperate in the conduct of a vegetation management project of urban in-stream environments that are impaired with excess sediments, nutrients, bacteria, and trace metals. All of these pollutants have a negative impact on aquatic systems; however, using science-based approaches, non-point source pollutant levels can be reduced and flow velocity profiles changed so that sedimentation occurs, reducing total suspended solid loads and improving water quality. Often drainage canals in urban environments are not aesthetically pleasing and adopt connotations of dumping grounds and foul waste water sites. By carefully implementing vegetative management plans, not only will in-stream environmental benefits be increased, but the aesthetic quality and function of these systems enhanced. As well, assessment of conditions in typical canals of the City can be used to design, demonstrate, and validate reduction in long-term maintenance of problematic vegetation or use of optimal herbicides and their interaction with water quality concerns.

**II. OBLIGATIONS OF ASUJ**

**A. ACTIVITIES**

1. Identification and classification of vegetation types and species within drainage canals that will be selected from a reconnaissance survey to represent three prevalent size scales requiring maintenance in the City of Jonesboro. This includes:
  - a. Identification of areas of invasive, unwanted canal vegetation.
  - b. Identification of areas of greatest potential for vegetation introduction based on physical parameters (hydrology, geomorphology, and site conditions).
2. Identification of a suite, and generation of a list of facultative wetland vegetation that fits a set of rigorous ecological criteria that can be introduced in the drainage canals; i.e.:
  - a. Native and non-invasive native
  - b. Vegetative propagation
  - c. Illustrated environmental benefits

- d. Region specific
  - e. Robust to withstand management
3. Generation of an aggressive management plan that evaluates the use of individual and integrated management strategies to remove unwanted species and improve in-stream habitats. Management strategies could include:
    - a. Herbicides (individual and combination)
    - b. Growth inhibitors
    - c. Mechanical removal
    - d. Native species establishment (planting)
  4. Establishes long-term monitoring plots, upon which success criteria of establishment (species, density, environmental function) can be based.
  5. Incorporates *in situ* water quality testing for select parameters as would be used with United States Geological Survey (USGS) gauging stations to identify temporal changes in water quality to correlate with potentially increasing in-stream environmental functions with vegetation management plans.

## **B. PROJECT METHODS**

### Objective 1:

- a. Nine representative drainage canals among three levels or size scales will be surveyed for plant species identification
- b. Line/point surveys will provide species diversity measure of the drainage canals
- c. Surveys will provide presence / absence data for vegetative species
- d. Initial survey of selected drainage canals in Jonesboro:
  - i. Survey will initially cover at least nine selected representative canals until the range of typical canals requiring maintenance can be adjusted to the scale of classification required to characterize conditions suitable for use with a management plan
  - ii. Line point surveys will run 100 m, with point surveys every 1 m until otherwise adjusted to the above mentioned suitability scale for the management plan, with a minimum not below scientific and statistical rigor as agreed upon by the principal investigators for the project and in consultation with the City Engineer or other municipal representative.

### Objective 2:

- a. Literature surveys will generate a list of obligate - facultative wetland vegetative species that can be introduced to Jonesboro drainage canals. This list will be based on strict ecological criteria of:
  - i. Native to the U.S
  - ii. Native to the Lower Mississippi Alluvial Valley
  - iii. Native to EPA Region VI
  - iv. Documented environmental benefits of nutrient, pesticide or heavy metal assimilation
  - v. Propagates vegetatively

- vi. Robust enough to withstands mechanical management actions (i.e., mowing)

**Objective 3:**

- a. Management plans will be based on quadrat x treatment x vegetation
- b. Vegetation: un-wanted, invasive vegetation vs. wanted, native wetland vegetation
- c. 3 treatments:
  - i. Herbicides
  - ii. Mechanical control
  - iii. Native species establishment

**C. PRODUCTS**

1. An intensive survey of the diversity of in-stream canal vegetation within three canal scales prevalent to the City of Jonesboro
2. A well-defined list of potential plants for introduction to the drainage canals
3. An experimental design and establishment of management quadrats assessing the effects of management actions on plant communities
4. A scientifically-rigorous conclusion of the "vegetative status or condition" of drainage canals and the projected direction of change to that "status"

**D. TIMELINE**

Objective 1: June/July 2009 - September 2009

Objective 2: May - September 2009

Objective 3: June 2009 for initial site preparation and identification

June/September 2009 for site establishment

September 2009 for management implementation

September 2009 - August 2010 for monitoring

**III. OBLIGATIONS OF CITY**

1. Fund the total cost of the project at a rate of \$37,000, per the budget attached as Exhibit A, such payments to be made monthly as ASUJ submits documentation of expenses incurred.
2. Provide personnel time, services, facilities, and/or equipment as appropriate to conduct the project.
3. Obtain legal access to all property subject to this Affiliation Agreement
4. Use reasonable care to ensure that the property subject to this Affiliation Agreement is safe and fit for the purposes of ASUJ in conducting the activities called for by this Affiliation Agreement

#### **IV. THE COLLEGE AND THE CITY JOINTLY AGREE THAT:**

1. There will be no discrimination against a student or faculty member because of race, color, gender, religion, age, national origin, handicap, or veteran status in any aspect of this program.
2. In the event an accident or incident occurs during the student's participation in educational activities, ASUJ faculty, a representative from the City, and the student involved will prepare a written incident or accident report to be exchanged among all parties.
3. There will be ongoing, open communication between ASUJ and the City to ensure understanding of the expectations and roles of both institutions in providing education for students.
4. The University reserves the right to subcontract some of the services to the Mississippi State University Department of Wildlife and Fisheries.
5. This Affiliation Agreement in no way creates an employment relationship between the parties. Both ASUJ and City are independent contractors and neither has authority to act for or to bind the other.

#### **V. IMMUNITY**

Arkansas State University is an agency of the State of Arkansas. Both the Eleventh Amendment to the United States Constitution and Constitution of the State of Arkansas grant sovereign immunity to the State and its agencies. Because of the Constitutional grant of sovereign immunity, Arkansas State University has no authority to enter into a covenant or agreement to hold a party harmless or to indemnify a party from damages. Any claim for damages against Arkansas State University must be presented to the Arkansas State Claims Commission. Nothing in this contract is intended to nor shall it waive the sovereign immunity of Arkansas State University. Any provision of this contract which is in conflict with the laws of the State of Arkansas is null and void.

#### **VI. ENTIRE AGREEMENT**

This Agreement constitutes the entire Agreement between the parties and supersedes any contemporaneous or previous written or oral agreements, representations or undertakings concerning the matters and arrangements provided for in this Agreement. No supplement, modification or amendment to this Agreement will be binding unless such supplement, modification or amendment is in writing and signed by all parties.

## **VII. WAIVER**

A waiver of any provisions of this Agreement will not be considered a waiver of any other provision, whether or not similar, nor will any waiver on one occasion constitute a continuing or permanent waiver.

## **VIII. NOTICE**

Any request, notice or other communication to be given under this Agreement must be in writing and delivered personally or by messenger, private mail, courier service, facsimile or sent by registered, certified mail, return receipt requested, or postage prepaid, as follows:

To: ASUJ  
PO Box 2760  
State University, Arkansas 72467

To: City  
PO Box 1845  
Jonesboro, AR 72403

All notices will be considered effective (i) upon receipt if delivered personally or by messenger or private mail courier, (ii) on the business day of successful transmission by facsimile or (iii) otherwise on the third business day after deposit in the U.S. mail.

## **IX. HEADINGS**

Captions of the articles and sections of this Agreement are for convenience only and must not be interpreted or construed to explain, modify, amplify or aid in the interpretation, construction or meaning of any provision of this Agreement.

## **X. SUCCESSORS**

The terms, warranties and agreements herein contained shall bind and inure to the benefit of the respective parties hereto, and their respective legal representatives, successors and assigns.

## **XI. ADDITIONAL DOCUMENTS**

The parties shall execute any additional documents reasonably necessary to effectuate the provisions and purposes of this Agreement.

## **XII. SEVERABILITY**

Any provisions herein declared invalid under any law shall not invalidate any other provision of this Agreement.

### **XIII. APPLICABLE LAW**

This Agreement and the documents provided for herein shall be governed by, and construed in accordance with, the laws of the State of Arkansas.

**XIV.** This agreement will be reviewed by each party annually or when requested by either party and shall be in effect until September 1, 2010. The Affiliation Agreement may be cancelled by giving thirty (30) days written notice following failure of any party to meet the obligations set out in the agreement. If the Affiliation Agreement is cancelled, City shall pay all outstanding invoices for work performed up to and including the date of termination.

**XV.** It is understood that this Affiliation Agreement shall be interdependent. ASUJ and the City will derive the greatest benefits by promoting the interests of both parties, thereby rendering the best service to the public.

**EXHIBIT A**

<b>Expense</b>	<b>Amount</b>	<b>Purpose</b>
Personnel	\$33,000	PI s compensation based on 11% AYT + Graduate Student support @ \$15,000 + Undergraduate Students @ \$4,000
Travel	\$2,500	PI and student travel, to and from Jonesboro from Mississippi (~550 miles RT) and vicinity surveys @ \$.45 per mile
Accommodations	\$1,000	Visits at \$100/night
Supplies	\$500	Miscellaneous items including tape measures, field and office supplies
<b>Total</b>	<b>\$37,000</b>	