

**Special Called Meeting  
December 15, 2015 - 7:15 PM  
Council Chambers**

**Call to Order**

- 1** The Honorable Torrey Rush

**Approval of Minutes**

- 2** Special Called Meeting: December 8, 2015 [PAGES 5-21]

**Adoption of Agenda**

- 3**

**Report of the Attorney for Executive Session Items**

- 4** a. TRC Propco Inc. vs. SCDOT et al  
b. Transportation Sales Tax Expenditures

**Third Reading Items**

- 5** 15-35MA  
Cynthia Weatherford  
RS-HD to LI (1.27 Acres)  
2610 Harlem St.  
16204-08-01 [THIRD READING] [PAGES 22-23]

## **Second Reading**

- 6** An Ordinance Amending the Richland County Code of Ordinances; Chapter 17, Motor Vehicles and Traffic; Article II, General Traffic and Parking Regulations; Section 17-10, Parking in Residential and Commercial Zones of the County; so as to prohibit the parking of motor vehicles in the front yard in certain Residential Zoning Districts [PAGES 24-28]

## **Report of Development and Services Committee**

- 7** Resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300 [PAGES 29-58]
- 8** Fund and/or seek a partnership with SCE&G to plant indigenous flowers and plants along transmission line corridors in Richland County [PAGES 59-63]

## **Report of Administration and Finance Committee**

- 9** Changes to Policy on Requiring Employees to Sign Documents [PAGES 64-69]
- 10** Motion to Increase the Daily Inmate per Diem for Applicable Jurisdictions [PAGES 70-102]

## **Report of the Rules and Appointments Committee**

### **Notification of Vacancies**

- 11** Animal Care Advisory Committee - 2

### **Notification of Appointments**

- 12** Airport Commission - 3 [PAGES 103-146]
  - a. Don Purcell
  - b. Stuart Hope

- c. Cecil D. Hannibal
- d. Tally Parham Casey
- e. Timothy Alexander Mousseau
- f. Prentiss McLaurin

**13** Richland Memorial Hospital Board - 2 [PAGES 147-162]

- a. Jennifer Ford-Cooper
- b. James Wheeler
- c. Shirley Mills
- d. Traci Cooper
- e. James Best

**Report of the Hospitality Tax Ad Hoc Committee**

**14** a. Destination Parks Funding Plan [PAGE 163]

1. A Second Supplemental Ordinance providing for the issuance and sale of Richland County, South Carolina, Hospitality Tax Revenue Bonds, taxable series 2016, or such other appropriate series designation, in the principal amount of not exceeding \$20,000,000; delegating authority to the County Administrator to determine certain matters with respect to the bonds; prescribing the form and details of such bonds; and other matters relating thereto [FIRST READING] [PAGES 164-177]

**Citizens' Input**

**15** Must Pertain to Items Not on the Agenda

**Executive Session**

**Motion Period**

**16** a. Due to the Flood crisis and still so many unanswered questions and still so much to do and get done, I move that we hold regular council meetings the month of January 2016 to address the citizens needs [JACKSON]

## **Adjournment**



Special Accommodations and Interpreter Services Citizens may be present during any of the County's meetings. If requested, the agenda and backup materials will be made available in alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), as amended and the federal rules and regulations adopted in implementation thereof. Any person who requires a disability-related modification or accommodation, including auxiliary aids or services, in order to participate in the public meeting may request such modification, accommodation, aid or service by contacting the Clerk of Council's office either in person at 2020 Hampton Street, Columbia, SC, by telephone at (803) 576-2061, or TDD at 803-576-2045 no later than 24 hours prior to the scheduled meeting.

# RICHLAND COUNTY COUNCIL

## SOUTH CAROLINA

### SPECIAL CALLED MEETING MINUTES

December 8, 2015  
6:00 PM  
County Council Chambers

*In accordance with the Freedom of Information Act, a copy of the agenda was sent to radio and TV stations, newspapers, persons requesting notification, and was posted on the bulletin board located in the lobby of the County Administration Building*

#### CALL TO ORDER

Mr. Rush called the meeting to order at approximately 6:00 PM

Mr. Pearce moved, seconded by Mr. Malinowski, to broadcast the Special Called Meeting.  
The vote in favor was unanimous.

#### INVOCATION

The Invocation was led by the Honorable Joyce Dickerson

#### PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was led by the Honorable Joyce Dickerson

#### PRESENTATION

**Outstanding Friend Acknowledgement** – Mr. Rodney Odom and Ms. Jennifer Senn presented Ms. Dixon with the Outstanding Friend Award in honor of her dedication to the Safe Routes to Schools initiative.

#### APPROVAL OF MINUTES

**Regular Session: December 1, 2015** – Mr. Pearce moved, seconded by Ms. Dickerson, to approve the minutes as distributed. The vote in favor was unanimous.

#### ADOPTION OF AGENDA

Mr. Manning moved, seconded by Ms. Dickerson, to adopt the agenda as published. The vote in favor was unanimous.

Mr. Pearce inquired is there was going to be a Special Called meeting on December 15<sup>th</sup>.

Mr. McDonald stated one had not been scheduled, but any time sensitive items that were not taken up at tonight's meeting would not be back before Council until the February 9<sup>th</sup> Council meeting.



#### Committee Members Present

Torrey Rush, Chair  
Greg Pearce, Vice Chair  
Joyce Dickerson  
Julie-Ann Dixon  
Norman Jackson  
Damon Jeter  
Paul Livingston  
Bill Malinowski  
Jim Manning  
Seth Rose  
Kelvin E. Washington, Sr.

#### Others Present:

Tony McDonald  
Daniel Driggers  
Warren Harley  
Beverly Harris  
Kimberly Roberts  
Brandon Madden  
Roxanne Ancheta  
Michelle Onley  
Michael King  
Larry Smith  
Geo Price  
Laura Renwick  
Jeff Ruble  
Quinton Epps  
Kevin Bronson  
Tracy Hegler  
Chad Fosnight  
Dwight Hanna  
John Hixon  
Brad Farrar  
Cheryl Patrick  
Chris Gossett  
Rob Perry  
Monique McDaniels

**REPORT OF THE ATTORNEY FOR EXECUTIVE SESSION**

Mr. Smith stated the following items were potential Executive Session Items:

- a. **Waterpark Contract(2)**
- b. **Sheriff's Department – Potential Purchase of Property**
- c. **Transportation Sales Tax Expenditures**
- d. **Project RS**
- e. **Personnel Matter**

**CITIZENS' INPUT  
(For Items on the Agenda Not Requiring a Public Hearing)**

No one signed up to speak.

**REPORT OF THE COUNTY ADMINISTRATOR**

**Annual Audit Presentation** – Mr. Tom McNeish with Elliott Davis gave a brief overview of the annual audit.

Mr. Pearce inquired as to how much was in the fund balance.

Mr. McNeish stated the fund balance is \$30.3 million, which is an increase of \$2.8 million.

Mr. Pearce moved, seconded by Ms. Dixon, to schedule a work session in February to discuss the annual audit in more detail. The vote in favor was unanimous.

**REPORT OF THE CLERK OF COUNCIL**

**REMINDER: Board, Commission, and Committee Appreciation Drop-In; January 14, 2016 – 4<sup>th</sup> Floor Conference Room** – Ms. McDaniels reminded Council of the upcoming Board, Commission, and Committee Appreciation Drop-in on January 14<sup>th</sup> in the 4<sup>th</sup> Floor Conference Room. The drop-in will be held from 5:30 PM – 7:30 PM.

**Benedict College's 29<sup>th</sup> Annual Black History Teleconference Funding Request** – Ms. McDaniels stated Council received a sponsorship request from Benedict College for their 29<sup>th</sup> Annual Black History Teleconference. The teleconference is February 9<sup>th</sup> and 10<sup>th</sup>.

Mr. Jeter moved, seconded by Mr. Malinowski, to have individual Council members that wish to attend to purchase tickets from their discretionary account. The vote in favor was unanimous.

**REPORT OF THE CHAIRMAN**

**Charters of Freedom – Site Recommendation** – Ms. Ancheta stated the recommendation from Mr. Patterson and County staff was to place the monument at 2020 Hampton Street.

Mr. Manning moved, seconded by Ms. Dickerson, to approve placing the monument at 2020 Hampton Street.

<b><u>FOR</u></b>	<b><u>AGAINST</u></b>
Dixon	
Malinowski	
Rose	
Jackson	
Pearce	
Rush	
Livingston	
Dickerson	
Washington	
Manning	
Jeter	

The vote in favor was unanimous.

**Personnel Matter** – This item was taken up in Executive Session.

**OPEN/CLOSE PUBLIC HEARINGS**

- **Palmetto Health JEDA Bond Issuance** – No one signed up to speak.

**EXECUTIVE SESSION**

*Council went into Executive Session at approximately 6:25 p.m.  
and came out at approximately 7:04 p.m.*

- a. **Personnel Matter** – No action was taken.

**OPEN/CLOSE PUBLIC HEARINGS**

- **Authorizing the expansion of the boundaries of the I-77 Corridor Regional Industrial Park jointly developed with Fairfield County to include certain additional real property located in Richland County; the execution and delivery of a First Amendment of that certain Credit Agreement between Richland County and CD/Park7 Columbia SC High Rise Owner LLC to include such additional property as part of the project site described therein; and other related matters** – No one signed up to speak.
- **Authorizing the execution and delivery of a fee-in-lieu of tax agreement by and between Richland County and Project Oro whereby Richland County will enter into a fee-in-lieu of tax agreement**

with Project Oro and providing for payment by Project Oro of certain fees-in-lieu of ad valorem taxes; providing for the allocation of fees-in-lieu of taxes payable under the agreement for the establishment of a multi-county industrial/business park; and other matters relating thereto – No one signed up to speak.

- An Ordinance Authorizing the execution and delivery of an Infrastructure Credit Agreement by and between Richland County, South Carolina and Dominion Carolinas Gas Transmission, LLC with respect to certain economic development property in the county, whereby such property will be subject to certain payments in lieu of taxes, and such company will receive certain infrastructure credits in respect of investment in related infrastructure; and other matters related thereto – No one signed up to speak.

### APPROVAL OF CONSENT ITEMS

- 15-34MA, Tyson Reilly, RU to RS-E (202.56 Acres), Heins Rd., 23500-05-03 [THIRD READING]
- 15-37MA, Jonathan Yates, RU to GC (19.69 Acres), 4600 Hardscrabble Rd., 20300-03-03 & 04 [THIRD READING]
- 15-39MA, Nelson Lindsay, RU to LI (26.6 Acres), Baker Rd., 15100-03-02 & 03 [THIRD READING]
- 15-42MA, David Brandes, RU to GC (8.52 Acres), Piney Grove Rd. & Piney Woods Rd., 04913-04-01/02/33/11/14 [THIRD READING]
- 15-44MA, Sean Heideman, OI to GC (1 Acre), 5209 Two Notch Rd., 14108-09-12 [THIRD READING]

Ms. Dickerson moved, seconded by Ms. Dixon, to approve the consent items.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

Ms. Dickerson moved, seconded by Ms. Dixon, to reconsider this item. The motion failed.

**THIRD READING ITEMS**

**Authorizing the expansion of the boundaries of the I-77 Corridor Regional Industrial Park jointly developed with Fairfield County to include certain additional real property located in Richland County; the execution and delivery of a First Amendment to that certain Credit Agreement between Richland County and CD/Park7 Columbia SC High Rise Owner LLC to include such additional property as part of the project site described therein; and other related matters** – Ms. Dixon moved, seconded by Mr. Rose, to approve this item.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

Mr. Pearce moved, seconded by Mr. Malinowski, to reconsider this item. The motion failed.

**An Ordinance Authorizing the execution and delivery of Infrastructure Credit Agreement by and between Richland County, South Carolina and Dominion Carolinas Gas Transmission, LLC with respect to certain economic development property in the county, whereby such property will be subject to certain payments in lieu of taxes, and such company will receive certain infrastructure credits in respect of investment in related infrastructure; and other matters related thereto** – Mr. Livingston moved, seconded by Ms. Dickerson, to approve this item.

Mr. Washington inquired if the fee structure had been established for this item.

Mr. Ruble stated this is not a fee-in-lieu of taxes. It is a special source credit.

Mr. Malinowski requested in the future complete information be provided to the public. (i.e. Project VA)

FOR

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

AGAINST

The vote in favor was unanimous.

Mr. Pearce moved, seconded by Mr. Malinowski, to reconsider this item. The motion failed.

**15-35MA, Cynthia Weatherford, RS-HD to LI (1.27 Acres), 2610 Harlem St., 16204-08-01**

Mr. Washington moved, seconded by Mr. Jackson, to approve this item.

Mr. Washington inquired if the property owner communicated with Zoning regarding the layout of the building.

Mr. Price stated Mr. Weatherford provided him with a sketch of the proposed location of the building.

Mr. Washington further inquired if the property owner followed-up with Mr. Price regarding the buffering.

Mr. Price responded they have not spoken with him.

Mr. Washington made a substitute motion, seconded by Mr. Malinowski, to defer this item until the next Council meeting. The vote in favor was unanimous.

**SECOND READING ITEMS**

**Authorizing the execution and delivery of a fee-in-lieu of tax agreement by and between Richland County and Project Oro whereby Richland County will enter into a fee-in-lieu of tax agreement with Project Oro and providing for payment by Project Oro of certain fees-in-lieu of ad valorem taxes; providing for the allocation of fees-in-lieu of taxes payable under the agreement for the establishment of a multi-county industrial/business park; and other matters relating thereto** – Mr. Livingston moved, seconded by Ms. Dickerson, to approve this item.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

**An Ordinance Amending the Fiscal Year 2015-2016 Court Appointed Special Advocates Training Grant Annual Budget to add two new CASA Case Worker positions** – Ms. Dickerson moved, seconded by Ms. Dixon, to approve this item.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

**An Ordinance Amending the Richland County Code of Ordinances; Chapter 17, Motor Vehicles and Traffic; Article II, General Traffic and Parking Regulations; Section 17-10, Parking in Residential and Commercial Zones of the County; so as to prohibit the parking of motor vehicles in the front yard in certain Residential Zoning Districts** – Mr. Jeter moved, seconded by Ms. Dickerson, to defer this item until the next Council meeting.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote was in favor.

**An Ordinance Amending the Richland County Code of Ordinances; Chapter 18, Offenses; Section 18-4, Weeds and Rank Vegetation; so as to amend the time for notification** – Ms. Dixon moved, seconded by Mr. Malinowski, to approve this item.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

**REPORT OF THE DEVELOPMENT & SERVICES COMMITTEE**

- a. Removal of Lien off of Property** – Ms. Dixon stated the committee forwarded this item to Council with a recommendation for approval.

Mr. Malinowski stated this item was deferred at the last meeting Ms. Dixon requested additional information and the information was not included in the agenda packet.

Mr. Madden stated he conducted some research and was unable to find a specific policy that would prohibit Atlas Road Community Organization from applying for a federal grant. The organization

may run into a problem if they need to use the value of the property as a condition of the award of a grant since some organizations have their own criteria.

Mr. Malinowski inquired if the organization had indicated they planned to apply for a grant.

Mr. Madden stated it is his understanding they will not be seeking a grant at this time. The property will be utilized for future projects (i.e. a park or open space).

Mr. Livingston would like to research the possibility of putting a stipulation on the property that the lien be removed at this time, but if the organization were to sell the property the County would be reimbursed for the value of the lien.

Ms. Dickerson inquired about the quit claim deed of the property.

Mr. Smith stated the property was deeded to the Atlas Road Community Organization with a quit claim deed, which included the lien on the property, instead of a warranty deed.

The lien was placed on the property by the County to cover the cost of the County demolishing an unsafe structure on the property.

**FOR**

Dixon  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

Malinowski

The vote was in favor,

Mr. Washington moved, seconded by Mr. Pearce, to reconsider this item. The motion failed.

**REPORT OF THE ADMINISTRATION & FINANCE COMMITTEE**

- a. **Consulting and Representation Services—Disaster Recover RFP** – Mr. Pearce stated under the emergency procedures the County did an emergency procurement for disaster services. FEMA requires, however, that a RFP for services be put out. The process was not complete at the time of the committee meeting.

Ms. Patrick stated the proposal was published on October 29<sup>th</sup> and an amendment was issued November 6<sup>th</sup>. The proposals were due on November 16<sup>th</sup>. Thirteen proposals were received and

distributed to the evaluation committee on November 17<sup>th</sup>. The evaluators met with Ms. Patrick on December 3<sup>rd</sup>. The bid proposal by TetraTech was the most advantageous to the County.

Mr. Pearce moved, seconded by Mr. Jackson, to approve the evaluation committee's recommendation to award the contract to TetraTech.

<b><u>FOR</u></b>	<b><u>AGAINST</u></b>
Dixon	
Malinowski	
Rose	
Jackson	
Pearce	
Rush	
Livingston	
Dickerson	
Washington	
Manning	
Jeter	

The vote in favor was unanimous.

Mr. Pearce moved, seconded by Ms. Dixon, to reconsider this item. The motion failed.

### **REPORT OF THE ECONOMIC DEVELOPMENT COMMITTEE**

- a. **Palmetto Health JEDA Bond Issuance** – Mr. Livingston stated the committee recommended approval of this item.

<b><u>FOR</u></b>	<b><u>AGAINST</u></b>
Dixon	
Malinowski	
Rose	
Jackson	
Pearce	
Rush	
Livingston	
Dickerson	
Washington	
Manning	
Jeter	

The vote in favor was unanimous.

Mr. Livingston moved, seconded by Ms. Dickerson, to reconsider this item. The motion failed.

- b. **Waterpark Contract(s)** – This item was taken up in Executive Session.

- c. **Project RS** – This item was taken up in Executive Session.

**REPORT OF RULES AND APPOINTMENTS COMMITTEE**

**I. NOTIFICATION OF VACANCIES**

- a. **Lexington Richland Alcohol and Drug Abuse Council (LRADAC) – 1** – Mr. Malinowski stated the committee recommended advertising for the vacancy. The vote in favor was unanimous.
- b. **Accommodations Tax Committee – 2 (One Applicant must have a background in the Cultural Industry; other applicant must have a background in the Lodging Industry)** – Mr. Malinowski stated the committee recommended advertising for the vacancies. The vote in favor was unanimous.
- c. **Hospitality Tax Committee – 3 (Two of the applicants must have a background in the Restaurant Industry; other position is at-large)** – Mr. Malinowski stated the committee recommended advertising for the vacancies. The vote in favor was unanimous.
- d. **Internal Audit – 1 (Applicant must be a CPA)** – Mr. Malinowski stated the committee recommended advertising for the vacancy. The vote in favor was unanimous.
- e. **Business Service Center – 1 (Applicant must be a CPA)** – Mr. Malinowski stated the committee recommended advertising for the vacancy. The vote in favor was unanimous.
- f. **Employee Grievance – 1** – Mr. Malinowski stated the committee recommended advertising for the vacancy. The vote in favor was unanimous.

**REPORT OF THE DIRT ROAD AD HOC COMMITTEE**

- a. **Jouster Street Dirt Road Paving, Sheltered Market SLBE Construction Contract** – Ms. Dixon stated the committee recommended award of contract to Armstrong Contractors in the amount \$151,363.85, which includes a 10% contingency. The company is located in Blythewood.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

Ms. Dixon moved, seconded by Ms. Dickerson, to reconsider this item. The motion failed.

**REPORT OF THE TRANSPORTATION AD HOC COMMITTEE**

- a. **Sidewalk Package S-1, Sheltered Market SLBE Construction Contract** – Mr. Livingston stated the committee recommended award of contract to Armstrong Contractors in the amount \$103,037.80, which includes a 10% contingency.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

Mr. Livingston moved, seconded by Ms. Dickerson, to reconsider this item. The motion failed.

**REPORT OF THE TRANSPORTATION AD HOC COMMITTEE**

- a. **Destination Parks Funding Plan** – Mr. Washington stated the funding plan would be brought forward at the next meeting after First Reading approval of the waterpark bond ordinance.
  - 1. **A Second Supplemental Ordinance providing for the issuance and sale of Richland County, South Carolina, Hospitality Tax Revenue Bonds, taxable series 2016, or such other appropriate series designation, in the principal amount of not exceeding \$20,000,000; delegating authority to the County Administrator to determine certain matters with respect to the bonds; prescribing the form and details of such bonds; and other matters relating thereto [FIRST READING]** – Mr. Washington moved, seconded by Mr. Malinowski, to defer action on this item until after Executive Session. The vote in favor was unanimous.

**CITIZENS' INPUT  
(Must Pertain to Items Not on the Agenda)**

Ms. Helen Taylor Bradley and Ms. Carol Goodson Eaddy spoke regarding the Lower Richland Sewer Project.

Ms. Sabrina Todd, Ms. Rachel Larratt, Mr. Paul Truesdale, Ms. Teresa Schlosser spoke regarding the flooding event.

Ms. Donya Atwood and Ms. Petrina Green spoke regarding non-payment for services rendered at the Lower Richland Operations Center.

Mr. Livingston requested that Project Oro be added to the items to be discussed in Executive Session.

**EXECUTIVE SESSION**

*Council went into Executive Session at approximately 7:57 p.m.  
and came out at approximately 9:50 p.m.*

- a. **Waterpark Contract(s)** – Mr. Livingston moved, seconded by Ms. Dickerson, to proceed with waterpark contract as discussed in Executive Session.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

Mr. Livingston moved, seconded by Ms. Dickerson, to reconsider this item. The motion failed.

- b. **Sheriff's Department Potential Purchase of Property** – Mr. Pearce moved, seconded by Ms. Dixon, to proceed with Sheriff's Department request to purchase of property.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

Mr. Pearce moved, seconded by Ms. Dixon, to reconsider this item. The motion failed.

- c. **Transportation Sales Tax Expenditures** – No action was taken.
- d. **Project RS** – Mr. Livingston moved, seconded by Mr. Manning, to approve the waiver as discussed in Executive Session.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning  
Jeter

**AGAINST**

The vote in favor was unanimous.

- e. **Personnel Matter** – Mr. Manning moved, seconded by Ms. Dickerson, to draft language mutually agreed upon between County Council and the County Administrator to extend the contract deadline to December 31, 2016.

Mr. Jackson made a substitute motion, seconded by Mr. Washington, to extend the contract until the first Council meeting after Council Retreat.

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Regular Session  
Tuesday, December 8, 2015  
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**FOR**

Dixon  
Jackson  
Washington

**AGAINST**

Malinowski  
Rose  
Pearce  
Rush  
Livingston  
Dickerson  
Manning

The substitute motion failed.

Mr. Washington made a substitute motion to add to the original motion a succession plan and an assessment of administration operations.

The substitute motion died for lack of a second.

Mr. Jackson stated he had no problem with moving forward with the Administrator. He is concerned with awarding a contract and then discuss with the Administrator the terms and expectations. He further stated he has concerns with procedures and processes with the Administrator and his staff.

Mr. Washington stated his concern with moving forward is that Council has not had a comprehensive conversation with the Administrator regarding expectations and plans for the future.

Ms. Dixon stated her concerns include discrimination among employees and bias among Council members. She further stated Council members were elected by the citizens in their districts and everyone should be treated fairly.

**FOR**

Malinowski  
Rose  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning

**AGAINST**

Dixon  
Jackson

The vote was in favor.

Ms. Dickerson moved, seconded by Mr. Rose, to reconsider this item.

Mr. Rose stated he really appreciates the Administrator and under his leadership he does things in a honest way and acts in the best interest of the Council.

Ms. Dickerson stated she has been working with Mr. McDonald for approximately 12 years and they have developed a relationship wherein if she has a problem they sit down and discuss the problem.

Mr. Washington stated his concerns are about things falling through the cracks regarding his Council district, which was highlighted with the flooding event.

Mr. Jackson stated his concern is with the accountability of some of Administration's staff members.

The motion for reconsideration failed.

### **MOTION PERIOD**

- a. **Richland County Resolution recognizing January as Human Trafficking Prevention Month [DIXON and MANNING]** –Mr. Pearce moved, seconded by Mr. Manning, to adopt a resolution recognizing January as Human Trafficking Prevention Month.

**FOR**

Dixon  
Malinowski  
Rose  
Jackson  
Pearce  
Rush  
Livingston  
Dickerson  
Washington  
Manning

**AGAINST**

The vote in favor was unanimous.

### **ADJOURNMENT**

The meeting adjourned at approximately 10:12 PM.

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Torrey Rush, Chair

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Greg Pearce, Vice-Chair

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Joyce Dickerson

**Richland County Council  
Regular Session  
Tuesday, December 8, 2015  
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Julie-Ann Dixon

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Norman Jackson

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Damon Jeter

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Paul Livingston

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Bill Malinowski

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Jim Manning

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Seth Rose

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Kelvin E. Washington, Sr.

The Minutes were transcribed by Michelle M. Onley, Deputy Clerk of Council

## Richland County Council Request of Action

**Subject:**

15-35MA

Cynthia Weatherford

RS-HD to LI (1.27 Acres)

2610 Harlem St.

16204-08-01 [THIRD READING]

FIRST READING: November 24, 2015

SECOND READING: December 1, 2015

THIRD READING:

PUBLIC HEARING: November 24, 2015

STATE OF SOUTH CAROLINA  
COUNTY COUNCIL OF RICHLAND COUNTY  
ORDINANCE NO. \_\_\_\_-15HR

AN ORDINANCE OF THE COUNTY COUNCIL OF RICHLAND COUNTY, SOUTH CAROLINA, AMENDING THE ZONING MAP OF UNINCORPORATED RICHLAND COUNTY, SOUTH CAROLINA, TO CHANGE THE ZONING DESIGNATION FOR THE REAL PROPERTY DESCRIBED AS TMS # 16204-08-01 FROM RS-HD (RESIDENTIAL, SINGLE-FAMILY – HIGH DENSITY DISTRICT) TO LI (LIGHT INDUSTRIAL DISTRICT); AND PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

Pursuant to the authority granted by the Constitution of the State of South Carolina and the General Assembly of the State of South Carolina, BE IT ENACTED BY RICHLAND COUNTY COUNCIL:

Section I. The Zoning Map of unincorporated Richland County is hereby amended to change the real property described as TMS # 16204-08-01 from RS-HD (Residential, Single-Family – High Density District) zoning to LI (Light Industrial District) zoning.

Section II. Severability. If any section, subsection, or clause of this Ordinance shall be deemed to be unconstitutional, or otherwise invalid, the validity of the remaining sections, subsections, and clauses shall not be affected thereby.

Section III. Conflicting Ordinances Repealed. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section IV. Effective Date. This ordinance shall be effective from and after \_\_\_\_\_, 2015.

RICHLAND COUNTY COUNCIL

By: \_\_\_\_\_  
Torrey Rush, Chair

Attest this \_\_\_\_\_ day of  
\_\_\_\_\_, 2015.

\_\_\_\_\_  
S. Monique McDaniels  
Clerk of Council

Public Hearing: November 24, 2015  
First Reading: November 24, 2015  
Second Reading: December 1, 2015 (tentative)  
Third Reading:

## Richland County Council Request of Action

**Subject:**

An Ordinance Amending the Richland County Code of Ordinances; Chapter 17, Motor Vehicles and Traffic; Article II, General Traffic and Parking Regulations; Section 17-10, Parking in Residential and Commercial Zones of the County; so as to prohibit the parking of motor vehicles in the front yard in certain Residential Zoning Districts

FIRST READING: December 1, 2015

SECOND READING: December 8, 2015 {Tentative}

THIRD READING: February 9, 2016 {Tentative}

PUBLIC HEARING: February 9, 2016 {Tentative}

STATE OF SOUTH CAROLINA  
COUNTY COUNCIL FOR RICHLAND COUNTY  
ORDINANCE NO. \_\_\_-16HR

AN ORDINANCE AMENDING THE RICHLAND COUNTY CODE OF ORDINANCES; CHAPTER 17, MOTOR VEHICLES AND TRAFFIC; ARTICLE II, GENERAL TRAFFIC AND PARKING REGULATIONS; SECTION 17-10, PARKING IN RESIDENTIAL AND COMMERCIAL ZONES OF THE COUNTY; SO AS TO PROHIBIT THE PARKING OF MOTOR VEHICLES IN THE FRONT YARD IN CERTAIN RESIDENTIAL ZONING DISTRICTS.

Pursuant to the authority granted by the Constitution and the General Assembly of the State of South Carolina, BE IT ENACTED BY THE COUNTY COUNCIL FOR RICHLAND COUNTY:

SECTION I. The Richland County Code of Ordinances; Chapter 17, Motor Vehicles and Traffic; Article II, General Traffic and Parking Regulations; Section 17-10, Parking in Residential Zones of the County; is hereby amended to read as follows:

**Section 17-10. Parking in residential and commercial zones of the county.**

(a) For the purpose of this section, the following definitions shall apply:

(1) ~~*Fitted cover*~~, ~~for the purpose of this section~~, means a cover that conforms to the basic shape of the vehicle and covers all portions of such vehicle.

~~(2) *Improved surface means that the surface of a parking space is completely paved with concrete, asphalt, or some other like rigid surface, such as pavers or pervious concrete; to be certain, "improved" does not include gravel or crush and run, even when compacted.*~~

~~(23) *Motor Vehicle*~~ means every vehicle which is self-propelled, except mopeds, and every vehicle which is propelled by electric power obtained from overhead trolley wires, but not operated upon rails.

~~(34) *Semi-trailer*~~ means every vehicle, with or without motive power, designed for carrying persons or property and for being drawn by a motor vehicle, and constructed that some part of its weight and that of its load rests upon or is carried by another vehicle; and exceeds a gross weight of 10,000 pounds, or a manufacturer's gross vehicle weight rating (GVWR) of 10,000 pounds.

~~(45) *Trailer (other than semi-trailer)*~~ means every vehicle, with or without motive power, designed for carrying persons or property and for being drawn by a motor vehicle; and which does not exceed a gross weight of 10,000 pounds, or a manufacturer's gross vehicle weight rating (GVWR) of 10,000 pounds. ~~This definition excludes camping trailers, boat trailers, travel trailers, and~~

~~utility trailers, as such are regulated in the Richland County Land Development Code at Section 26-173 (f).~~

(56) *Truck tractor* means every motor vehicle designed and used primarily for drawing other vehicles; and not so constructed as to carry a load other than a part of the weight of the vehicle and the load drawn.

(b) It shall be unlawful for a truck tractor, a semi-trailer, or a trailer to be parked on any public street, road, right-of-way or as otherwise prohibited by the Richland County Code of Ordinances in the unincorporated portions of the county which are or hereafter shall be designated as Rural Residential, Single-Family Residential, Manufactured Home, or General Residential under the Richland County Zoning Ordinance and the “Zoning Map of Unincorporated Richland County”, as amended.

(c) Except as is provided in subsection (d), below, it shall be unlawful for any truck tractor, semi-trailer or trailer to be parked, stored or located on a lot in any residential zoning district in the unincorporated areas of the county [except for those parcels that are one (1) acre or greater in the (RU) Rural zoning district] unless the entire portion of such truck tractor, semi-trailer or trailer is parked, stored or located in an enclosed garage or in a carport at the residence, or is enclosed under a fitted cover.

(d) Notwithstanding subsections (b) and (c), above, truck tractors, semi-trailers or trailers that are in active use in the provision of a service or delivery or removal of property or material at or from a residence in a residential zoning district may park on the public street, road, right-of-way or lot at which the service is being provided or the delivery or removal is being made, for only the duration of the service provision or delivery or removal as provided for herein. For purposes of this section, “active loading or unloading” shall include, but not be limited to, the delivery or removal of furniture, yard trash or debris, household or building materials, tangible personal property and the like, evidenced by the active involvement (e.g., the loading, unloading, service provision or supervision thereof) of the owner, operator, delivery personnel, service provider, or other person responsible for parking or causing to be parked the truck tractor, semi-trailer or trailer while the truck tractor, semi-trailer or trailer is parked on the public street, road, right-of-way or lot subject to this section. For purposes of this section, “active loading and unloading” does not include parking or “staging” a truck tractor, semi-trailer or trailer, leaving the same unattended and then engaging in loading, unloading, removal or service provision at a subsequent point beyond twenty-four (24) hours.

(e) It shall be unlawful for a motor vehicle, or wheeled conveyance of any kind required by law to be licensed that is unlicensed, or is displaying an expired or invalid license to be parked on any public street or road, right-of-way or as otherwise prohibited by the Richland County Code of Ordinances in the unincorporated portions of the county which are or hereafter shall be designated as Rural Residential, Single-Family Residential, Manufactured Home, or Multi-Family Residential under the Richland County Zoning Ordinance and the “Zoning Map of Unincorporated Richland County”, as amended.

(f) All motor vehicles or trailers without a valid state-issued license plate permitting operation on public roads and highways, which are stored, parked, or located on a lot in any zoning district in the unincorporated areas of the county, except for those parcels that are three (3) acres or greater in the (RU) Rural zoning district, are required to be kept in a garage, carport, or protected from the elements by a fitted cover. Licensed automobile dealerships, persons licensed to conduct businesses involving storage and sale of junk and scrap, trailers utilized as temporary structures in conjunction with construction activities, and vehicles used in agricultural operations and which are not operated on the public roads and highways are exempt.

(g) Any motor vehicle or trailer that is not capable of operating in accordance with South Carolina law or, in the case of a motor vehicle, not capable of moving under its own power (even if it has a valid state-issued license plate permitting operation on public roads and highways) shall not be stored, parked, or located on a lot in any residential or commercial zoning district in the unincorporated areas of the county (except for those parcels that are three (3) acres or greater in the (RU) Rural zoning district) for more than forty-five (45) consecutive days unless it is kept in an enclosed garage, in a carport, or protected from the elements by a fitted cover.

(h) All motor vehicles parked within the front yard or secondary front yard (corner lots) of any property zoned RS-LD, RS-MD, or RS-HD must be parked on an improved surface. Provided, however, motor vehicles may be parked on the grass of the front yard or secondary front yard on a temporary basis if the homeowner is hosting a special event and there is not enough parking available on the street.

(hi) *Penalties:* Upon a finding by a deputy sheriff of a violation, any offender shall have an opportunity to cure the violation within a prescribed period of time; provided that the period of time allowed shall not begin to run until notice of the violation is provided to the offender. Notice shall be sufficient if provided by personal contact directly with the offender or by talking on the telephone with the offender, by the offender having accepted written notice by certified mail, or by placement of a notice of violation on the vehicle, motor vehicle, truck tractor, semi-trailer, or trailer. If the offender, resident, owner of the vehicle, motor vehicle, truck tractor, semi-trailer, or trailer or owner of the real property on which the violation occurred fails to take proper corrective action, in the prescribed time, such person shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined not more than five hundred (\$500.00) dollars or imprisoned for not more than thirty (30) days, or both. Each day such violation continues after due notice shall be considered a separate offense. Any owner and/or operator of a vehicle, motor vehicle, truck tractor, semi-trailer, or trailer which is in violation of this section (or if the offender is unable to be located, any owner of land on which the violation occurred), and any person who commits, participates in, assists in, or maintains that violation may each be found guilty of a separate offense and suffer the penalties set forth herein. In the event that an offender has been previously cited for or given notice of a violation of this section, enforcement action may be taken immediately without the requirement of an opportunity to cure the violation.

(i) *Administration and enforcement:* The Sheriff of Richland County shall be authorized to enforce the provisions of this section and to engage a towing service to remove any vehicle parked in violation of these regulations, provided the cost of towing services shall be charged to the registered owner of any vehicle so removed.

SECTION II. Severability. If any section, subsection, or clause of this ordinance shall be deemed to be unconstitutional or otherwise invalid, the validity of the remaining sections, subsections, and clauses shall not be affected thereby.

SECTION III. Conflicting Ordinances Repealed. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

SECTION IV. Effective Date. This ordinance shall be effective from and after \_\_\_\_\_, 2016.

RICHLAND COUNTY COUNCIL

BY: \_\_\_\_\_  
Torrey Rush, Chair

ATTEST THIS THE \_\_\_\_ DAY

OF \_\_\_\_\_, 2016

\_\_\_\_\_  
S. Monique McDaniels  
Clerk of Council

RICHLAND COUNTY ATTORNEY'S OFFICE

\_\_\_\_\_  
Approved As To LEGAL Form Only  
No Opinion Rendered As To Content

First Reading: December 1, 2015 (tentative)  
Second Reading:  
Public Hearing:  
Third Reading:

## Richland County Council Request of Action

**Subject:**

Resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300

## Richland County Council Request of Action

**Subject:** Resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300

### A. Purpose

County Council is requested to consider Mr. Rose's motion to enact a Resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300.

### B. Background / Discussion

At the October 20, 2015 County Council meeting, Mr. Rose brought forth the following motion:

“Move to enact a resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300. Rationale: Per the Environmental Protection Agency, "IVM is generally defined as the practice of promoting desirable, stable, low-growing plant communities-that will resist invasion by tall-growing tree species-through the use of appropriate, environmentally sound, and cost-effective control methods." An added benefit to this technique is that it offers a protective environment for wildlife to flourish. The American National Standards Institute has been in existence since 1918. Its primary goal is the "enhancement of global competitiveness of U.S. business and the American quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and promoting their integrity." While utilities in Richland County appear to maintain their transmission right of ways using some of the techniques set forth under the ANSI standard, none of them use them all, and none of them fully follow the standard. Standards are there for a reason: because they are best practices. Richland County has hundreds of square miles of transmission right of way, and it needs to be utilized to its full capacity to promote the health of our citizens and our wildlife habitat.”

The American National Standards Institute (ANSI) oversees the creation, promulgation and use of norms and guidelines that directly impact businesses in different sectors: from acoustical devices to construction equipment, from dairy and livestock production to energy distribution and the tree care industry.

ANSI A300 provides unified standards for the tree care industry. The A300 standards are divided into multiple parts, each focusing on a specific aspect of woody plant management (e.g. Pruning, IVM, etc) and are used to develop written specifications for work assignments. The standards apply to professionals who provide for or supervise the management of trees, shrubs, and other woody landscape plants, such as property managers and utility companies.

Part 7 of the ANSI A300 applies to IVM for utility rights-of-way (ROW), and provides general standards for professionals in the tree care industry as it pertains to site evaluations, vegetation control methods, herbicide application processes, etc.

At this time staff, staff is requesting Council consideration of Mr. Rose's motion.

Part 7 of the ANSI A300 is attached, along with a draft Resolution, to this request of action.

**C. Legislative / Chronological History**

There is no legislative history associated with this request.

**D. Financial Impact**

There is no financial impact associated with this request

**E. Alternatives**

- 1. Consider Mr. Rose’s motion and unanimously approve the Resolution.
- 2. Consider Mr. Rose’s motion and do not unanimously approve the Resolution.

**F. Recommendation**

I recommend unanimous approval of the Resolution.

Recommended by: Seth Rose

Department: County Council

Date: October 20, 2015

**G. Reviews**

(Please replace the appropriate box with a ✓ and then support your recommendation in the Comments section before routing on. Thank you!)

Please be specific in your recommendation. While “Council Discretion” may be appropriate at times, it is recommended that Staff provide Council with a professional recommendation of approval or denial, and justification for that recommendation, as often as possible.

**Finance**

Reviewed by: Daniel Driggers

Date: 11/3/15

Recommend Council approval

Recommend Council denial

Recommend Council discretion

Comments regarding recommendation:

Request is a policy decision for Council’s discretion with no financial impact.

**Legal**

Reviewed by: Elizabeth McLean

Date: 11/4/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Policy decision left to Council’s discretion.

**Administration**

Reviewed by: Sparty Hammett

Date: 11/4/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Council discretion.



# Best Management Practices

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## **INTEGRATED VEGETATION MANAGEMENT FOR UTILITY RIGHTS-OF-WAY Second Edition 2014**

**Randall H. Miller**

ISBN: 978-1-881956-81-5

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Editorial Coordinator: Wes Kocher

Production Coordinator: Amy Theobald

Cover Composition and Layout: Kathy Ashmore

Illustrations by Bryan Kotwica

Printed by: Martin One Source, Champaign, Illinois, USA

International Society of Arboriculture

P.O. Box 3129

Champaign, Illinois 61826-3129, USA

+1(217) 355-9411

www.isa-arbor.com

permissions@isa-arbor.com

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## Purpose

The International Society of Arboriculture (ISA) has developed a series of Best Management Practices (BMPs) for the purpose of interpreting tree care standards and providing guidelines of practice for arborists, tree workers, and the people who employ their services.

Because trees and other plants are unique living organisms, and they—as well as the ecosystems in which they live—are variable by nature, not all practices can be successfully applied in all cases. A qualified arborist or utility vegetation manager should write or review contracts and specifications using national standards and this BMP. Departures from the standards should be made with careful consideration of the objectives and with supporting rationale.

This BMP is for the selection and application of methods and techniques for vegetation control for electric rights-of-way projects and gas pipeline rights-of-way. It also serves as a companion publication for the integrated vegetation management portion of the *American National Standard for Tree Care Operations—Tree, Shrub, and Other Woody Plant Management—Standard Practices (Integrated Vegetation Management a. Utility Rights-of-Way)* (ANSI A300, Part 7).

## Acknowledgments

### The Integrated Vegetation Management Best Management Practices Review Committee (Second Edition)

Paul Appelt, Environmental Consultants, Stoughton, Wisconsin, USA  
Jennifer Arkett, Duquesne Light Co., Pittsburgh, Pennsylvania, USA  
Richard Johnstone, Integrated Vegetation Management Partners, Inc., Newark, Delaware, USA  
Geoffrey P. Kempter, Asplundh Tree Experts, Willow Grove, Pennsylvania, USA  
Mike Neal, Arizona Public Service, Phoenix, Arizona, USA  
Chris Nowak, State University of New York, EFS, Syracuse, New York, USA  
William Rees, Baltimore Gas and Electric, Baltimore, Maryland, USA  
Matt Simons, Atlantic City Electric, Mays Landing, New Jersey, USA  
Derek Vannice, CN Utility Consulting, Sebastopol, California, USA

## Introduction

Unmanaged vegetation growing near utility rights-of-way can damage utility facilities and cause problems with safety, reliability, access, emergency service restoration, regulatory compliance, security, and lines-of-sight. It can also compromise compliance with environmental, legal, regulatory, and other requirements.

Vegetation interference with power lines is one of the most common causes of electrical outages on distribution systems, and has initiated transmission grid failures that have subjected millions of people to lengthy blackouts. Vegetation can cause electric service interruptions when it contacts overhead high voltage conductors or comes sufficiently close to create a spark-over. Vegetation and conductors can come too close together when they are blown into one another by high winds, or when lines stretch and sag due to high temperatures, heavy snow, or ice buildup (Figure 1). During dry conditions, vegetation sparking-over with power lines can start wildfires. Trees may also provide access for children, workers, and others to high voltage lines overhead, potentially resulting in direct or indirect contact that can cause serious injury or death.

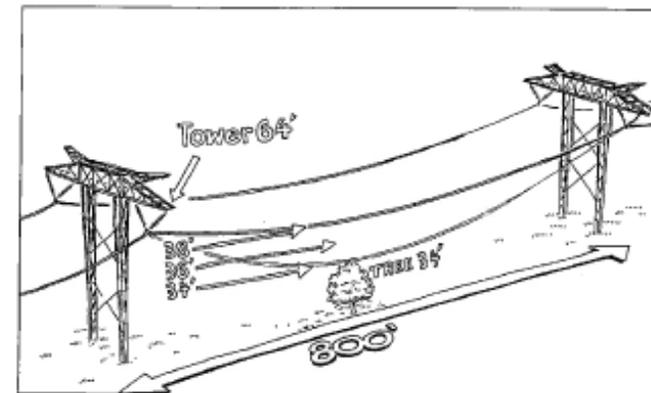


Figure 1. Line sag.

Vegetation can interfere with access to, and maintenance of, pipelines. For example, underground pipelines can be obstructed by vegetation, making it impossible to detect leaks from the ground or air.

Utilities must comply with federal, state or provincial, and local regulations that require vegetation control in proximity to electric and gas facilities. For example, in the United States, the North American Electric Reliability

Corporation (NERC) *Transmission Vegetation Management Program* standard contains clearance requirements for critical transmission lines. Moreover, the Energy Policy Act of 2005<sup>1</sup> contains provisions for electric system reliability standards, including those for vegetation management. Based on this provision, the Federal Energy Regulatory Commission has adopted the NERC *Transmission Vegetation Management Program* standard (NERC 2008), which essentially gives the NERC standard the force of law. Another important regulation is the National Electrical Safety Code (NESC [IEEE 2012]), section 218, of which requires utilities to prune or remove trees that may damage ungrounded supply conductors.

Many utilities manage millions of trees across thousands of miles (kilometers) of line. That means in every mile (1.6 km) of line, a utility can potentially have hundreds of trees, any one of which could compromise public safety and electrical service reliability. It is impossible to completely secure an electrical system from that level of exposure. Nevertheless, vegetation managers have a responsibility to make a reasonable effort to maintain vegetation to reduce risks to both the public and utilities. The integrated vegetation management (IVM) best management practices outlined in this publication are tools for use toward that objective.

The intent of this publication is to serve as a companion to ANSI A300 Part 7: *Tree, Shrub, and Other Woody Plant Maintenance—Standard Practices (Integrated Vegetation Management a. Electric Utility Rights-of-Way)* (ANSI 2012). It is designed to provide practitioners with what industry experts consider to be the most appropriate integrated vegetation management (IVM) techniques to apply to utility right-of-way projects. Integrated vegetation management best practices can also be used to fulfill other objectives, such as vegetation control on gas pipeline rights-of-way, and activities outside the scope of utility right-of-way management—including restoring ecosystems, improving wildlife habitat, preserving cultural resources, protecting successional plant species, controlling invasive weeds, and other actions. Determining the best technique for a particular project takes experience and knowledge because natural conditions are dynamic. Therefore, this publication is not intended as a substitute for the expertise of a utility vegetation manager.

<sup>1</sup> United States Congress. P.L. 109-58, enacted August 8, 2005, section 1211

A utility vegetation manager is an individual engaged in the profession of vegetation management, who through education and related training, has the competence to design, implement, or supervise an IVM program. The expertise of a utility vegetation manager contrasts with that of an arborist insofar as the utility vegetation manager focuses on ecosystems, while arborists concentrate on individual trees. For the purposes of this publication, the utility vegetation manager is a utility employee or their contract representative who will set objectives, evaluate site conditions, make decisions on action thresholds and control methods, and perform quality assurance once work is complete.

### IVM Defined

*ANSI A300 Part 7* defines IVM as a system of managing plant communities in which managers set objectives, identify compatible and incompatible vegetation, consider action thresholds, and evaluate, select, and implement the most appropriate control method or methods to achieve their established objectives. The choice of control method or methods is based on considerations of their environmental impact and anticipated effectiveness, along with site characteristics, security, economics, current land use, and other factors.

Nowak (2013) offers a more in-depth definition of IVM, as a system for controlling undesirable vegetation that is consistent with principles and practices of Integrated Pest Management (IPM), designed to achieve specific management objectives, and continually improve processes. It is used to systematically choose, justify, selectively implement, and monitor different types of vegetation management treatments. Treatment selection is based on the control method's effectiveness, economic viability, and environmental impact, along with its suitability for safety, site characteristics, security, socio-economics, and other factors. IVM uses combinations of methods to promote sustainable plant communities that are compatible with the intended use of the site, and to control, discourage, or prevent establishment of incompatible plants that may pose safety, security, access, fire hazard, utility service reliability, emergency restoration, visibility, line-of-sight requirements, regulatory compliance, environmental, or other specific concerns.

The key steps of IVM consistent with IPM are:

- 1) Gaining science-based understanding of incompatible vegetation and ecosystem dynamics;
- 2) Setting management objectives and tolerance levels based on institutional requirements and broad stakeholder input;

- 3) Selecting treatments from a variety of options, including biological, chemical, manual, mechanical, and cultural control methods—and applying them to promote desirable desired plant communities, with an emphasis on management through biological controls, and
- 4) Monitoring treatments to determine their necessity and effectiveness in creating desired plant communities and achieving management objectives. IVM is a sustainable management method for utility rights-of-way because it balances socioeconomic and environmental considerations.

IVM is not a set of rigid prescriptions based upon set time periods, repeated unselective mowing, or broadcast spraying across entire right-of-way widths without the objective of establishing diverse, compatible plant communities.

## Safety

Utility vegetation management operations can be dangerous without rigorous training and strict adherence to proper safety procedures. For that reason, utility vegetation managers need to inspire a culture of safety throughout their organizations. They should employ only qualified professionals who have demonstrated their ability to work according to accepted safe practices, or qualified trainees dedicated to learning safe work practices.

In the United States, the Occupational Safety and Health Administration (OSHA) requires employers to train their workers in electric safety<sup>2</sup>. Annex B of the *American National Standard for Arboricultural Operations—Safety Requirements* (ANSI Z133-2012) contains guidelines for standard performance and safety training for qualified line clearance arborists. OSHA 1910.269 and ANSI Z133 complement one another on governing electric safety in arboricultural operations, with OSHA 1910.269 requiring electric safety training and ANSI Z133 offering guidance on how that training should be provided.

<sup>2</sup>OSHA. United States Department of Labor. 1910.269. Electric Power Generation, Transmission and Distribution. Accessed August 2013 <[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&D\\_FYER=11-08&C=1](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&D_FYER=11-08&C=1)>

## I. Communication

Communication is essential to planning and implementing a successful vegetation management program. Proper communication should be open and interactive. It involves a formal, documented communication strategy for each phase of planning and implementation. The plan needs to entail more than just relating work instructions to vegetation crews. It should designate primary and secondary objectives and involve all stakeholders: management, other utility departments, planners, contractors, vegetation management crews, property owners, public land managers, appropriate governmental officials, members of organizations dedicated to related causes, and others.

### Internal Communication

Communication within a utility's vegetation management department needs to be clear and concise to ensure everyone understands the desired results. Specifications and performance goals should delegate decision-making authority throughout the organization.

Communication among utility decision makers, including executives, engineers, corporate communications, operations managers, vegetation management staffs, and other utility departments should include why, where, when, and how IVM projects will be conducted. The discussion should emphasize the importance of the benefits of implementing IVM best practices. This is important because people within an organization but outside of the vegetation management department can help set priorities, anticipate and prevent potential problems, expand the communication network, and provide historical perspectives. Communicating with operations staff during work can also add a margin of safety. By knowing there is a vegetation management job underway, they may be able to respond more quickly to incidents and accidents than they would if they were unaware of the project.

Communication among utility vegetation managers, contract general foremen, supervisors, and workers should be both written and verbal. Written instructions ought to include the information needed to successfully complete a project, including specifications, policies and procedures, details about known stakeholders, locations of environmentally or culturally sensitive areas, applicable laws and regulations, and any other considerations of consequence. Debriefings should be planned to review challenges and lessons learned for future projects.

## Communication with External Stakeholders

Public land managers, property owners, regulators, interest groups, and other affected parties often have legitimate concerns in utility vegetation management activities. It is important to communicate with them about the need for, benefits of, and science behind IVM to clarify expectations. Members of the vegetation management team, including crew members, should know the facts about the program, and be prepared to answer basic questions and refer more complex issues through proper channels. Communication should begin well in advance of work and involve listening to and understanding people's specific concerns. Modifications may be implemented to address legitimate issues, and these secondary objectives may be achieved provided those changes do not sacrifice primary management objectives of safety, reliability, and access.

Affected property owners and known stakeholders should be notified of upcoming work. Notification can be electronic or by mail, public notice, door hanger, personal visit, or other manner. In some cases, the best approach uses a combination of methods. Notification should include a brief explanation of when work is planned, why it needs to be done, its general location, a description of the project (e.g., mowing, herbicide, manual or other method), potential crew types, crew numbers, and other information that might help people understand the job. If property owners cannot be met in person, electronic or written notices may be used that contain contact numbers for use by those who need more information. In most cases, notification can be a proactive effort that informs stakeholders of the benefits of an IVM program.

Work on governmentally-managed property can involve administrative procedures that take months of advance work, including navigating through permit processes and the concerns of specialists who have responsibility for stewardship over public lands. Vegetation managers should educate land specialists on how IVM helps balance stewardship considerations with the need for providing safe, reliable service.

## 2. Planning and Implementation

ANSI A300, Part 7 offers a systematic way of planning and implementing a vegetation management program. It is applicable to distribution as well as transmission projects and consists of six elements:

1. Set Objectives
2. Evaluate the Site
3. Define Action Thresholds
4. Evaluate and Select Control Methods
5. Implement Control Methods
6. Monitor Treatment and Quality Assurance

Decisions are required in setting objectives, defining action thresholds, and evaluating and selecting control methods. The process is cyclical (Figure 2), because managing dynamic systems is ongoing. Managers must have the flexibility to adjust their plans at each stage as new information becomes available and circumstances evolve.

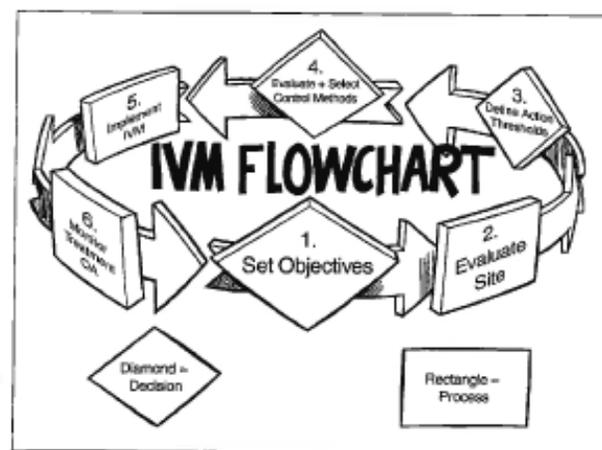


Figure 2. A300 Part 7 IVM flowchart.

## Set Objectives

Objectives should be clearly defined and documented by the vegetation manager and be based on the intended purpose and use of the site. They should be SMART: specific, measurable, attainable, realistic, and timely. It is best to establish objectives that are precise and explain exactly what needs to be done, who needs to do it, and where it needs to be done. The objectives are measurable so progress can be impartially determined. Unattainable or irrelevant goals are pointless, and timeliness requires deadlines to drive completion of the goal (Duran 1981).

Examples of objectives for electric utilities can include promoting safety, preventing outages caused by vegetation growing into transmission facilities and minimizing them from trees growing outside the right-of-way, maintaining regulatory compliance, protecting structures and security, restoring electric service during emergencies, maintaining access and clear lines of sight, protecting the environment, and facilitating cost effectiveness. Metrics should be applied to each goal. For instance, a dollar per mile or acre goal could be set for a particular control method's cost effectiveness.

Objectives for pipelines can involve safety, route identification, testing, encroachments, and maintenance and inspection, particularly aerial and ground patrol needed for leak detection. Route identification is particularly important for underground facilities, which are only identified by above-ground markers or valves, and measuring stations adjacent to the pipeline, which can be easily hidden by unmaintained vegetation that has become overgrown. On gas pipeline rights-of-way, it's often best to select smaller, lower-growing plant species that are typically more sensitive to gas than larger, taller-growing trees in order to facilitate early gas leak detection. Border zone (see *Wire-border Zone Concept*) species could be selected that do not interfere with access for inspection, maintenance, or cause root obstruction. Tree roots may interfere with underground pipelines by compromising the coating integrity of some lines (Stedman and Brockbank 2012). A comparison of electric and pipeline rights-of-way concerns is presented in Table 1.

Objectives should be based on site factors, such as vegetation type, in addition to human, equipment, and financial resources. Objectives will vary from utility to utility and project to project, depending on line voltage or pipeline capacity and criticality, as well as logistical, topographical, environmental, fiscal, social, and political considerations. However, where it is appropriate, the overriding focus should be on environmentally-sound, cost-effective control of species that could potentially conflict with the facility, while promoting compatible, early successional, sustainable, plant communities.

**Table 1. Electric vs. pipeline rights-of-way concerns (adapted from Appelt and Gartman 2004)**

Electric rights-of-way	Pipeline rights-of-way
Electric right-of-way identification is obvious with lines and tall structures	Pipeline right-of-way identification for underground facilities is by markers, valves, and measuring stations that are easily obstructed by vegetation
Tree height under and to the side of lines, as well as distance to the side, effects safety and reliability	Trees block access and obstruct views
	Root intrusion (integrity of pipeline coating)

## Site Evaluations

Site evaluations are used to assess field conditions for planning purposes. Planning can range from establishing programmatic strategies to setting detailed, tactical operational requirements for individual projects. The data can be applied to establishing or modifying objectives, setting budgets, or determining human, material and equipment resource requirements. Careful preparation is needed to ensure that valuable time and resources are directed toward obtaining useful information, but not wasted collecting unnecessary details. Site evaluations can identify a variety of factors, including potential safety issues, applicable regulations, workload, line or pipe type, voltage and criticality, funding, labor and equipment resource availability, height of the wire from the ground, right-of-way width, land ownership and use, fire risk, vulnerable or protected areas, presence of species of concern, water resources, archeological or cultural sites, topography, soils, and other matters.

Evaluations provide information on site characteristics that exist at the time an assessment is conducted. On dynamic systems such as those associated with IVM, information can quickly become out-of-date; meaning regularly-scheduled updates are required. Schedules should be based on anticipated vegetation growth, line design and construction, predominate species of vegetation, environmental factors, political considerations, budgetary parameters, and operational issues.

## Work Load Evaluations

Workload evaluations are inventories of vegetation that could have a bearing on management objectives. Depending on those objectives and available resources, utilities can either conduct comprehensive or point sample evaluations. Workload assessments can collect data on an array of vegetation characteristics, such as location, height, density, species, size, condition,

tree risk, and clearance from conductors. Evaluations should be conducted considering voltage, conductor sag from ambient temperatures and loading, and the potential influence of wind on line sway.

### **Comprehensive Evaluations**

Comprehensive evaluations account for all vegetation that could potentially affect management objectives. Program level comprehensive evaluations can be made of all target vegetation on a system, while project level evaluations focus on vegetation relevant to a specific job. Comprehensive evaluations provide the advantage of supplying a complete set of data upon which to base management decisions. On the other hand, comprehensive surveys can be impractical for utilities with large numbers of trees, limited human and financial resources, or both.

### **Tree Risk Assessment**

Utilities should conduct assessments to identify trees or tree parts that could fail and threaten their facilities. Large numbers of trees managed by utilities present challenges in tree risk assessment and risk mitigation. Utilities often manage hundreds of trees for each mile (1.6 km) of right-of-way. Given the constraints that resource limitations can impose, it is unreasonable to expect them to monitor every tree that could potentially conflict with utility facilities, identify all those with existing defects that pose an unacceptable level of risk, and proactively remedy the risks they present. Moreover, utilities may be hindered from reducing potential tree risks by property owner opposition. The only plausible course of action is for utilities to manage risk rather than eliminate it (UAA 2009).

Utilities should develop and implement plans for patrolling and inspecting trees that could affect their facilities on a regularly scheduled basis. Standard inspections cover the strike zone, and identify trees with obvious defects among those trees sufficiently tall to hit facilities should they fall. FAC-003 (NERC 2008) requires North American utilities to inspect designated lines annually<sup>3</sup>. Evaluations may be conducted by ground, air, or both. Aerial inspections may be made using light detection and ranging (LiDAR [UAA 2009]). These inspections serve as level 1, or limited visual assessments. Level 1 assessments are conducted from a specified perspective to identify

<sup>3</sup> Lines 200 kV or greater or those designated by a planning coordinator as an element of an interconnection reliability operating limit or by the Western Electricity Coordinating Council (WECC) as an element of a major designated by or as an element of a WECC major critical path (NERC 2008).

trees among a large population that have an imminent or probable likelihood of failure (Smiley, Matheny, and Lilly 2011).

If an initial level 1 assessment identifies a need for greater scrutiny, utilities may specify more detailed inspections or patrols, including a level 2, or basic assessment (Smiley, Matheny, and Lilly 2011). For utility application, a level 2 assessment is a detailed, 360-degree, ground-based visual inspection of the above-ground portion of a tree and its surrounding site to identify structural defects that could affect utility facilities. For the sake of efficiency, level 1 and level 2 assessments can be conducted simultaneously for trees requiring additional scrutiny.

Trees that have been identified as posing an unacceptable level of risk require an abatement plan. Each utility should have a plan and procedure in place for assessing and addressing high-risk trees, which specifies responsibility for prescribing and executing the plan (UAA 2009). When trees that pose an imminent threat to subject transmission facilities are identified, FAC-003 (NERC 2008) requires transmission owners to notify the appropriate switching authority that vegetation is likely to cause an outage at any moment.

Utility arborists interested in more detailed tree risk assessment information are directed to the *Utility Best Management Practices Tree Risk Assessment and Abatement for Fire-prone States and Provinces in the Western Region of North America* (UAA 2009) and the International Society of Arboriculture's *Best Management Practices: Tree Risk Assessment* (Smiley, Matheny, and Lilly 2011).

### **Point Sample Evaluations**

Point sampling offers an alternative for utilities for which comprehensive inventories are impractical. While point sampling is inappropriate for hazard tree mitigation, it is cost effective, and has a proven track record for reasonable accuracy for other types of workload evaluation. It can be used to project the total amount of work from a representative sample. A common method involves dividing a management area (a system or project) into equal-sized units and selecting a random sample sufficient to statistically represent the total work quantity. Random selection eliminates the chance of bias on the part of the investigator. Every plant or plant community of interest within each selected area is inventoried, with collected data used to forecast the total workload.

### **Define Action Thresholds**

Vegetation managers shall define action thresholds that initiate implementation of control methods to achieve management objectives. Action thresholds

are vegetation height, density, location, or condition targets that trigger specific control methods. Since thresholds will vary from utility to utility and project to project, they should be set by a utility vegetation manager. Thresholds should be established in advance to meet objectives and be based on the results of site evaluations. A cycle based on an established period of time is often not an appropriate action threshold, because changes in growth rates, facility use, and land development will affect when vegetation needs to be controlled. Consequently, inspection and maintenance schedules should be based on existing vegetation, expected growth rates, past control methods, and action thresholds.

### **Minimum Clearances**

Minimum clearance requirements may be established by regulatory oversight, or by individual utilities, to achieve management objectives. When establishing minimum clearances for energized conductors, practitioners must at least consider:

- the potential growth of vegetation
- the combined movement of vegetation and conductors in high wind
- sag of conductors due to elevated temperatures or icing

Vegetation managers must be aware that IVM requires a broader, more preventative approach than simply maintaining minimum clearances.

The objective of most IVM programs includes preventing the establishment of incompatible vegetation. Trees that have grown to the point where spark-over or an interruption to service is likely at any moment indicate a breakdown of the IVM program. Action thresholds in IVM are used to determine when incompatible vegetation control is necessary long before it has the potential to violate minimum clearance requirements or cause a service interruption. Using an IVM approach is both economically and environmentally sound because preventing establishment of incompatible vegetation is both less costly and less intrusive than removing or pruning large, established trees.

### **Evaluate and Select Control Methods**

Control methods are the processes through which managers achieve objectives. The most suitable control methods are those that best achieve management objectives at a particular site. Many cases call for a combination of methods. Managers have a variety of controls from which to choose, including manual, mechanical, chemical (herbicide and tree growth regulators), biological, and cultural options. The ultimate objective is to maintain

a desirable plant community with available tools, emphasizing biological and ecological control.

### **Manual Control Methods**

Manual methods are performed by workers using hand-carried tools, such as chain saws, handsaws, pruning shears, and other devices to control incompatible vegetation. The advantage of manual techniques is that they are selective and can be applied where others may not be appropriate. On the other hand, manual techniques can be inefficient, less safe, more intrusive, more expensive, and not as environmentally friendly as other methods.

### **Mechanical Control Methods**

Mechanical controls are done using machines. They are efficient and cost effective, particularly for clearing dense vegetation during initial right-of-way establishment or for reclaiming neglected or overgrown rights-of-way. On the other hand, machines may have a greater negative environmental impact than other control methods. Mechanical control methods can be nonselective; destroy compatible vegetation; disturb sensitive areas such as wetlands, archeologically rich localities or developed areas; establish a seedbed for and dispersal of incompatible plants through ground agitation; and carry seasonal restrictions to prevent harm to nesting wildlife and the environment. Machines can leave behind petroleum products from normal operations, leaks, and spills. Furthermore, heavy equipment use can be risky to use on steep terrain, where it can be unstable and contribute to erosion. To safely achieve desired end results, machinery must be properly maintained and run by skilled equipment operators.



Figure 3. Tractor-mounted mower.

### Machine Types

There are many machines that can be used for IVM. Machines efficiently remove undesirable vegetation on large-scale operations, such as initial right-of-way clearing or reclamation. Examples include:

- *Mowers* (Figures 3 and 4) not only remove and grind brush, but they can also fell small trees. Grinding and scattering improves aesthetics, facilitates debris decomposition, reduces fuel loads, and minimizes fire hazard. Appropriate timing and frequency can affect plant community development.
- *Shears* are whole tree removal devices mounted on heavy equipment. Shears can fell, lift, and stack trees (Figure 5).



Figure 4. Excavator-mounted mower.

- Mechanized *pruning* can be done with all-terrain vehicles equipped with an extendable boom (commonly 75 ft or 25 m) that can extend a circular saw blade (Figure 6). It can also be done with an array of blades slung beneath a helicopter. These devices can prune trees quickly and efficiently. However, it can be difficult to be precise with mechanized pruning equipment. Wounds that result are inappropriate for landscape or high-value trees. Consequently, mechanical pruning equipment use should be limited to rural or remote areas.



Figure 5. Feller-buncher.

- *Aerial lifts* can provide production efficiencies and safety. They can be mounted on a variety of chassis, from trucks to all-terrain vehicles, which can work off road (Figure 7).



Figure 6. Mechanical pruner.

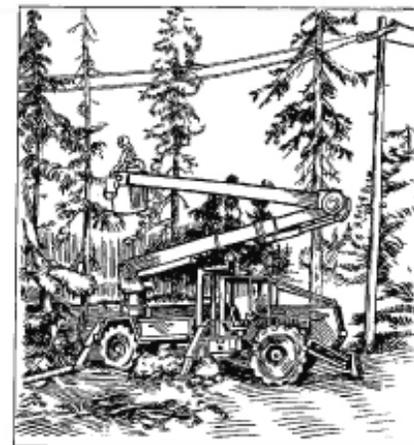


Figure 7. Off-road aerial lift.

### Chemical Control Methods

Chemicals must be applied by qualified applicators according to label directions. Applicators are not only required to read and comply with label instructions, but also all other laws and regulations pertaining to chemical use. Label instructions for personal protective equipment (PPE) are particularly important. Most commonly used herbicide formulations only require long-sleeved shirts, long pants, and shoes and socks. Some formulations require resistant gloves and protective eye wear. Preference should be given to using chemicals that minimize risk to humans and the environment. Emphasis shall also be given to techniques that reduce the amount of material applied over time.

### Tree Growth Regulators

Tree growth regulators (TGRs) are substances designed to reduce growth rates by interfering with natural plant processes. By slowing growth rates of some fast-growing species, TGRs can be helpful where removals or cover type conversion are prohibited or impractical, such as in urban forest applications. TGRs have not been demonstrated to be economically effective on large-scale, rural transmission facilities; however, they have proven useful in specific locations primarily on distribution lines

## Herbicides

Herbicides control plants by interfering with specific botanical biochemical pathways. There are a variety of herbicides, each of which affect plants in different ways and behave variously in the environment, depending on the formulation and characteristics of the active ingredient. While appropriate herbicide use reduces the need for future intervention, misused herbicides can carry environmental risks due to drift, leaching, and volatilization.

When properly applied, herbicides are effective and efficient, while minimizing soil disturbance and enhancing plant and wildlife diversity. Herbicide application can benefit wildlife by improving forage as well as escape and nesting cover. In some instances, noxious weed control is a desirable objective on utility rights-of-way that can be satisfied through herbicide treatment.

Herbicide use can control individual plants that are prone to re-sprout or sucker after removal. When trees that re-sprout or sucker are removed without herbicide treatment, dense thickets develop—impeding access, swelling workloads, increasing costs, blocking lines-of-site, and degrading wildlife habitat (Figure 8). Treating suckering plants allows compatible early successional species to dominate the right-of-way and out-compete incompatible species, ultimately reducing work.

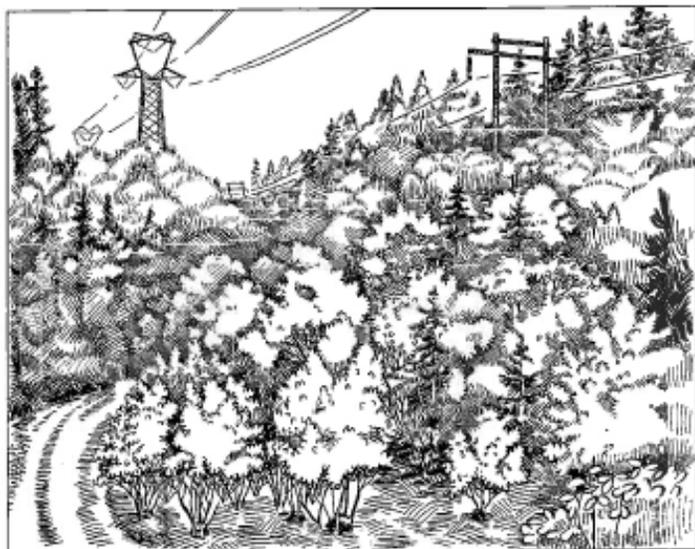


Figure 8. Sprouting from cut stumps.

## Closed Chain of Custody

Traditionally, herbicides have been supplied in concentrated forms in non-returnable containers. This requires handling open containers of concentrate on job sites for mixing and loading. Advances in chemistry and application methods have significantly reduced the volume of herbicide solutions applied. These advances have made it practical to adopt a closed chain of custody concept in which ready-to-use and diluted concentrate formulations are utilized in closed delivery systems (Figure 9)—a practice that further protects the applicator and environment (Goodfellow and Holt 2011).

The closed chain of custody concept includes herbicide shipping, distribution, storage, and mixing, and includes returning empty containers for refilling and reuse. It involves four cycles (Goodfellow and Holt 2011):

- *Container cycle*: supply containers are returned, refilled, and reused
- *Integrity cycle*: closed connections at the transfer points between supply containers, mix tank, and application equipment
- *Documentation cycle*: a container tracking system that establishes an auditable record documenting movement of herbicides and containers
- *Herbicide cycle*: use of customer blends containing the required active ingredient and adjuvants



Figure 9. An interlocking valve connection between fill hose and backpack is preferred.

The Utility Arborist Association (UAA) and ISA have produced best management practices for closed chain of custody for herbicides in the utility vegetation management industry (Goodfellow and Holt 2011). Readers are encouraged to consult these best practices for further information on the subject.

### Selectivity

Herbicides can be selective or nonselective depending on their type. Selective herbicides only control specific kinds of plants when applied according to the label. For example, synthetic auxins are a class of selective herbicides that control broadleaved plants, but do not harm grass species. By contrast, nonselective herbicides work on both broadleaved plants and grasses.

Application techniques can be either selective or nonselective. Selective applications are used against specific plants or pockets of plants. Nonselective techniques target areas rather than individual plants (see *Herbicide Application Methods*). Nonselective use of nonselective herbicides eliminates all plants in the application area. Nonselective use of a selective herbicide controls treated plants that are sensitive to the herbicide, without affecting plants with low sensitivity. Selective use of either would only control targeted vegetation. Selective use is preferable unless target vegetation density is high.

### Herbicide Application Methods

Herbicide application methods are categorized by the quantity of herbicide used, the character of the target, vegetation density, and site parameters. Dyes can be used in the herbicide mix to mark areas that have been treated. Application methods include individual stem, broadcast, and aerial treatments.

### Individual Stem Treatment

Individual stem treatments are selective applications. They include stump, basal, injection, frill (hack and squirt), selective foliar, and side-pruning applications (Table 2). Because they are applied selectively, proper individual

**Table 2. Herbicide treatment methods.**

Individual Stem	Broadcast	Aerial
Stump	High volume foliar	Fixed wing
Basal	Low volume foliar	Rotary wing
Injection	Cut stubble	
Frill	Bare ground	
Selective foliar (low and high volume)		
Sidepruning		

stem applications work well to avoid damage to sensitive or off target plants. However, this treatment is impractical for large areas or for sites dominated by undesirable species.

Stump applications are a common individual stem treatment in which herbicides are applied to the cut stump surface around the cambium and top side of the bark (Figure 10).

Water-based formulations require immediate stump treatment, while vegetable oil-based herbicides can be put on hours, days, or even weeks after cutting.

Injection involves injecting herbicide into a tree, while frill treatments consist of herbicide application into wounds made in the trunk. Injections or frill treatments are especially useful against large incompatible trees to be left standing for wildlife.

Basal applications often use an herbicide in a vegetable oil carrier applied to the base and encircling stems and the root collars (Figure 11). The vegetable oil penetrates the bark, carrying the herbicide into the plant. Although basal applications can be made year round, dormant treatment is often best on deciduous



**Figure 10. Stump treatments are a common individual stem treatment where herbicides are applied to the cut stump surface around the cambium and top side of the bark.**



**Figure 11. Basal application**

plants, when they do not have foliage that can obstruct access to individual stems and are not covered by snow or ice.

Selective foliar applications are done by spraying foliage and shoots of specific target plants (Figure 12). They can be either low or high volume treatments. For low volume applications, comparatively high concentrations of herbicide active ingredient are made in lower volumes of water than would be used with high volume treatment. Foliar applications are only made during the active growing season, normally late spring to early fall.



Figure 12. Selective foliar application.

Chemical side pruning is a technique where non-translocatable herbicides are applied to foliage of specific branches growing toward the electric facility, causing them to defoliate and eventually be shed by the tree.

### **Broadcast Treatment**

Broadcast treatments are nonselective because they control all plants sensitive to a particular herbicide in a treatment area. They can provide a degree of selectivity if used with selective herbicides. Even then, broadcast treatments do not differentiate between compatible and incompatible plants that the herbicide controls. Broadcasting is particularly useful to control large infestations of incompatible vegetation (including invasive species) in rights-of-way or along access roads.

Broadcast techniques include high- or low-volume foliar, cut-stubble, and bare-ground applications. High-volume foliar applications are similar to high-volume selective foliar applications. The difference is that broadcast high-volume foliar treatments target a broad area of incompatible species rather than individual plants or pockets of plants. Low-volume foliar treatments are applied similarly, but with specialized nozzles and thin inversion formulations that minimize volume and spray drift.

Cut-stubble applications are made (using either high- or low-volume broadcast treatments) over areas that have just been mowed. Bare-ground treatments are used for clearing all plant material in a prescribed area, such as in substations or around poles, to protect against fire. Bare-ground applications are usually granular or liquid applications following mechanical removal of vegetation, or used as a pre-emergent in maintaining graveled areas, such as substation enclosures.

### **Aerial Treatments**

Aerial treatments are made by helicopter (rotary wing) or small airplane (fixed wing). Rotary wing aircraft provide the most accuracy, because helicopters can hover, are more maneuverable, and can fly more slowly than airplanes. However, airplanes are less expensive to operate than helicopters. Aerial control methods are nonselective, but may provide a level of selectivity if used with proper herbicides. Aerial applications can be useful in remote or difficult-to-access sites, and can be quick and cost effective, especially if large areas need to be treated. They can also be used where incompatible vegetation dominates a right-of-way or vegetation height limits ground-based treatments. The primary disadvantage of aerial application is that it carries the threat of off-target drift. To limit drift, work must be performed under low-wind conditions with specialized nozzles and formulations.

### **Biological Control Methods**

Biological control is management of vegetation by establishing and conserving compatible, stable plant communities, using plant competition, animals, insects, or pathogens. For example, some plants, including certain grasses, release chemicals that suppress other plant species growing around them. Known as allelopathy, this characteristic can serve as a type of biological control against incompatible species. Promoting wildlife populations is also a form of biological control. Birds, rodents, and other animals can encourage compatible plant communities by eating seeds or shoots of undesirable plants.

A biological control known as cover-type conversion provides a competitive advantage to short-growing, early successional plants, allowing them to thrive and successfully compete against unwanted tree species for sunlight, essential elements, and water. Early successional plant communities are relatively stable and tree-resistant. This control method reduces the amount of work, including herbicide application, with each successive treatment. While it is a type of biological control, cover-type conversion may require the use of one or more other control methods—such as manual, mechanical, herbicide, or cultural—depending on conditions.

Tree-resistant communities are often created in two stages. The first involves nonselectively clearing the right-of-way of undesirable trees using the best applicable control method or combination of methods. The second stage involves developing a tree-resistant plant community using selective techniques, including herbicide applications, that opens an area to sunlight and encourages an often long-dormant seed reservoir of compatible species to germinate. In the long run, this type of biological control is the most desirable method, at least where it can be done effectively.

**Cultural Control Methods**

Cultural methods modify habitat to discourage incompatible vegetation and establish and manage desirable, early successional, and other compatible plant communities. Examples of cultural control include seeding, planting low-growing crops, and establishing pastures, prairies, compatible landscapes, and other managed areas. Fertilization and irrigation are techniques that may be used to help establish low-growing, compatible plant communities.

**Engineering Solutions**

While they are not vegetation control methods, engineering solutions can provide relief from vegetation-power line conflicts. They can include relocating, reconstructing, or burying lines. The disadvantage of engineering solutions is that they are often unaffordable for adjacent property owners or not cost-effective for utilities and their ratepayers. They can also have detrimental environmental impacts if inappropriately applied (Goodfellow 1995).

**Wire-Border Zone Concept**

The wire-border zone concept is a management philosophy that can be applied through cultural control. W.C. Bramble and W.R. Byrnes developed the concept in the mid-1980s out of research begun in 1952 on a transmission right-of-way in the Pennsylvania State Game Lands 33 Research and Demonstration project (Yahner and Hutnick 2004).

The wire zone is the section of a utility transmission right-of-way under the wires and extending on both sides to a specified distance (Bramble, Yahner and Byrnes 1992). The standard way to establish the wire zone is by a set measure (e.g., 10 ft [3 m] or another length) on each side of the wires. Goodfellow (2013) suggests demarcating the wire zone under the wires at a distance equal to 60% of phase-to-phase spacing on the border side of the outside conductors. The wire zone is managed to promote a low-growing plant community dominated by grasses, herbs, and small shrubs (e.g., under 3 ft [1 m] in height at maturity).

The border zone is the remainder of the right-of-way (Figure 13). It is managed to establish small trees and tall shrubs (under 25 ft [7.5 m] in height at maturity). The concept may be modified to accommodate side slope (Figure 14). When properly managed, diverse, tree-resistant plant communities develop in wire and border zones. These plant communities not only protect the electric facility and reduce long-term maintenance, but also enhance wildlife habitat, forest ecology, and aesthetic values.

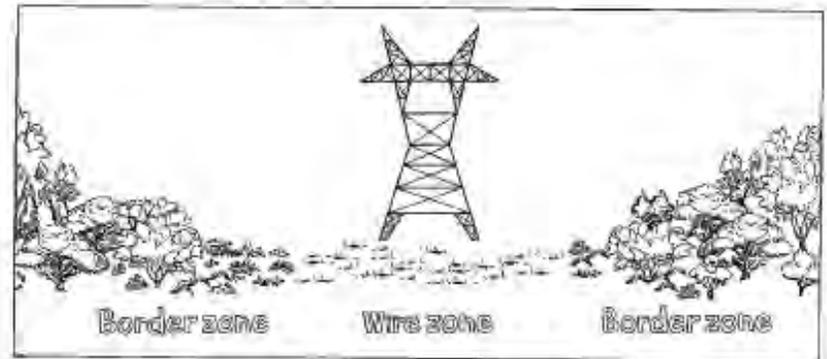


Figure 13. Wire-border zone.

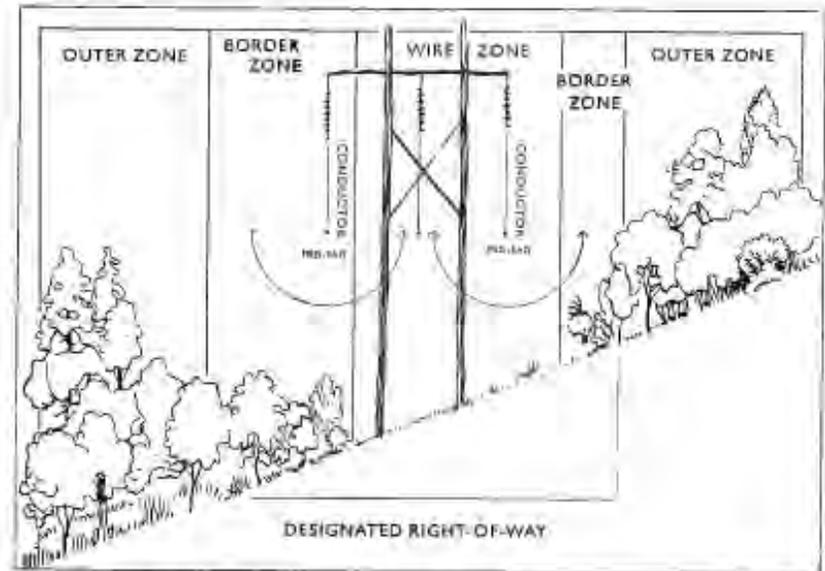


Figure 14. Modification of wire-border zone for side slope.

Although the wire-border zone concept is a best practice in many instances, it is not necessarily universally suitable. For example, standard wire-border zone prescriptions may be unnecessary where lines are high off the ground, such as across low valleys or canyons. One way to accommodate topography changes is to vary zones based on wire height. For example, vertical zones could be established over low valleys, or canyon bottoms, or other areas where conductors are high above the ground (e.g., 100 ft [30 m], or height managers deem appropriate for a specific region), where only a few trees are likely to be tall enough to conflict with the lines (Figure 15). In those instances, trees that potentially interfere with transmission lines can be removed selectively on a case-by-case basis. In areas where the wire is lower, perhaps between 50-100 ft (15-30 m) over the ground, a border zone community could be developed throughout the right-of-way. Where the line is lower, less than 50 ft (15 m) off the ground, for example, managers could apply a full wire-border zone prescription. These modifications have many advantages. Removing fewer trees in valleys and canyons has environmental benefits. Streams often course through the valleys and canyons where lines are likely to be elevated. Leaving timber or border zone communities in valley and canyon bottoms helps shelter this valuable riparian habitat (see *Stream Protection*). It also has economic benefits, as unnecessarily removing trees is a waste of money.

Strict adherence to wire-border zone methodology may also be inappropriate in some fire protection jurisdictions, where border zone establishment is often discouraged out of concern it could provide ladder fuels to the adjacent forest. In these and other cases, management objectives could call for a perennial meadow or prairie plant community throughout the right-of-way. Meadows and

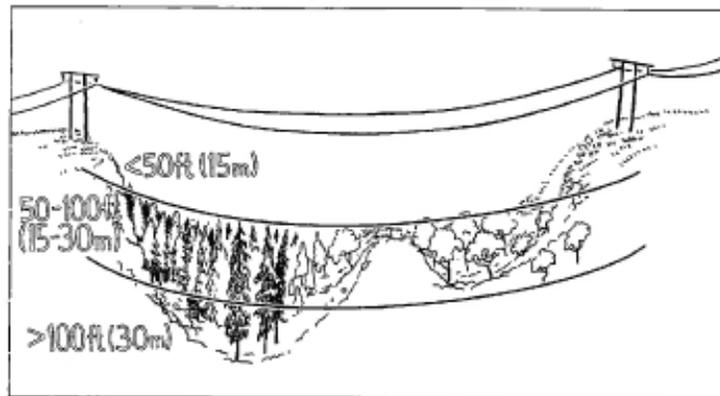


Figure 15. Wire-border zone for elevation of wire off ground.

prairies are legitimate, tree-resistant plant communities that can be established through IVM. The wire-border zone concept is a useful tool in situations where it meets management objectives as determined by utility vegetation managers.

#### Pipe zone-border zone

The wire-border zone concept can be modified to meet IVM objectives on many pipeline rights-of-way (Figure 16). The height and type of vegetation should meet management objectives. Over the pipe zone, native prairie forbs and grasses may be encouraged. Dense, low-growing, gas-sensitive, green cover could also be introduced into the pipe zone if desired. Taller-growing, compatible vegetation can be managed on the edges of the pipeline right-of-way, where it will not interfere with maintenance or pipe integrity. If prairie or other grasses are so tall that they interfere with testing or maintenance, a narrow path directly over the pipe can be mowed, without disturbing the remainder of

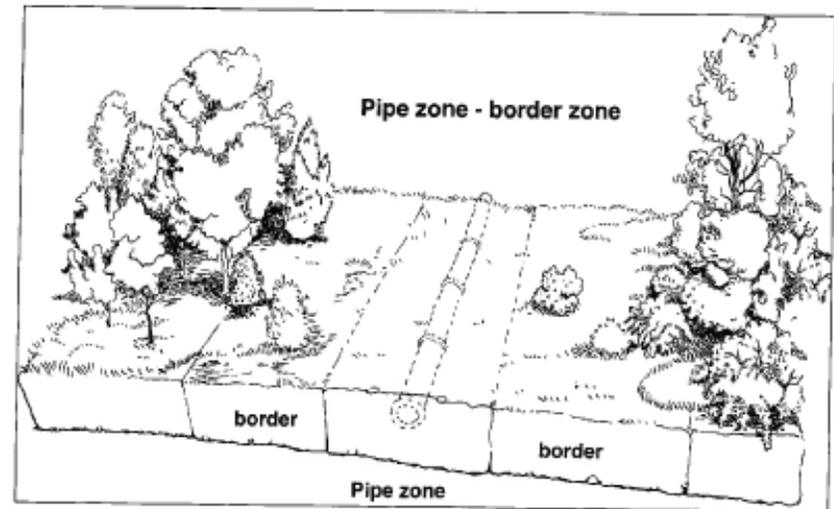


Figure 16. Pipe-border zone.

the right-of-way. This would result in the need for periodic strip-mowing, with low economic and environmental costs and greater benefits for certain wildlife species (Stedman and Brockbank 2012, Johnstone 2012).

#### Implement Control Methods

All laws and regulations governing IVM practices and specifications written by utility vegetation managers must be followed. Integrated vegetation manage-

ment control methods should be implemented on regular work schedules, which are based on established objectives and completed assessments. Work should progress systematically, using control measures determined to be best for varying conditions at specific locations along a right-of-way. Some considerations used in developing schedules include the importance and type of line, vegetation clearances, workloads, growth rate of predominant vegetation, geography, accessibility, and in some cases, time elapsed since the last scheduled work.

### ***Initial Clearing and Reclamation***

Initial clearing of new and reclaiming of neglected rights-of-way requires nonselective techniques, at least in areas dominated by incompatible vegetation. Subsequent projects on those rights-of-way can selectively target incompatible plants, working toward cover-type conversion.

### ***Clearances***

The system operator should establish and document appropriate clearance distances or vegetation heights to be achieved at the time of work. A utility vegetation manager should determine appropriate vegetation conditions, including clearances, throughout the system. Following work, vegetation on the right-of-way should consist of a height and species mix that meets management objectives, including reducing electric and gas safety and service-reliability threats, protecting the environment, and controlling costs. Achieving mandated minimum vegetation clearance distances (such as the minimum vegetation clearance distance [MVCD] in FAC-003 [NERC 2008]), while technically in compliance with regulations, is not in and of itself a best management practice. Nor should it be used as a limitation for managing vegetation on a right-of-way, or evaluating the efficacy of IVM operations. Doing so would allow the establishment of incompatible trees on the right-of-way, which would require periodic topping or severe pruning. In addition to creating unacceptable ongoing risk to facilities, tree maintenance operations can unnecessarily place workers at risk. Managers should bear in mind that clearances are just one objective out of many. The best practice is to remove incompatible trees, encourage compatible vegetation, and ensure—through ongoing monitoring and maintenance—that trees do not become established in these areas or have opportunities to violate minimum clearance requirements.

### ***Debris Disposal***

Debris such as logs and slash that result from IVM operations should be handled in a manner compatible with adjoining land use, terrain, aesthetics, wildlife habitat, and fire risk. Logs may be recoverable for firewood or

timber products, and are often best left for the property owner or as wildlife habitat. Slash can be placed into piles, windrowed along rights-of-way edges, or lopped and scattered. Some jurisdictions may limit the height and length of slash piles. Neither slash nor logs should be placed below the high water mark of streams or other bodies of water, unless requested by a competent authority. Logs should not be moved from the work site if they are likely to be infested with an epidemic-causing disease or insect pest. Where appropriate (e.g., in remote areas or in wildlife management areas), dead standing timber that cannot strike the line or violate mandated minimum clearance requirements can be left as wildlife habitat.

### ***Monitor Treatment and Quality Assurance***

An effective IVM program must have documented processes to evaluate results. Evaluations can involve quality assurance while work is underway and after it is completed. Monitoring for quality assurance should begin shortly after work begins to correct any possible miscommunication or misunderstanding on the part of crew members. Early and consistent observation and evaluation also provides an opportunity to modify the plan, if necessary, in time for a successful outcome.

Utility vegetation management programs should have systems and procedures in place for documenting and verifying that vegetation management work was completed to specifications. Post-control reviews can be comprehensive or based on a statistically representative sample. The results should be compared to objectives, referencing the baseline surveys completed earlier in the planning process. A review of environmental, customer, archeological, or other outcomes may also be necessary, along with property owner and stakeholder surveys. This final review can identify additional work to be completed or highlight opportunities for improved management. The first step in the IVM process of planning and setting objectives then begins again (Figure 2).

### ***Record Keeping***

Records are necessary for quality assurance and future planning. The type of information needed is best determined by the utility vegetation manager. Relevant data commonly includes details on land ownership, the date of pre-notification, and access routes. Records should be digitized and reflect dates of communication, names of stakeholders, and the nature of discussions with them, including any commitments. Records should also be maintained on the type and voltage of line or pipeline capacity, along with work dates,

methods, and location. Where appropriate, records should be maintained on threatened and endangered species and other considerations.

Herbicide records are required by law. Applicators should identify themselves, note the herbicide trade name, the active ingredient, and in the United States, the EPA number. Applicators also need to track the amount of herbicide applied, the location of the application, weather conditions at the time of treatment, how many trees or acres were treated, and other relevant factors.

### 3. IVM Application

#### **Environmental Protection**

##### ***Species of Concern***

Vegetation management should not disturb or harm species of concern (i.e., rare, threatened, endangered, or otherwise protected species). Utility vegetation managers need to obey appropriate guidelines and regulations. Often, simple adjustments can be made to protect sensitive species without compromising desired outcomes.

##### ***Wetlands***

Wetlands should be worked using suitable control methods. If herbicides are to be applied, only those labeled for use over water may be used in wetlands.

##### ***Stream Protection***

To protect streams, incompatible vegetation may need to be selectively pruned or removed, or treated with appropriate herbicide to gradually establish a compatible riparian plant community. Equipment may only use existing or designated stream crossings.

##### ***Buffers***

Stream crossings of right-of-way corridors, surface water supply reservoirs, and drinking water wells and springs need to be protected by buffers. Buffers should retain as much compatible vegetation as possible. If herbicides are needed within the buffer, only those appropriate for the site should be applied. Machine work should be avoided in buffers as equipment may leak or spill petroleum products, causing pollution or erosion. Utility vegetation managers, working along with competent authorities, should determine appropriate distances for particular buffers.

##### ***Archeological or Cultural Sites***

Vegetation management activities should not disturb known archaeological or cultural sites. When necessary, archeological sites should be located and marked, and a plan established to adequately protect them during work. Field data inventories of known sites should be kept on file. Practices that won't damage the sites, such as manual cutting and backpack or aerial herbicide applications, should be considered for use at these locations.

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## 4. Tree Pruning and Removal

Pruning for clearance of trees within pipeline and electric transmission rights-of-way is generally inconsistent with IVM management objectives. However, it may be necessary in rare cases involving legal restrictions. Electric distribution lines are often maintained with pruning as a part of an overall IVM strategy. When pruning is necessary, it should be conducted according to the most current version of the ANSI A300, Part 1: *Tree, Shrub, and Other Plant Management—Standard Practices (Pruning)* and ISA's *Best Management Practices: Utility Pruning of Trees* (Kempter 2004). Structurally unsound or dead trees located off the right-of-way in remote areas may be left for wildlife by reducing them in height so they will no longer strike the electric facility should they fall.

## 5. Summary

Integrated vegetation management—as presented in ANSI A300 Part 7 (ANSI 2012), and when implemented according to principles established by the work of peer-reviewed researchers, long-standing demonstration projects, and successful utility programs—offers a systematic way of planning and implementing a comprehensive, cost-effective, environmentally-sound vegetation management program that meets primary utility objectives and addresses legitimate stakeholder concerns. It consists of six elements:

1. Set Objectives
2. Evaluate the Site
3. Define Action Thresholds
4. Evaluate and Select Control Methods
5. Implement Control Methods
6. Monitor Treatment and Quality Assurance

Managers should select control options to best promote management objectives. Tree-resistant plant communities can be a desirable objective to reduce long-term workloads and costs because, once established, they out-compete incompatible plants. When effectively applied, IVM is a systematic, preventive strategy that results in site-specific treatments to meet management objectives. A sound program includes documented processes to evaluate results, which should involve both monitoring for quality assurance while work is underway and after it is completed. However, the overriding focus should be on environmentally-sound, cost-effective control of species that potentially conflict with the electric facility, while promoting compatible, early successional, sustainable plant communities.

## 6. Glossary

**abatement plan**—a process for reducing vegetation risk.

**action thresholds**—a point at which the level of incompatible plant species, density, height, location, or condition threatens the stated management objectives and requires implementation of a control method(s).

**allelopathy**—the production of chemicals by one plant species that can suppress or kill other species.

**ANSI A300**—the *American National Standard for Tree Care Operations—Tree, Shrub, and Other Woody Plant Management—Standard Practices*. American national arboricultural consensus standard series for tree care operations.

**biological methods**—management of vegetation by establishment and conservation of compatible, stable plant communities using plant competition, allelopathy, animals, insects, or pathogens. Cover-type conversion is a type of biological control.

**best management practices**—in the context of utility vegetation management, a best management practice is the most effective, safe, economical, and environmentally-sound procedure or procedures for maintaining utility rights-of-way. *Best Management Practices* is also the title of a series of booklets produced and published by the International Society of Arboriculture, which serve as companion documents to the ANSI A300 series.

**border zone**—a section of a transmission or pipeline right-of-way that extends from the wire or pipe zone to the right-of-way edge. The border zone is managed to promote a low-growing plant community of forbs, tall shrubs, and low-growing trees below a specified height (e.g., 25 ft or 7.5 m).

**brush**—standing woody stems (live or dead) less than 4 in (10 cm) in diameter at breast height (4.5 ft [1.35 m]).

**bulk transmission**—see *transmission lines*.

**chemical control methods**—management of incompatible vegetation through the use of herbicides or growth regulators.

**closed chain of custody**—an end-to-end process of documented ownership for herbicides, adjuvants, and containers from manufacturer through application, and the return of returnable, reusable containers to a customer blender for refilling and reuse (Goodfellow and Holt 2011).

**compatible vegetation**—vegetation that is desirable or consistent with the intended use of the site. For example, plant species that will never grow sufficiently close to violate minimum clearance distances with electric conductors.

**cover-type conversion**—a type of biological control where a stable, tree-resistant plant community is developed using selective techniques that opens an area to sunlight and encourages desirable plants to out-compete undesirable vegetation in a right-of-way.

**cultural methods**—management of vegetation through alternative use of the right-of-way that precludes growth of incompatible vegetation through establishment of crops, pastures, prairies, parks, successful cover-type conversion, or other managed landscape.

**debris**—material such as slash, logs, or chips left after right-of-way clearing or maintenance operations.

**distribution lines**—high voltage lines generally energized between 4kV and 22kV, but can range from 600v to 35kV. Distribution lines usually serve commercial and residential customers.

**early-successional plant communities**—plant communities that first develop following disturbance. Succession is the replacement of one plant community by another. Cover-type conversion in a utility context inhibits successional progress past an early stage.

**frilling**—a method of herbicide application where tools are used to remove the bark of target woody plants, and herbicide is applied to the wound.

**hack and squirt**—see *frilling*.

**hazard tree**—a tree that has been assessed and found to be likely to fail and cause an unacceptable degree of injury, damage, or disruption. Hazard trees pose a high or extreme risk (Smiley, Matheny and Lilly 2011).

**herbicide**—a pesticide used to kill, slow, or suppress plant growth by interfering with botanical pathways.

**imminent threat**—a vegetation condition that could cause damage or interruption of service to overhead energized facilities or pipelines at any moment.

**incompatible vegetation**—vegetation that is undesirable, unsafe, or interferes with the intended use of the site.

**integrated pest management (IPM)**—an ecologically-based strategy for long-term damage prevention caused by pests using a combination of techniques

**integrated vegetation management (IVM)**—a system of managing plant communities based in IPM, where managers identify compatible and incompatible vegetation, consider action thresholds, evaluate control methods, and select and implement controls to achieve specific objectives. The choice of control methods is based on the anticipated effectiveness, environmental impact, site characteristics, safety, security, economics, and other factors.

**ISA**—International Society of Arboriculture.

**kV**—1000 volts.

**level 1 or limited visual tree risk assessment**—periodic, visual assessment of trees within the strike zone, in order to identify obvious defects that could cause a tree or tree part to fall directly on an overhead high-voltage conductor. Level 1 assessments are conducted from a specified perspective such as foot, vehicle, or aerial patrol to identify a tree or trees among a population that have an imminent or probable likelihood of failure (Smiley, Matheny and Lilly 2011).

**level 2 or basic tree risk assessment**—detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor walk completely around the tree trunk looking at the site, aboveground roots, trunk, and branches (Smiley, Matheny and Lilly 2011).

**line**—a distribution or transmission electric facility including wire, poles, and attachments.

**logs**—woody stems greater than 6 in (15 cm) in diameter that result from tree or large branch removal.

**low-growing plant community**—a population of plants that have a low mature height (e.g., 3 ft [1 m] or less). Examples include grasses, shrubs, forbs, and herbs. Low-growing plant communities can often effectively compete with trees and tall-growing shrubs for sunlight, essential elements, and moisture. Once established, low-growing plant communities are relatively self-sustaining and can be maintained with a minimum of intervention.

**maintenance cycle**—planned length of time that must be maintained between vegetation management activities.

**manual methods**—vegetation cutting or removal using tools carried by hand.

**mechanical methods**—vegetation removal using machines such as mowers, rubber-tire or tracked tractors, or excavators.

**minimum vegetation clearance distance (MVCD)**—a calculated minimum distance stated in feet (or meters) to prevent spark-over, for various altitudes and operating voltages, that is used in the design of transmission facilities. Keeping vegetation from entering this space will prevent transmission outages.

**National Electrical Safety Code® (NESC)**—a standard in the United States covering basic provisions for safeguarding persons from hazards resulting from installation, operation, or maintenance of conductors and equipment in electric supply stations, overhead and underground electric supply, and communication lines. It also contains work rules for construction, maintenance and operations of electric supply, and communication lines and equipment.

**nonselective management**—method of controlling vegetation without regard to whether or not the vegetation is desirable or undesirable.

**pipe zone-border zone**—an adaptation of the wire-border zone concept for pipeline rights-of-way. The pipe zone is an inspection area corresponding to the wire zone and is comprised of low-growing species (Stedman and Brockbank 2012).

**right-of-way**—a corridor of land used for a specific purpose such as an electric transmission or pipe line. (plural: rights-of-way.)

**right-of-way reclamation**—establishing IVM on a right-of-way that has not been managed to the full extent of its easement or ownership rights and intended purpose. Reclamation usually involves initial nonselective control techniques.

**risk**—the combination of the likelihood of an event and the severity of the potential consequences. In the context of IVM, risk is the likelihood of trees, tree parts, or other vegetation falling onto—or growing into—utility facilities, causing damage and/or interrupting utility services, combined with the severity of the potential consequences.

**selective management**—methods used to target undesirable vegetation while retaining desirable vegetation.

**slash**—non-standing debris less than 6 in (15 cm) in diameter left after right-of-way clearing operations.

**spark-over**—a luminous discharge of electricity through a gap between two conductive objects (e.g., a power line and a tree).

**specification**—in the context of IVM, a document containing detailed, measurable plans and requirements needed for an effective vegetation management program. Must be written by a utility vegetation manager.

**stakeholder**—a person or group that has a legitimate interest in a project or organization.

**strike zone**—360-degree area around a tree equal to that tree's height. Constitutes a space upon which a tree could fall if it failed.

**subtransmission lines**—high-voltage lines generally energized between 69 and 161 kV. They can be as low as 35 kV. Subtransmission lines connect bulk transmission substations to industrial customers or distribution substations.

**transmission lines**—high voltage lines that are critical to regional electric reliability. They are generally energized between 230 kV and 765 kV, although some transmission lines are energized as low as 69 kV. Transmission lines connect generation and bulk transmission substations.

**transmission grid**—interconnection of transmission lines used to deliver electricity from power plants to transmission substations or to transfer electricity to other utilities or regions.

**tree growth regulator (TGR)**—chemical that can be applied to trees that slows terminal growth by reducing cell elongation.

**utility vegetation manager**—a professional with the proper experience, education, and training to successfully establish or supervise an integrated vegetation management program.

**wetland**—land where water saturation is the dominant factor determining the nature of soil development and the types of plant and animal communities living in and on the soil.

**windrow**—in the context of utility vegetation management, slash or debris raked or stacked in a row to the side of a right-of-way. The term evokes a row of hay raked up to dry before being rolled or baled.

**wire zone**—section of a utility transmission right-of-way directly under the wires, and extending to a utility specified distance (e.g., 60% of phase spacing; 10 ft or 3 m) on each side. The wire zone is typically managed to sustain a low-growing forb, grass, herb, and shrub plant community.

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## About the Author

**Randall H. Miller** is Director of Vegetation Management at PacifiCorp. He is currently Chair Elect of the TREE Fund Board of Trustees. He has served as President of the Utility Arborist Association, on the Editorial Board of the Journal of *Arboriculture & Urban Forestry*, the International Society of Arboriculture's Certification Test Committee, as Chair of the Edison Electric Institute Vegetation Management Task Force, President of the Oregon Urban and Community Forest Council and as a member of Utah Community Forest Council Board.

He joined PacifiCorp in 1993, and has been their System Forester since 1999. He earned his bachelor's degree in horticulture from the University of Wisconsin-Madison and master's degree in urban forestry from the University of Wisconsin-Stevens Point. He is an ISA Certified Arborist® and an ISA Certified Arborist Utility Specialist™. He received the 2001 ISA Pacific Northwest Chapter Utility Arborist Award, the 2005 ISA R.W. Harris Author's Citation, the 2007 Utility Arborist Association President's Award, the 2007 ISA Pacific Northwest Chapter President's Award, and the 2008 Utah Chapter Distinguished Service Award. He has over 60 arboricultural-related writing credits to date.

## Richland County Council Request of Action

**Subject:**

Fund and/or seek a partnership with SCE&G to plant indigenous flowers and plants along transmission line corridors in Richland County

## Richland County Council Request of Action

**Subject:** Fund and/or seek a partnership with SCE&G to plant indigenous flowers and plants along transmission line corridors in Richland County

### **A. Purpose**

County Council is requested to direct staff to move to fund and/or seek a partnership with SCE&G (South Carolina Energy and Gas) to plant indigenous flowers and plants along transmission line corridors in Richland County.

### **B. Background / Discussion**

On February 10, 2015, Council member Rose brought forth the following motion:

“Move to fund and/or seek a partnership with SCEG to plant indigenous flowers and plants along transmission line corridors in Richland County”

Transmission lines are high capacity power lines that bring electricity from generating stations out into communities in the county. Transmission line corridors are the areas along a transmission line right of way, which is the strip of land purchased by an energy company (SCE&G) from an individual property owner for the company to install the lines and related equipment – see attached illustration.

In some instances, the strip of land along the transmission line corridors can provide an environment that is conducive to native plant and animal life that require the type of habitat maintained beneath the transmission lines.

As such, this request to Council is to direct staff to fund and/or seek a partnership with SCE&G to plant indigenous flowers and plants to the Midlands along the transmission line corridors. This could serve as an effort to beautify the strips of land in and around the corridors of the transmission lines.

### **C. Legislative / Chronological History**

Motion by Mr. Rose – February 10, 2015

### **D. Financial Impact**

The financial impact to the County regarding this motion is unknown at this time. The cost to direct staff to explore a partnership with SCE&G is negligible.

To estimate the cost of planting the flowers and plants along the corridors will require staff to research the types of indigenous plants and flowers that can survive along the corridors, along with any costs associated with planting and maintaining the flowers. Also, there may be a cost associated with obtaining the necessary easements along the corridors to plant the flowers if staff is unable to develop a partnership with SCE&G regarding this request.

If approved, staff can research the aforementioned information and bring it back to Council for their consideration. Staff will need direction regarding the funding source for any of the costs associated with this request.

**E. Alternatives**

1. Approve the request to direct staff to move to fund and/or seek a partnership with SCE&G (South Carolina Energy and Gas) to plant indigenous flowers and plants along transmission line corridors in Richland County.
2. Do not approve the request to direct staff to move to fund and/or seek a partnership with SCE&G (South Carolina Energy and Gas) to plant indigenous flowers and plants along transmission line corridors in Richland County.

**F. Recommendation**

This recommendation was made by Mr. Rose. This is a policy decision for Council.

Recommended by: Seth Rose

Department: County Council

Date: 2/10/15

**G. Reviews**

**Finance**

Reviewed by: Daniel Driggers

Date: 2/17/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

This is a request for Council discretion. Recommendation is based on the request being out of the budget funding cycle and not the merits of the program. It may be appropriate for the request to be considered during the FY16 budget process. Approval would require the identification of a funding source.

**Support Services:**

Reviewed by: John Hixon

Date: 2/19/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

Although this is Council discretion, I recommend denial based on the alternatives to fund or seek partnership with SCE&G until the corridors for improvement are specified, allowing the generation of a scope of work and subsequent resource requirements. SCE&G currently maintains over 3,500 miles of transmission line that ranges from 50 feet to 500 feet in width.

Although I believe the intent to use indigenous plants is to minimize required maintenance, we would be responsible for protecting the investment and aesthetics of the sites and any additional workload, especially during the growing season, will create a major concern with our ability to properly maintain our current assets. Our facilities division currently has six employees maintaining approximately 350 acres of county owned grounds and we are requesting additional resources in the FY16 budget to maintain the new property's being brought into the county. I should also note that we do not have the specialized equipment needed to supply water to sites that are not irrigated so a program such as this may require a capital investment as well.

Perhaps a program such as the DOT uses for the wildflower patches along the interstate system could be more manageable once the breadth of the program is clearly identified, although the preparing of the planting areas each year will require substantial work prior to seeding.

**Public Works:**

Reviewed by: Ismail Ozbek

Date: 2/19/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

Recommend denial due to funding not being identified and scope not being defined. Staff can still be directed to explore partnerships.

**Legal**

Reviewed by: Elizabeth McLean

Date: 2/19/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Policy decision left to Council's discretion. I would note that the ROA requests either funding or having staff explore a partnership with SCE&G. I am unaware how the County would proceed without securing permission from SCE&G, as SCE&G would be the easement holder and not the County. Thus, the County would have no legal right to enter any power line easement area to plant without SCE&G's permission.

**Administration**

Reviewed by: Roxanne Ancheta

Date: February 19, 2015

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: It is recommended that Council direct staff to gather more information on a potential partnership with SCE&G (South Carolina Energy and Gas) to plant indigenous flowers and plants along transmission line corridors in Richland County. Once this information is obtained, including any budgetary impact on the County, the item will be brought back to Council for review and action.



# Richland County Council Request of Action

**Subject:**

Changes to Policy on Requiring Employees to Sign Documents

# Report of Disciplinary Action



EMPLOYEE NAME \_\_\_\_\_ DEPARTMENT NAME \_\_\_\_\_  
 JOB TITLE \_\_\_\_\_ EMPLOYEE # \_\_\_\_\_ DATE \_\_\_\_\_  
 STATE SPECIFIC POLICY, LAW AND/OR INFRACTION THAT HAS OCCURRED.

**DETAILED SUMMARY OF INCIDENT OR DISCIPLINARY ACTION:**

(If more space is needed, please attach all supporting documentation on additional sheets.)

**THE ORIGINAL FORM SHALL BE SENT TO HUMAN RESOURCES TO BE REVIEWED, PROCESSED, AND FILED IN THE EMPLOYEE'S PERSONNEL FILE. THE DEPARTMENT HEAD IS RESPONSIBLE FOR ASSURING THE EMPLOYEE RECEIVES A COPY OF THIS FORM (WHEN THEY SIGN IT) AND RELEVANT ATTACHMENTS.**

**ACTION:**

- COUNSELING NOTICE
- OFFICIAL REPRIMAND
- PROBATION FROM: \_\_\_\_\_ TO: \_\_\_\_\_
- SUSPENSION FROM: \_\_\_\_\_ TO: \_\_\_\_\_
- DEMOTION
- TERMINATION EFFECTIVE DATE: \_\_\_\_\_
- OTHER DISCIPLINARY ACTION: \_\_\_\_\_

**RECOMMENDATION/APPROVAL BY:**

\_\_\_\_\_  
 Supervisor's Signature Date

\_\_\_\_\_  
 Manager's Signature Date

\_\_\_\_\_  
 Department Head's Signature Date

**I HAVE READ THIS REPORT AND UNDERSTAND THE DISCIPLINARY ACTION OUTLINED. IF I AM A REGULAR EMPLOYEE, I UNDERSTAND THAT I HAVE THE RIGHT TO FILE A GRIEVANCE REGARDING THIS ACTION, IF DONE SO WITHIN FOURTEEN DAYS FROM THE DATE OF NOTIFICATION OF THIS ACTION. I UNDERSTAND THAT I MAY CONTACT THE OFFICE OF HUMAN RESOURCES FOR GRIEVANCE INFORMATION, IF NECESSARY. I UNDERSTAND THAT FAILURE TO SIGN FOR RECEIPT OF FORM MAY RESULT IN FURTHER DISCIPLINARY ACTION. MY SIGNATURE DOES NOT INDICATE AGREEMENT WITH THE CONTENTS, BUT ACKNOWLEDGES REVIEW AND RECEIPT OF DISCIPLINARY ACTION.**

**Employee Comments:** (Employee may make additional comments on additional sheets if needed)

\_\_\_\_\_  
 Employee Signature (Date)

\_\_\_\_\_  
 Human Resources Director (Date)  
 (Review)

\_\_\_\_\_  
 County Administrator (Date)  
 (Approval)

**FORWARD TO HRD**

Revised 12/15/04

## Richland County Council Request of Action

**Subject:** Changes to Policy on Requiring Employees to Sign Documents

### **A. Purpose**

County Council is requested to consider Mr. Jackson's motion to review the County's Human Resources policy on requiring employees to sign documents.

### **B. Background / Discussion**

At the September 8, 2015 Council meeting, Mr. Jackson brought forth the following motion:

“Review HR policy on any subjection to violate employees' civil rights. Example signing documents or be fired except memos. There should be other means showing employees receipt of document such as witness noting refusal to sign”

Pursuant to this motion, the Human Resources Department has prepared possible changes to the Richland County Employee Handbook regarding disciplinary actions taken on employees who do not sign official County documents (page 39 of the Employee Handbook) and the process to document that employees were informed and employees were provided documents.

*The current County's policy, located on page 39 of the Richland County Employee Handbook, and which was recommended by outside HR legal counsel, and therefore does not violate an employee's civil rights, is as follows:*

#### **Performance Evaluations**

The County may periodically conduct oral or written evaluations of employees' performance. Employees must sign written evaluations. The employee's signature does not necessarily indicate agreement with the contents of the evaluation, only that he/she has been made aware of it. While favorable performance evaluations may be a factor in determining wage increases, no employee is entitled to a wage increase because he/she receives a favorable evaluation.

#### **Discipline**

As is the case with all organizations, instances arise when an employee must be disciplined. The discipline which may be imposed includes but is not limited to oral reprimand, written warning, probation, suspension without pay, demotion and discharge. In addition, the County may procedurally suspend an employee pending investigation to determine if disciplinary action is appropriate. If the County determines an unpaid suspension is appropriate discipline, exempt employees will be suspended in full-day increments; non-exempt employees will be suspended in partial or full-day increments. In addition, the County may impose a combination of disciplinary measures. THE DISCIPLINE IMPOSED IN ANY PARTICULAR SITUATION IS AT THE SOLE DISCRETION OF THE COUNTY. NOTHING IN ANY OF THE COUNTY'S POLICIES OR BY VIRTUE OF ANY PAST PRACTICE OF THE COUNTY REQUIRES THE COUNTY TO FOLLOW ANY PARTICULAR COURSE OF DISCIPLINE. Supervisors and Department Head must submit terminations to the County Administrator for review. Employees must sign counseling memoranda, policy statements, performance evaluations and other similar documents. The employee's signature does not necessarily indicate agreement with the contents of the document, only that he/she has been notified of the contents of the document.

If an employee refuses to sign the document he/she will be relieved of duty without pay. If he/she does not sign the form by 5:00 p.m. at the end of his next scheduled work-day, he/she will be presumed to have resigned and will be separated from the payroll.

*The optional changes are as follows:*

### **Performance Evaluations Appraisals**

The County may periodically conduct oral or written evaluations of employees' performance. Employees must sign written **evaluations-performance appraisals**. The employee's signature does not necessarily indicate agreement with the contents of the **evaluations-performance appraisals**, only that he/she has been made aware of it. **If an employee refuses to sign their performance appraisal, they may write "I refuse to sign" on the document and sign and date under their written refusal to sign. If the employee refuses to write a note and sign, the supervisor and a witness can sign and document the employee refused.** While favorable performance **evaluations appraisals** may be a factor in determining wage increases, no employee is entitled to a wage increase because he/she receives a favorable **evaluations performance appraisal**.

### **Discipline**

As is the case with all organizations, instances arise when an employee must be disciplined. The discipline which may be imposed includes but is not limited to oral reprimand, written warning, probation, suspension without pay, demotion and discharge. In addition, the County may procedurally suspend an employee pending investigation to determine if disciplinary action is appropriate. If the County determines an unpaid suspension is appropriate discipline, exempt employees will be suspended in full-day increments; non-exempt employees will be suspended in partial or full-day increments. In addition, the County may impose a combination of disciplinary measures. **THE DISCIPLINE IMPOSED IN ANY PARTICULAR SITUATION IS AT THE SOLE DISCRETION OF THE COUNTY. NOTHING IN ANY OF THE COUNTY'S POLICIES OR BY VIRTUE OF ANY PAST PRACTICE OF THE COUNTY REQUIRES THE COUNTY TO FOLLOW ANY PARTICULAR COURSE OF DISCIPLINE.** Supervisors and Department Head must submit terminations to the County Administrator for review. Employees must sign counseling memoranda, policy statements, performance **evaluations appraisals** and other similar documents. The employee's signature does not necessarily indicate agreement with the contents of the document, only that he/she has been notified of the contents of the document. **If an employee refuses to sign the document he/she will be relieved of duty without pay. If he/she does not sign the form by 5:00 p.m. at the end of his next scheduled work-day, he/she will be presumed to have resigned and will be separated from the payroll., they may write "I refuse to sign" on the document and sign and date under their written refusal to sign. If the employee chooses not to sign or document that they refuse to sign, a witness will be called in to certify that the employee reviewed the appropriate document but refused to sign.**

### **C. Legislative / Chronological History**

**September 8, 2015** – Mr. Jackson made the following motion at the Council meeting:  
"Review HR policy on any subjection to violate employees' civil rights. Example signing documents or be fired except memos. There should be other means showing employees receipt of document such as witness noting refusal to sign"

**D. Financial Impact**

There is no financial impact associated with this request.

**E. Alternatives**

1. Consider Mr. Jackson’s motion and approve the suggested changes to the Richland County Employee Handbook as outlined above.
2. Consider Mr. Jackson’s motion and modify the suggested changes to the Richland County Employee Handbook
3. Consider Mr. Jackson’s motion and do not proceed with making any changes to the Richland County Employee Handbook.

**F. Recommendation**

This is a policy decision for Council.

Recommended by: Norman Jackson  
 Department: County Council  
 Date: 9/8/2015

**F. Reviews**

(Please ***SIGN*** your name, ✓ the appropriate box, and support your recommendation before routing. Thank you!)

**Finance**

Reviewed by: Daniel Driggers Date: 10/22/15  
 Recommend Council approval  Recommend Council denial  
 Comments regarding recommendation:

No recommendation because this is a policy decision for Council with no financial impact.

**Human Resources**

Reviewed by: Dwight Hanna Date: 10/23/15  
 Recommend Council approval  Recommend Council denial  
 Comments regarding recommendation: Council's discretion because this is a policy decision. However, it is very important and beneficial to the employee that all employees are clearly informed of serious disciplinary actions and/or potential of termination for not signing a document. In addition, it is important the County is able to provide clear documentation if requested that the employee was informed about actions such as but not limited to disciplinary actions. The current policy was proposed by outside legal counsel. There are two main purposes of the current policy. One is to ensure the employee is made aware of the action and reason for the action. The other main purpose is to document the County has complied with the obligation to inform the employee of the action.

In an effort to address the concerns raised, the County could request departments either use the County's Disciplinary Action Form which includes clear language that the employee's signature does not mean agreement. And in cases where the department does not use the County's Disciplinary Action Form we can request departments use the language from the County's Disciplinary Action Form if employees are requested to sign documents and it is possible disciplinary action will be taken if the employee does not sign.

### **Legal**

Reviewed by: Elizabeth McLean

Date: 11/16/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Please see attached opinion by outside labor counsel. This office agrees with the legal conclusions of outside counsel; however, the application of the policy, if inconsistent, could change that conclusion. The opinion assumes that each employee is told that signing does not mean they agree with the document and they are told that they can attach a separate document reciting their version of events. Again, policies must be applied consistently and the discipline should be proportionate to the offense.

### **Administration**

Reviewed by: Roxanne Ancheta

Date: November 17, 2015

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: This is a policy decision of Council. Any changes recommended by Council should be vetted by appropriate legal counsel. As previously stated, the County's current policy was recommended by outside HR (labor) legal counsel, and does not violate an employee's civil rights.

# Richland County Council Request of Action

**Subject:**

Motion to Increase the Daily Inmate per Diem for Applicable Jurisdictions

## Richland County Council Request of Action

**Subject:** Motion to Increase the Daily Inmate per Diem for Applicable Jurisdictions

### **A. Purpose**

County Council is requested to consider Mr. Malinowski's motion to increase the daily inmate per diem for applicable jurisdictions at the Alvin S. Glenn Detention Center (Detention Center).

### **B. Background / Discussion**

At the November 17, 2015 Council meeting, Mr. Malinowski brought forth the following motion:

“Motion to increase the daily inmate per diem for applicable jurisdictions at the Alvin S. Glenn Detention Center from \$25 / day to \$35 / day beginning July 1, 2016, and increasing \$10 each July 1 thereafter until reaching at least 95% of the current average daily cost per inmate. Once the rate has stabilized to reflect at least 95% of the actual daily costs, the per diem will automatically increase annually by the Consumer Price Index (CPI), as do other applicable Richland County taxes and fees. The current average daily cost per inmate is \$67.72. The current per diem provides only 37% of the daily cost, while increasing the per diem to \$35 in FY 17 would provide 52% of the daily cost. As a comparison, the County currently pays the City of Columbia a daily animal per diem of \$14 for animals housed at the animal shelter.”

The per diem fee for the Detention Center was established by Richland County ordinance 046-03HR for all governmental entities using the detention services of the Alvin S. Glenn Detention Center beginning on July 1, 2003 – see Appendix B of the attached ordinance.

In April 2008, Council approved entering into intergovernmental agreement with all governmental entities using the Detention Center, agreeing to the inmate per diem rate of \$25.

The County's per diem rate has not changed since it was implemented, pursuant to the aforementioned intergovernmental agreements, in 2008.

The per diem rates implemented in other Counties vary. However, the current daily inmate per diem rates for Florence and Greenville Counties are \$56 and \$56.47, respectively.

The County has per diem agreements with Benedict College, the Town of Cayce, the Town of Forest Acres, the Town of Irmo, University of South Carolina, Columbia College, the City of Columbia and the Town of Eastover – see attached agreements.

### **C. Legislative / Chronological History**

Council motion brought forth by Mr. Malinowski at the November 17, 2015 Council meeting.

### **D. Financial Impact**

Based on information gathered by the Detention Center, the potential impact of increasing the inmate per diem rate from \$25 to \$35 is outlined in the table below. Please note that this table is using FY15 revenues as an example.

Arresting Agency	Number Processed	Total Number of Prison Days	Per Diem Rate	Revenue FY 2014-15	Proposed Increase	Possible Increase	Total Proposed Revenue
CPD	5633	19262	\$25.00	\$481,550.00	\$35.00	\$192,620.00	\$674,170.00
Irmo	118	914	\$25.00	\$22,850.00	\$35.00	\$9,140.00	\$31,990.00
USC	510	1585	\$25.00	\$39,625.00	\$35.00	\$15,850.00	\$55,475.00
FAPD	282	891	\$25.00	\$22,275.00	\$35.00	\$8,910.00	\$31,185.00
Cayce	7	315	\$25.00	\$7,875.00	\$35.00	\$3,150.00	\$11,025.00
<b>Totals</b>				<b>\$574,175.00</b>		<b>\$229,670.00</b>	<b>\$803,845.00</b>

**E. Alternatives**

1. Consider the motion and proceed accordingly.
2. Consider the motion and do not increase the inmate per diem rate.

**F. Recommendation**

Policy decision for Council.

Recommended by: Councilmember Malinowski

Department: County Council

Date: November 17, 2015

**G. Reviews**

(Please replace the appropriate box with a ✓ and then support your recommendation in the Comments section before routing on. Thank you!)

Please be specific in your recommendation. While “Council Discretion” may be appropriate at times, it is recommended that Staff provide Council with a professional recommendation of approval or denial, and justification for that recommendation, as often as possible.

**Finance**

Reviewed by: Daniel Driggers

Date: 12/4/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

The request is a policy decision for Council. Based on the ROA, the proposed increase could generate approximately \$229k annually that could further off-set the cost incurred by the County.

**Detention Center**

Reviewed by: Ronaldo Myers

Date: 12/11/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Although the local municipalities pay portion of the daily cost of holding a detainee housed at the ASGDC, the County continues to bear the burden of detainees’ medical expense. Hospital stays are absorbed through the indigent cost funds – paid by Richland County; however, this does not cover outpatient

services some of the municipalities' detainees might incur. For FY 14/15 ASGDC spent in outpatient services was approximately \$300,000.00. Outpatient services cover doctor visit, dialysis and specialty clinics.

I recommended adding all municipalities pay for the outside cost for medical expenses. This could be billed separately.

### **Legal**

Reviewed by: Elizabeth McLean

Date: 12/11/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: The agreements with the municipalities state "the County reserves the right to adjust the amount of the per diem fee at any time during the course of the agreement if, due to the enactment of any state, local, or federal legislation, or for any other reason, the operating costs of the Alvin S. Glenn Detention Center increase."

The decision whether to increase the per diem fees is a policy decision for Council. Such change should be undertaken by ordinance with such ordinance referencing the increase in costs to run the Alvin S. Glenn detention Center.

### **Administration**

Reviewed by: Kevin Bronson

Date: 12/11/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:



City arrestees shall be processed and housed under the rules, regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center. County shall provide the City with a copy of the rules regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center and any subsequent amendments thereto for informational purposes only.

2. Daily Maintenance Fee.

The City agrees to pay a daily maintenance fee of twenty-five and no/100 (\$25.00) dollars per arrestee/per day detained for use of the detention services of the Alvin S. Glenn Detention Center, which fee shall be used by the County to offset any costs associated with such use, which shall include, but not be limited to the costs associated with the housing, feeding, clothing, medical care, and supervision of detainees, arrestees, inmates, and/or prisoners. The daily maintenance fee will not be assessed if the arrestee is released prior to being included in any first head count performed by detention center staff. Assessment of the daily maintenance fee will commence when the arrestee is first included in any head count performed by detention center staff. A day detained is defined as each twenty-four (24) hour period, or any portion thereof, after the initial head count of the arrestee.<sup>1</sup> Upon signature of this agreement all previous per diem fees, claimed to be owed by the City to the County and disputed by the City, will be waived. No fee shall be assessed for those individuals arrested by the Richland County Sheriff's Department, nor for any individual charged with a General Sessions Court offense.

3. Payment of Fee.

The County shall invoice the City for services quarterly. If the County does not receive payment in full within sixty (60) days from the date of the receipt of the invoice, a five (5%) percent late fee shall be assessed.

4. Adjustment of Fee Amount.

The County reserves the right to adjust the amount of the per diem fee at any time during the course of this agreement if, due to the enactment of any state, local, or federal legislation, or for

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<sup>1</sup> Example An arrestee is delivered to the Alvin Glen Detention Center at 2 00 o'clock a m The head count occurs at 5 00 o'clock a m If the arrestee is released at any time prior to 5 00 o'clock a m the next day, the City would pay for one day If the arrestee is released after 5 00 o'clock a m the next day, the City would pay for two days The per day detained would be each twenty-four (24) hour period or portion thereof from 5 00 o'clock a m until 5 00 o'clock a m the next day

any other reason, the operating costs of the Alvin S. Glenn Detention Center increase. The adjustment of the fee shall be solely for the purpose of recouping such operating costs.

Upon any fee adjustment, the County shall notify the City in writing at least ninety (90) days prior to the end of the County's then current fiscal year. Any new fee schedule shall take effect on July 1 of the fiscal year following notification to the City.

5. Term.

This agreement shall be in effect for a period of five (5) years and shall automatically be extended for additional five (5) year terms unless either party gives written notice of intent to terminate at least one (1) year prior to the expiration of each such five (5) year term.

6. Breach.

In the event either party shall fail to comply with its obligations set forth in the Agreement, and such default shall continue for a period of thirty (30) days after written notice of default has been provided by the other party, then the complaining party shall be entitled to pursue any and all remedies provided under South Carolina law and/or terminate this Agreement.

7. Waiver.

The failure of either party to insist upon the strict performance of any provision of this Agreement shall not be deemed to be a waiver of the right to insist upon strict performance of such provisions or of any other provision of this Agreement at any time. Waiver of any breach of this Agreement by either party shall not constitute waiver of subsequent breach.

8. Notice.

Written notice to the City shall be made by placing such notice in the United States Mail, Certified, Return Receipt Requested, postage prepaid and addressed to:

City of Columbia  
Attention: City Manager  
Post Office Box 147  
Columbia, SC 29217

With a copy to:

Columbia City Attorney  
Post Office Box 667  
Columbia, SC 29201

Written notice to the County shall be made by placing such notice in the United States Mail,

Certified, Return Receipt Requested, postage prepaid and addressed to:

Richland County  
Attention: County Administrator  
Post Office Box 192  
Columbia, SC 29202

9. Entire Agreement and Amendment.

This Agreement represents the entire understanding and agreement between the parties hereto and supersedes any and all prior negotiations, discussions, and agreements, whether written or oral, between the parties regarding the same. No amendment or modification to this Agreement or any waiver of any provisions hereof shall be effective unless in writing, signed by both parties.

10. Controlling Law

This Agreement shall be interpreted pursuant to the laws of the State of South Carolina.

11. Severability.

If any provision of this Agreement is determined to be void or unenforceable, all other provisions shall remain in full force and effect.

12. Captions and Headings.

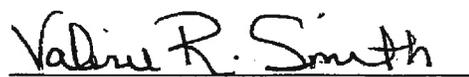
The captions and headings throughout this Agreement are for convenience and reference only, and the words contained therein shall in no way be held or deemed to define, limit, describe, modify, or add to the interpretation, construction, or meaning of any provision of or scope or intent of this Agreement.

IN WITNESS WHEREOF WE THE UNDERSIGNED have this 30 day of June, 2008, set our hand and seal hereon.

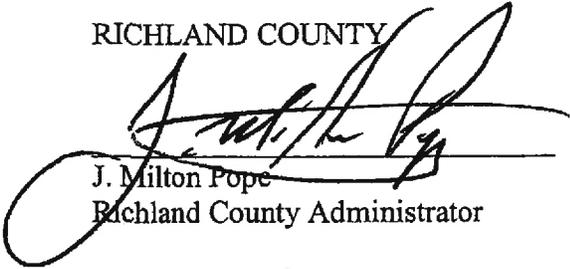
CITY OF COLUMBIA

  
Charles P. Austin, Sr.  
City Manager

WITNESSES:

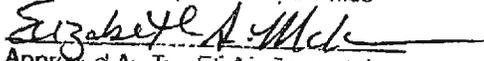
RICHLAND COUNTY

  
J. Milton Pope  
Richland County Administrator

WITNESSES:


Richland County Attorney's Office

  
Approved As To Form Only.  
No Opinion as to Content.

STATE OF SOUTH CAROLINA )  
 )  
COUNTY OF RICHLAND )

**INTERGOVERNMENTAL AGREEMENT  
(Detention Facility Services)**

THIS AGREEMENT entered into this 29 day of May, 2008, is  
by and between the Town of Eastover ("Town"), and Richland County, South Carolina  
("County").

RECITALS

WHEREAS, the County and Town Councils desire to provide adequate detention  
facilities for the detainees and/or sentenced individuals of the County; and

WHEREAS, the parties desire to provide the safest and most cost efficient detention  
system for the citizens of Richland County; and

WHEREAS, the Alvin S. Glenn Detention Center is the County detention facility, and

WHEREAS, Eastover is using and desires to continue using the detention services of the  
Alvin S. Glenn Detention Center, and

WHEREAS, the County incurs considerable costs in providing detention services for the  
detainees and/or sentenced individuals, and

WHEREAS, Richland County ordinance 046-0311R established a fee for all  
governmental entities using the detention services of the Alvin S. Glenn Detention Center  
beginning on July 1, 2005; and

WHEREAS, S.C. Code Ann. Section 4-9-40 provides that "any county may perform any  
of its functions, furnish any of its services within the corporate limits of any municipality,  
situated within the county, by contract with any individual corporation or municipal governing  
body, subject always to the general law and the Constitution of this State regarding such  
matters."; and

WHEREAS, S.C. Code Ann. Section 24-3-30(a) states that "a county or municipality,  
through mutual agreement or contract, may arrange with another county or municipality or a  
local regional correctional facility for the detention of its prisoners.";

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein  
the parties hereto agree as follows:

1. Detention Services

The County agrees to provide detention services at the Alvin S. Glenn Detention Center for all persons arrested and transported to the Alvin S. Glenn Detention Center by the City. All Town arrestees shall be processed and housed under the rules, regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center.

2. Daily Maintenance Fee.

The Town agrees to pay a daily maintenance fee of \$25.00 per arrestee/per day detained, as according to ordinance 046-0311R, for use of the detention services of the Alvin S. Glenn Detention Center, which fee shall be used by the County to offset any costs associated with such use, which shall include, but not be limited to the costs associated with the housing, feeding, clothing, medical care, and supervision of detainees, arrestees, inmates, and/or prisoners. Upon signature of this agreement all previous per diem fees will be waived. No fee shall be assessed for those individuals arrested by the Richland County Sheriff's Department, nor for any individual charged with a General Sessions Offense.

3. Payment of Fee

The County shall mail an invoice for services quarterly. The Town has fifteen (15) days from the invoice date to remit payment to the County. If payment has not been received by the County within the allotted fifteen (15) day period, a 5% late fee shall be assessed.

4. Adjustment of Fee Amount.

The County reserves the right to adjust the amount of the per diem fee at any time during the course of this agreement if, due to the enactment of any state, local, or federal legislation, or for any other reason, the operating costs of the Alvin S. Glenn Detention Center increase. The adjustment of the fee shall be solely for the purpose of recouping such operating costs.

Upon any fee adjustment, the County shall notify the Town in writing of new fees. The new fee schedule shall take effect immediately upon written notification to the Town. For the purposes of this section, notification shall be considered completed upon mailing of the notification

5. Term

This agreement shall be in effect for a period of five (5) years and shall automatically be extended for additional five (5) year terms unless either party gives written notice of intent to terminate at least one (1) year prior to the expiration of each such five (5) year term.

6. Amendment

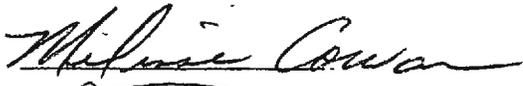
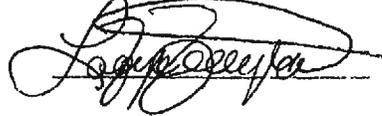
Any modification of this Agreement shall be in writing and signed by both parties

IN WITNESS WHEREOF WE THE UNDERSIGNED have this 28 day of may, 2008, set our hand and seal hereon.

TOWN OF EASTOVER

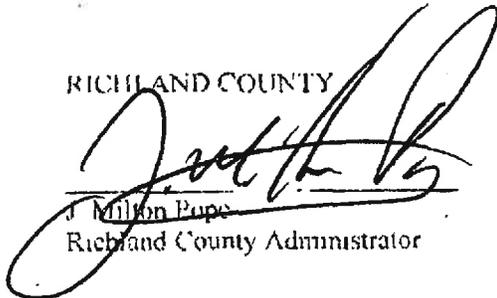
WITNESSES.

LEE FABER   
Mayor

RICHLAND COUNTY

WITNESSES:

  
J. Milton Pope  
Richland County Administrator

  
Marissauellah



1. Detention Services

The County agrees to provide detention services at the Alvin S. Glenn Detention Center for all persons arrested and transported to the Alvin S. Glenn Detention Center by the College. All College arrestees shall be processed and housed under the rules, regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center.

2. Daily Maintenance Fee.

The College agrees to pay a daily maintenance fee of \$25.00 per arrestee/per day detained, as according to ordinance 046-03HR, for use of the detention services of the Alvin S. Glenn Detention Center, which fee shall be used by the County to offset any costs associated with such use, which shall include, but not be limited to the costs associated with the housing, feeding, clothing, medical care, and supervision of detainees, arrestees, inmates, and/or prisoners. Upon signature of this agreement, all previous per diem fees will be waived. No fee shall be assessed for those individuals arrested by the Richland County Sheriff's Department, nor for any individual charged with a General Sessions Offense.

3. Payment of Fee.

The County shall mail an invoice for services quarterly. The College has fifteen (15) days from the invoice date to remit payment to the County. If payment has not been received by the County within the allotted fifteen (15) day period, a 5% late fee shall be assessed.

4. Adjustment of Fee Amount.

The County reserves the right to adjust the amount of the per diem fee at any time during the course of this agreement if, due to the enactment of any state, local, or federal legislation, or for any other reason, the operating costs of the Alvin S. Glenn Detention Center increase. The adjustment of the fee shall be solely for the purpose of recouping such operating costs.

Upon any fee adjustment, the County shall notify the College in writing of the new fees. The new fee schedule shall take effect immediately upon written notification to the College. For

the purposes of this section, notification shall be considered completed upon mailing of the notification.

5. Term.

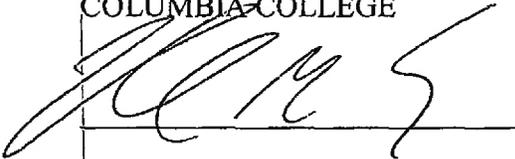
This agreement shall be in effect for a period of five (5) years and shall automatically be extended for additional five (5) year terms unless either party gives written notice of intent to terminate at least one (1) year prior to the expiration of each such five (5) year term.

6. Amendment.

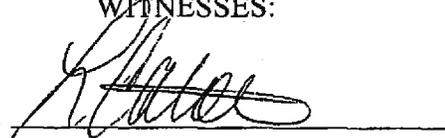
Any modification of this Agreement shall be in writing and signed by both parties.

IN WITNESS WHEREOF WE THE UNDERSIGNED have this 27th day of MAY, 2008, set our hand and seal hereon.

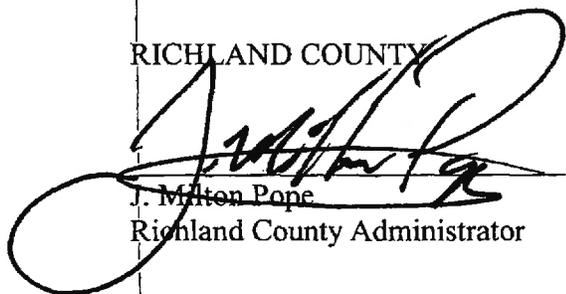
COLUMBIA COLLEGE



WITNESSES:

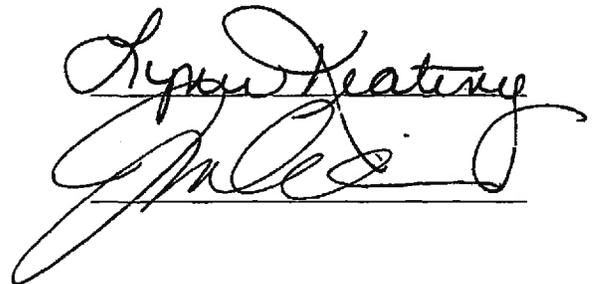


RICHLAND COUNTY



J. Milton Pope  
Richland County Administrator

WITNESSES:





1. Detention Services

The County agrees to provide detention services at the Alvin S. Glenn Detention Center for all persons arrested and transported to the Alvin S. Glenn Detention Center by the University. All University arrestees shall be processed and housed under the rules, regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center.

2. Daily Maintenance Fee.

The University agrees to pay a daily maintenance fee of \$25.00 per arrestee/per day detained, as according to ordinance 046-03HR, for use of the detention services of the Alvin S. Glenn Detention Center, which fee shall be used by the County to offset any costs associated with such use, which shall include, but not be limited to the costs associated with the housing, feeding, clothing, medical care, and supervision of detainees, arrestees, inmates, and/or prisoners. Upon signature of this agreement, all previous per diem fees will be waived. No fee shall be assessed for those individuals arrested by the Richland County Sheriff's Department, nor for any individual charged with a General Sessions Offense.

3. Payment of Fee.

The County shall mail an invoice for services quarterly. The University has fifteen (15) days from the invoice date to remit payment to the County. If payment has not been received by the County within the allotted fifteen (15) day period, a 5% late fee shall be assessed.

4. Adjustment of Fee Amount.

The County reserves the right to adjust the amount of the per diem fee at any time during the course of this agreement if, due to the enactment of any state, local, or federal legislation, or for any other reason, the operating costs of the Alvin S. Glenn Detention Center increase. The adjustment of the fee shall be solely for the purpose of recouping such operating costs.

Upon any fee adjustment, the County shall notify the University in writing of the new fees. The new fee schedule shall take effect immediately upon written notification to the University. For the purposes of this section, notification shall be considered completed upon mailing of the notification.

5. Term.

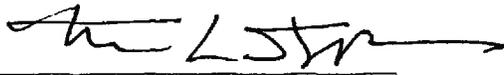
This agreement shall be in effect for a period of five (5) years and shall automatically be extended for additional five (5) year terms unless either party gives written notice of intent to terminate at least one (1) year prior to the expiration of each such five (5) year term.

6. Amendment.

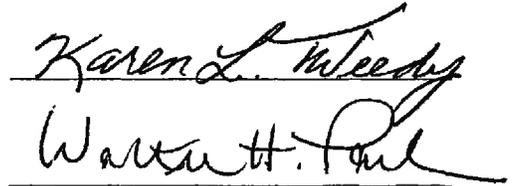
Any modification of this Agreement shall be in writing and signed by both parties.

IN WITNESS WHEREOF WE THE UNDERSIGNED have this 23rd day of  
May \_\_\_\_\_, 2008, set our hand and seal hereon.

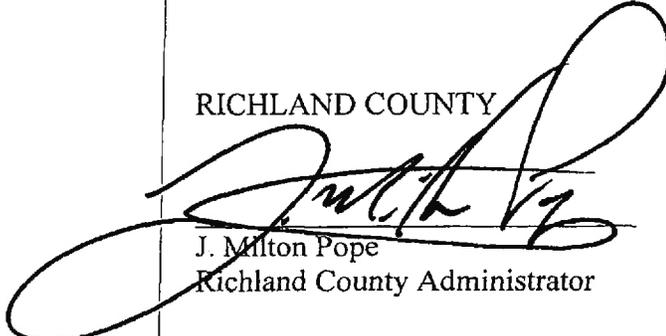
UNIVERSITY OF SOUTH CAROLINA



WITNESSES:

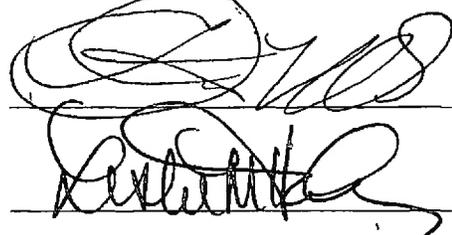


RICHLAND COUNTY



J. Milton Pope  
Richland County Administrator

WITNESSES



STATE OF SOUTH CAROLINA )  
 )  
COUNTY OF RICHLAND )

**INTERGOVERNMENTAL AGREEMENT**  
**(Detention Facility Services)**

THIS AGREEMENT entered into this 10 day of June, 2008, is  
by and between the Town of Irmo ("Town"), and Richland County, South Carolina ("County").

RECITALS

WHEREAS, the County and Town Councils desire to provide adequate detention facilities for the detainees and/or sentenced individuals of the County; and

WHEREAS, the parties desire to provide the safest and most cost efficient detention system for the citizens of Richland County; and

WHEREAS, the Alvin S. Glenn Detention Center is the County detention facility; and

WHEREAS, Irmo is using and desires to continue using the detention services of the Alvin S. Glenn Detention Center; and

WHEREAS, the County incurs considerable costs in providing detention services for the detainees and/or sentenced individuals; and

WHEREAS, Richland County ordinance 046-03HR established a fee for all governmental entities using the detention services of the Alvin S. Glenn Detention Center beginning on July 1, 2003; and

WHEREAS, S.C.Code Ann. Section 4-9-40 provides that "any county may perform any of its functions, furnish any of its services within the corporate limits of any municipality, situated within the county, by contract with any individual, corporation or municipal governing body, subject always to the general law and the Constitution of this State regarding such matters,"; and

WHEREAS, S.C. Code Ann. Section 24-3-30(a) states that "a county or municipality, through mutual agreement or contract, may arrange with another county or municipality or a local regional correctional facility for the detention of its prisoners,";

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. Detention Services

The County agrees to provide detention services at the Alvin S. Glenn Detention Center for all persons arrested and transported to the Alvin S. Glenn Detention Center by the City. All Town arrestees shall be processed and housed under the rules, regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center.

2. Daily Maintenance Fee.

The Town agrees to pay a daily maintenance fee of \$25.00 per arrestee/per day detained, as according to ordinance 046-03HR, for use of the detention services of the Alvin S. Glenn Detention Center, which fee shall be used by the County to offset any costs associated with such use, which shall include, but not be limited to the costs associated with the housing, feeding, clothing, medical care, and supervision of detainees, arrestees, inmates, and/or prisoners. Upon signature of this agreement all previous per diem fees will be waived. No fee shall be assessed for those individuals arrested by the Richland County Sheriff's Department, nor for any individual charged with a General Sessions Offense.

3. Payment of Fee.

The County shall mail an invoice for services quarterly. The Town has fifteen (15) days from the invoice date to remit payment to the County. If payment has not been received by the County within the allotted fifteen (15) day period, a 5% late fee shall be assessed.

4. Adjustment of Fee Amount.

The County reserves the right to adjust the amount of the per diem fee at any time during the course of this agreement if, due to the enactment of any state, local, or federal legislation, or for any other reason, the operating costs of the Alvin S. Glenn Detention Center increase. The adjustment of the fee shall be solely for the purpose of recouping such operating costs.

Upon any fee adjustment, the County shall notify the Town in writing of new fees. The new fee schedule shall take effect immediately upon written notification to the Town. For the

purposes of this section, notification shall be considered completed upon mailing of the notification.

5. Term.

This agreement shall be in effect for a period of five (5) years and shall automatically be extended for additional five (5) year terms unless either party gives written notice of intent to terminate at least one (1) year prior to the expiration of each such five (5) year term.

6. Amendment.

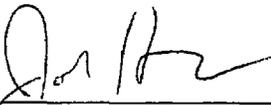
Any modification of this Agreement shall be in writing and signed by both parties.

IN WITNESS WHEREOF WE THE UNDERSIGNED have this 10 day of June, 2008, set our hand and seal hereon.

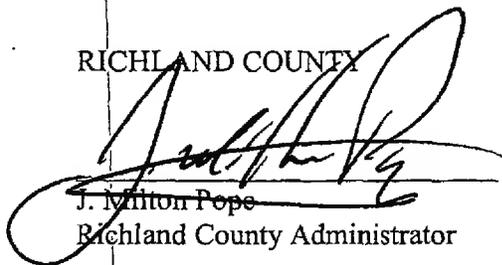
TOWN OF IRMO

  
\_\_\_\_\_  
Mayor

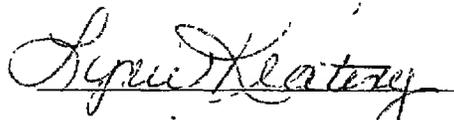
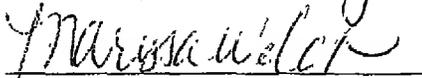
WITNESSES:

  
\_\_\_\_\_  
  
\_\_\_\_\_

RICHLAND COUNTY

  
\_\_\_\_\_  
J. Milton Pope  
Richland County Administrator

WITNESSES:

  
\_\_\_\_\_  
  
\_\_\_\_\_

STATE OF SOUTH CAROLINA )  
 )  
COUNTY OF RICHLAND )

INTERGOVERNMENTAL AGREEMENT  
(Detention Facility Services)

THIS AGREEMENT entered into this 30th day of June 2008, is by and between the City of Forest Acres ("City"), and Richland County, South Carolina ("County").

RECITALS

WHEREAS, the County and City Councils desire to provide adequate detention facilities for the detainees and/or sentenced individuals of the County; and

WHEREAS, the parties desire to provide the safest and most cost efficient detention system for the citizens of Richland County; and

WHEREAS, the Alvin S. Glenn Detention Center is the County detention facility; and

WHEREAS, City of Forest Acres is using and desires to continue using the detention services of the Alvin S. Glenn Detention Center; and

WHEREAS, the County incurs considerable costs in providing detention services for the detainees and/or sentenced individuals; and

WHEREAS, S.C. Code Ann. Section 4-9-40 provides that "any county may perform any of its functions, furnish any of its services within the corporate limits of any municipality, situated within the county, by contract with any individual, corporation or municipal governing body, subject always to the general law and the Constitution of this State regarding such matters,"; and

WHEREAS, S.C. Code Ann. Section 24-3-30(a) states that "a county or municipality, through mutual agreement or contract, may arrange with another county or municipality or a local regional correctional facility for the detention of its prisoners,";

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. Detention Services. The County agrees to provide detention services at the Alvin S. Glenn Detention Center for all persons arrested and transported to the Alvin S. Glenn Detention Center by the City. All City arrestees shall be processed and housed under the rules, regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center. County shall provide the City with a copy of the rules regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center and any subsequent amendments thereto for informational purposes only.

2. Daily Maintenance Fee. The City agrees to pay a daily maintenance fee of twenty-five and no/100 (\$25.00) dollars per arrestee/per day detained for use of the detention services of the Alvin S. Glenn Detention Center, which fee shall be used by the County to offset any costs associated with such use, which shall include, but not be limited to the costs associated with the housing, feeding, clothing, medical care, and supervision of detainees, arrestees, inmates, and/or prisoners. The daily maintenance fee will not be assessed if the arrestee is released prior to being included in any first head count performed by detention center staff. Assessment of the daily maintenance fee will commence when the arrestee is first included in any head count performed by detention center staff. A day detained is defined as each twenty-four (24) hour period, or any portion thereof, after the initial head count of the arrestee.<sup>1(1)</sup> Upon signature of this agreement all previous per diem fees, claimed to be owed by the City to the County and disputed by the City, will be waived. No fee shall be assessed for those individuals arrested by the Richland County Sheriff's Department, nor for any individual charged with a General Sessions Court offense.

3. Payment of Fee. The County shall invoice the City for services quarterly. If the County does not receive payment in full within sixty (60) days from the date of the receipt of the invoice, a five (5%) percent late fee shall be assessed.

4. Adjustment of Fee Amount. The County reserves the right to adjust the amount of the per diem fee at any time during the course of this agreement if, due to the enactment of any state, local, or federal legislation, or for any other reason, the operating costs of the Alvin S. Glenn Detention Center increase. The adjustment of the fees shall be solely for the purpose of recouping such operating costs.

Upon any fee adjustment, the County shall notify the City in writing at least ninety (90) days prior to the end of the County's then current fiscal year. Any new fee schedule shall take effect on July 1 of the fiscal year following notification to the City.

5. Term. This agreement shall be in effect for a period of five (5) years and shall automatically be extended for additional five (5) year terms unless either party gives written notice of intent to terminate at least one (1) year prior to the expiration of each such five (5) year term.

6. Breach. In the event either party shall fail to comply with its obligations set forth

<sup>1(1)</sup> Example: An arrestee is delivered to the Alvin Glen Detention Center at 2:00 o'clock a.m. The head count occurs at 5:00 o'clock a.m. If the arrestee is released at any time prior to 5:00 o'clock a.m. the next day, the City would pay for one day. If the arrestee is released after 5:00 o'clock a.m. the next day, the City would pay for two days. The per day detained would be each twenty-four (24) hour period or portion thereof from 5:00 o'clock a.m. until 5:00 o'clock a.m. the next day.

in the Agreement, and such default shall continue for a period of thirty (30) days after written notice of default has been provided by the other party, then the complaining party shall be entitled to pursue any and all remedies provided under South Carolina law and/or terminate this Agreement.

7. Waiver. The failure of either party to insist upon the strict performance of any provision of this Agreement shall not be deemed to be a waiver of the right to insist upon strict performance of such provisions or of any other provision of this Agreement at any time. Waiver of any breach of this Agreement by either party shall not constitute waiver of subsequent breach.

8. Notice. Written notice to the City shall be made by placing such notice in the United States Mail, Certified, Return Receipt Requested, postage prepaid and addressed to:

City of Forest Acres  
Attention: City Administrator  
5205 N Trenholm Rd  
Forest Acres, SC 29206

With a copy to:  
Lee Holloway  
City Attorney  
1712 St. Julian Place; Suite 101  
Columbia, SC 29204

Written notice to the County shall be made by placing such notice in the United States Mail, Certified, Return Receipt Requested, postage prepaid and addressed to:

Richland County  
Attention: County Administrator  
Post Office Box 192  
Columbia, SC 29202

9. Entire Agreement and Amendment. This Agreement represents the entire understanding and agreement between the parties hereto and supersedes any and all prior negotiations, discussions, and agreements, whether written or oral, between the parties regarding the same. No amendment or modification to this Agreement or any waiver of any provisions hereof shall be effective unless in writing, signed by both parties.

10. Controlling Law

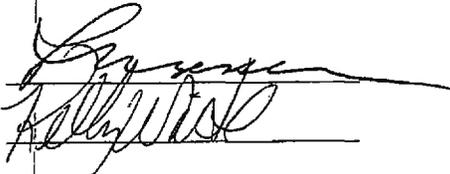
This Agreement shall be interpreted pursuant to the laws of the State of South Carolina.

11. Severability. If any provision of this Agreement is determined to be void or unenforceable, all other provisions shall remain in full force and effect.

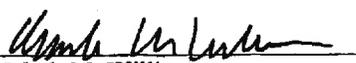
12. Captions and Headings. The captions and headings throughout this Agreement are for convenience and reference only, and the words contained therein shall in no way be held or deemed to define, limit, describe, modify, or add to the interpretation, construction, or meaning of any provision of or scope or intent of this Agreement.

IN WITNESS WHEREOF WE THE UNDERSIGNED have this 30<sup>th</sup> day of June, 2008, set our hand and seal hereon.

WITNESSES:

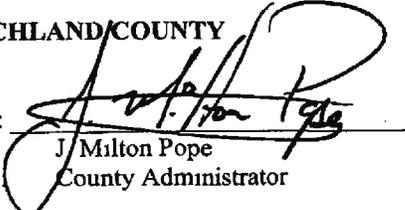
  
\_\_\_\_\_

CITY OF FOREST ACRES

BY:   
Mark M. Williams  
ITS. City Administrator

  
\_\_\_\_\_

RICHLAND COUNTY

BY:   
J. Milton Pope  
ITS. County Administrator

STATE OF SOUTH CAROLINA )  
COUNTY OF RICHLAND )  
CITY OF CAYCE )

**INTERGOVERNMENTAL  
AGREEMENT  
Detention Facility Services**

THIS AGREEMENT entered into this 28<sup>th</sup> of August, 2008, is by and between the City of Cayce ("City"), and Richland County, South Carolina ("County").

RECITALS

WHEREAS, the County and the City Councils desire to provide adequate detention facilities for the detainees and/or sentenced individuals of the County; and

WHEREAS, the parties desire to provide the safest and most cost efficient detention system for the citizens of Richland County; and

WHEREAS, the Alvin S Glenn Detention Center is the County detention facility, and

WHEREAS, the City of Cayce desires to use the detention services of the Alvin S. Glenn Detention Center; and

WHEREAS, the County incurs considerable costs in providing detention services for the detainees and/or sentenced individuals; and

WHEREAS, Richland County ordinance 046-3-03HR established a fee for all governmental entities using the detention services of the Alvin S. Glenn Detention Center beginning on July 1, 2003; and

WHEREAS, S.C. Code Ann. Section 4-9-40 provides that "any county may perform any of its functions, furnish any of its services within the corporate limits of any municipality, situated within the county, by contract with any individual, corporation or municipal governing body, subject always to the general law and the Constitution of this State regarding such matters,"; and

WHEREAS, S.C. Code Ann. Section 24-3-30(a) states that "a county or municipality, through mutual agreement or contract, may arrange with another county or municipality or a local regional correctional facility for the detention of its prisoners,";

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. Detention Services.

The County agrees to provide detention services at the Alvin S Glenn Detention Center for all persons arrested and transported to the Alvin S. Glenn Detention Center by the City. All City arrestees shall be processed and housed under the rules, regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center.

2. Daily Maintenance Fee.

The City agrees to pay a daily maintenance fee of \$25.00 per arrestee/per day detained, as according to ordinance 046-03HR, for use of the detention services of the Alvin S. Glenn Detention Center, which fee shall be used by the County to offset any costs associated with such use, which shall include, but not be limited to the costs associated with the housing, feeding, clothing, medical care, and supervision of detainees, arrestees, inmates, and/or prisoners. Upon signature of this agreement all previous per diem fees will be waived. No fee shall be assessed for those individuals arrested by the Richland County Sheriff's Department, nor for any individuals arrested by the Richland County Sheriff's Department, nor for any individual charged with a General Sessions Offense.

3. Payment of Fee.

The County shall mail an invoice for services quarterly. The City has fifteen (15) days from the invoice date to remit payment to the County. If payment has not been received by the County within the allotted fifteen (15) day period; a 5% late fee shall be assessed.

4. Adjustment of Fee Amount.

The County reserves the right to adjust the amount of the per diem fee at any time during the course of this agreement if, due to the enactment of any state, local, or

federal legislation, or for any other reason, the operating costs of the Alvin S. Glenn Detention Center increase. The adjustment of the fee shall be solely for the purpose of recouping such operating costs.

Upon any fee adjustment, the County shall notify the City in writing of new fees. The new fee schedule shall take effect immediately upon written notification to the City. For the purposes of this section, notification shall be considered completed upon mailing of the notification.

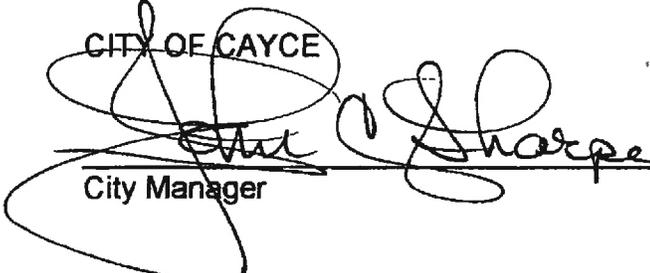
5. Term.

This agreement shall be in effect for a period of five (5) years and shall automatically be extended for additional five (5) year terms unless either party gives written notice of intent to terminate at least one (1) year prior to the expiration of each such five (5) year terms.

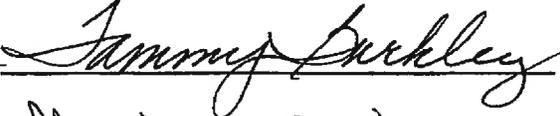
6. Amendment.

Any modification of this Agreement shall be in writing and signed by both parties IN WITNESS WHEREOF, WE THE UNDERSIGNED have this 28<sup>th</sup> day of August, 2008, set our hand and seal hereon.

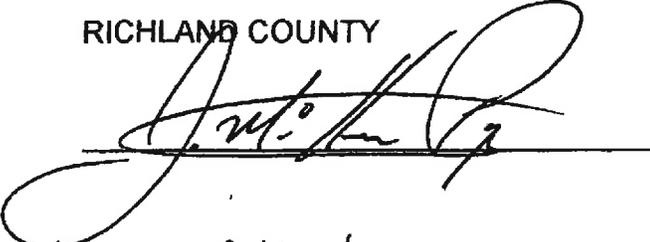
CITY OF CAYCE

  
\_\_\_\_\_  
City Manager

WITNESSES.

  
\_\_\_\_\_  
  
\_\_\_\_\_

RICHLAND COUNTY

  
\_\_\_\_\_  
\* See Attachment

WITNESSES:

  
\_\_\_\_\_  
  
\_\_\_\_\_

**\* Attachment**

**Final approval is contingent upon action by Richland County Council**

**This Agreement only applies to individuals arrested in the Richland County portion of the City of Cayce.**

A handwritten signature in black ink, appearing to be 'J. Williams', is written over the text 'Richland County' in the paragraph above.

STATE OF SOUTH CAROLINA )  
 )  
COUNTY OF RICHLAND )

**INTERGOVERNMENTAL AGREEMENT  
(Detention Facility Services)**

THIS AGREEMENT entered into this 16 day of June, 2008, is by and between Benedict ("College") and Richland County, South Carolina ("County").

RECITALS

WHEREAS, the County and the College desire to provide adequate detention facilities for the detainees and/or sentenced individuals of the County; and

WHEREAS, the parties desire to provide the safest and most cost efficient detention system for the citizens of Richland County; and

WHEREAS, the Alvin S. Glenn Detention Center is the County detention facility; and

WHEREAS, Benedict College is using and desires to continue using the detention services of the Alvin S. Glenn Detention Center; and

WHEREAS, the County incurs considerable costs in providing detention services for the detainees and/or sentenced individuals; and

WHEREAS, Richland County established a fee for all governmental entities using the detention services of the Alvin S. Glenn Detention Center beginning on July 1, 2003; and

WHEREAS, S.C.Code Ann. Section 4-9-40 provides that "any county may perform any of its functions, furnish any of its services within the corporate limits of any municipality, situated within the county, by contract with any individual, corporation or municipal governing body, subject always to the general law and the Constitution of this State regarding such matters,"; and

WHEREAS, S.C. Code Ann. Section 24-3-30(a) states that "a county or municipality, through mutual agreement or contract, may arrange with another county or municipality or a local regional correctional facility for the detention of its prisoners,";

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. Detention Services

The County agrees to provide detention services at the Alvin S. Glenn Detention Center for all persons arrested and transported to the Alvin S. Glenn Detention Center by the College. All College arrestees shall be processed and housed under the rules, regulations, policies, and procedures of Richland County and the Alvin S. Glenn Detention Center.

2. Daily Maintenance Fee.

The College agrees to pay a daily maintenance fee of \$25.00 per arrestee/per day detained; as according to ordinance 046-03HR, for use of the detention services of the Alvin S. Glenn Detention Center, which fee shall be used by the County to offset any costs associated with such use, which shall include, but not be limited to the costs associated with the housing, feeding, clothing, medical care, and supervision of detainees, arrestees, inmates, and/or prisoners. Upon signature of this agreement, all previous per diem fees will be waived. No fee shall be assessed for those individuals arrested by the Richland County Sheriff's Department, nor for any individual charged with a General Sessions Offense.

3. Payment of Fee.

The County shall mail an invoice for services quarterly. The College has fifteen (15) days from the invoice date to remit payment to the County. If payment has not been received by the County within the allotted fifteen (15) day period, a 5% late fee shall be assessed.

4. Adjustment of Fee Amount.

The County reserves the right to adjust the amount of the per diem fee at any time during the course of this agreement if, due to the enactment of any state, local, or federal legislation, or for any other reason, the operating costs of the Alvin S. Glenn Detention Center increase. The adjustment of the fee shall be solely for the purpose of recouping such operating costs.

Upon any fee adjustment, the County shall notify the College in writing of the new fees. The new fee schedule shall take effect immediately upon written notification to the College. For the purposes of this section, notification shall be considered completed upon mailing of the notification.

5. Term.

This agreement shall be in effect for a period of five (5) years and shall automatically be extended for additional five (5) year terms unless either party gives written notice of intent to terminate at least one (1) year prior to the expiration of each such five (5) year term.

6. Amendment.

Any modification of this Agreement shall be in writing and signed by both parties.

IN WITNESS WHEREOF WE THE UNDERSIGNED have this 16 day of June, 2008, set our hand and seal hereon.

BENEDICT COLLEGE

WITNESSES:

*Chief Raymond M. Beynon*

*Gregory Bellay*  
*Germa Elders*

RICHLAND COUNTY

WITNESSES:

*J. Milton Pope*  
J. Milton Pope  
Richland County Administrator

*Gregory Bellay*  
*Germa Elders*

# Richland County Government

County Administration Building  
2020 Hampton Street  
P.O. Box 192  
Columbia, SC 29202



Phone: (803) 576-2050  
Fax: (803) 576-2137  
TDD: (803) 748-4999

## Office of the County Administrator



May 8, 2008

Mayor Leroy Faber  
Town of Eastover  
P.O. Box 3  
Eastover, SC 29044

Dear Mayor Faber:

On June 5, 2003, Richland County Council approved a Per Diem Charge for agencies that house detainees at the Alvin S. Glenn Detention Center.

Beginning July 1, 2008, Richland County will re-authorize the Per Diem Fee to a Jail Maintenance Fee. The Jail Maintenance Fee will be assessed at a rate of \$25.00 per inmate, per day for all non-general sessions offenses up to 90 days. (this excludes arrests made by the Richland County Sheriff's Department)

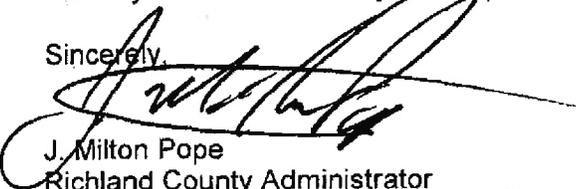
Furthermore, all users of the Alvin S. Glenn Detention Center must sign and return the attached Memorandum of Agreement prior to July 1, 2008.

A meeting will be held on May 14, 2008 from 8:00 to 9:00 AM in the 4<sup>th</sup> Floor Conference Room to answer any questions.

Richland County will invoice to your agency quarterly with a 30-day payable notice. The invoice will include the detainees name, booking date and number of days incarcerated.

Thank you in advance for your cooperation and I look forward to meeting with you next week.

Sincerely,

  
J. Milton Pope  
Richland County Administrator  
popem@rcgov.us  
<http://www.richlandonline.com>  
Enclosure



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: Don Purcell

Home Address: 216 Pebble Creek Rd. Columbia, SC 29223

Telephone: (home) (803) 736-0628 (work) (803) 261-9085

Office Address: 105 Burmaster Dr., Columbia, SC 29229

Email Address: svagroup@aol.com

Educational Background: BBA - University of Texas

Professional Background: President - Spring Valley Auto Group

Male  Female  Age: 18-25  26-50  Over 50

Name of Committee in which interested: Airport Commission

Reason for interest: Pilot & interested in promoting aviation and the economic benefits to the county

Your characteristics/qualifications, which would be an asset to Committee, Board or Commission:

Pilot, President-SC Aviation Association, current airport commission member, prior Chairman (2 x's), Vice Chairman & Operations committee chair. Past Chair Chamber.

Presently serve on any County Committee, Board or Commission? Airport Commission

Any other information you wish to give? \_\_\_\_\_

Recommended by Council Member(s): \_\_\_\_\_

Hours willing to commit each month: 20

**CONFLICT OF INTEREST POLICY**

It is the policy of Richland County to require disclosure of any personal or financial interest that may be influenced by decisions of the Committee, Board or Commission for which any citizen applies for membership.

Such conflict of interest does not preclude service but shall be disclosed before appointment. The Clerk of Council shall be notified of any change on an annual basis and members of all Committees, Boards or Commissions shall be required to abstain from voting or influencing through discussion or debate, or any other way, decisions of the Committee, Board or Commission affecting those personal and financial interests.

All statements so filed shall be signed and verified by the filer. The verification shall state that the filer has used all reasonable diligence in its preparation, and that to the best of his or her knowledge, it is true and complete.

Any person who willfully files a false or incomplete statement of disclosure or no change of condition, or who willfully fails to make any filing required by this article, shall be subject to such discipline, including censure and disqualification from the Committee, Board or Commission, by majority vote of the council.

*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

Yes \_\_\_\_\_ No  \_\_\_\_\_

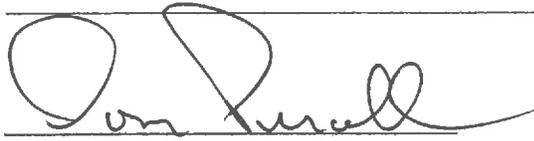
**STATEMENT OF FINANCIAL OR PERSONAL INTERESTS**

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes \_\_\_\_\_ No  \_\_\_\_\_

If so, describe: \_\_\_\_\_

\_\_\_\_\_

  
Applicant's Signature

11/9/15  
Date

**Return to:**  
**Clerk of Council, Post Office Box 192, Columbia, SC 29202.**  
**For information, call 576-2060.**

**One form must be submitted for each Committee, Board or Commission on which you wish to serve.**

**Applications are current for one year.**

Staff Use Only			
Date Received: _____	Received by: _____		
Date Sent to Council: _____			
Status of Application:	<input type="checkbox"/> Approved	<input type="checkbox"/> Denied	<input type="checkbox"/> On file

2



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: Stuart Hope  
Home Address: 180 Wateree Avenue Columbia SC 29205  
Telephone: (home) (803) 929-2600 (work) (803) 771-7766  
Office Address: 2901 Millwood Ave Columbia SC 29205  
Email Address: shope@hopeaviation.com  
Educational Background: BS Insurance USC  
Professional Background: 37 years Aviation Insurance Broker  
Male  Female  Age: 18-25  26-50  Over 50   
Name of Committee in which interested: Richland County Airport Commission  
Reason for interest: Seeking 2nd term

Your characteristics/qualifications, which would be an asset to Committee, Board or Commission:

I'm a pilot and learned to fly at Owens Field in the 70's. My career of 37 years has been an aviation insurance broker, I am an airport "neighbor" and have served 1 term

Presently serve on any County Committee, Board or Commission? No

Any other information you wish to give? \_\_\_\_\_

Recommended by Council Member(s): Gregory Pierce

Hours willing to commit each month: What is required

**CONFLICT OF INTEREST POLICY**

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All statements so filed shall be signed and verified by the filer. The verification shall state that the filer has used all reasonable diligence in its preparation, and that to the best of his or her knowledge, it is true and complete.

Any person who willfully files a false or incomplete statement of disclosure or no change of condition, or who willfully fails to make any filing required by this article, shall be subject to such discipline, including censure and disqualification from the Committee, Board or Commission, by majority vote of the council.

*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

Yes \_\_\_\_\_ No ✓

#### STATEMENT OF FINANCIAL OR PERSONAL INTERESTS

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes ✓ No ✓

If so, describe: I AM AN AVIATION INSURANCE BROKER. I HAVE WRITTEN THE AIRPORT INSURANCE FOR 20+ YEARS SO NO REAL CONFLICT. ~~IT~~ I CONSIDER MY SERVING AS AN ASSET.

  
Applicant's Signature

7-27-15  
Date

Return to:  
Clerk of Council, Post Office Box 192, Columbia, SC 29202.  
For information, call 576-2060.

One form must be submitted for each Committee, Board or Commission on which you wish to serve.

Applications are current for one year.

Staff Use Only	
Date Received: _____	Received by: _____
Date Sent to Council: _____	
Status of Application:	<input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> On file



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: Cecil D. Hannibal  
Home Address: 417 Juniper St. Columbia SC 29203  
Telephone: (home) (803) 331-5497 (work) (803) 734-2704  
Office Address: 1201 Main Street, Suite 250 Columbia SC 29201  
Email Address: cdhannibal@columbiasc.net  
Educational Background: Western Michigan Univ. and South Carolina State Univ.  
Professional Background: Commercial Pilot-Banker-Economic Developer COC  
Male  Female  Age: 18-25  26-50  Over 50   
Name of Committee in which interested: Richland County Airport Commission  
Reason for interest: I am interested in serving the community. Also, I have experience and a clear understanding of how important this airport is to our region and county.  
Your characteristics/qualifications, which would be an asset to Committee, Board or Commission:  
I bring to this commission leadership, a network in the aviation community and a clear understanding of the economy in this region. Also, I am an aviator in this community.  
Presently serve on any County Committee, Board or Commission? No  
Any other information you wish to give? \_\_\_\_\_  
Recommended by Council Member(s): Kelvin Washington-Damon Jeter  
Hours willing to commit each month: Whatever is required of my time.

**CONFLICT OF INTEREST POLICY**

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*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

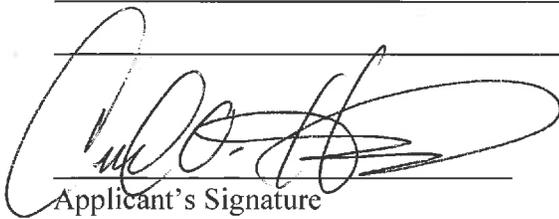
Yes \_\_\_\_\_ No <sup>x</sup> \_\_\_\_\_

**STATEMENT OF FINANCIAL OR PERSONAL INTERESTS**

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes \_\_\_\_\_ No <sup>x</sup> \_\_\_\_\_

If so, describe: \_\_\_\_\_

  
Applicant's Signature

11/10/15  
Date

**Return to:**  
**Clerk of Council, Post Office Box 192, Columbia, SC 29202.**  
**For information, call 576-2060.**

**One form must be submitted for each Committee, Board or Commission on which you wish to serve.**

**Applications are current for one year.**

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Date Received: _____	Received by: _____
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Status of Application: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> On file	



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: Tally Parham Casey

Home Address: 27 Woodhill Circle, Columbia SC 29209

Telephone: (home) (803) 776-4611 (work) (803) 254-6542

Office Address: Wyche, P.A. 801 Gervais St., Suite B, Columbia, SC 29201

Email Address: tcasey@wyche.com

Educational Background: Princeton University (1992); UVA School of Law (J.D. 1996)

Professional Background: Attorney; former F-16 pilot, SCANG (see attached resume)

Male  Female  Age: 18-25  26-50  Over 50

Name of Committee in which interested: Richland County Airport Commission

Reason for interest: An aviatrix since 1986, I want to promote the aviation industry in my home county, emphasis safety and education, and maximize its economic potential.

Your characteristics/qualifications, which would be an asset to Committee, Board or Commission:

As an experienced military pilot and combat veteran, I bring specialized knowledge, skills, committment, a strong work ethic and a dedication to public service.

Presently serve on any County Committee, Board or Commission? No

Any other information you wish to give? Promoted to Lieutenant Colonel in 2013.

Recommended by Council Member(s): Councilman Greg Pearce

Hours willing to commit each month: As needed

**CONFLICT OF INTEREST POLICY**

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*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

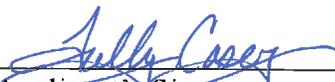
Yes \_\_\_\_\_ No **X** \_\_\_\_\_

### STATEMENT OF FINANCIAL OR PERSONAL INTERESTS

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes \_\_\_\_\_ No **X** \_\_\_\_\_

If so, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

  
Applicant's Signature

7/9/15  
Date

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Status of Application: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> On file	

## TALLY PARHAM CASEY

### **Home**

27 Woodhill Circle  
Columbia, SC 29209  
803-776-4611 (home)  
803-446-4469 (cell)

### **Office**

801 Gervais Street, Ste. B  
Columbia, SC 29201  
803-254-6542  
tparham@wyche.com

## WORK EXPERIENCE

**Wyche, P.A.**, Columbia, SC (2000 – 2005; 2007-Present)

Shareholder since November 2008

Practice areas include: Aviation Litigation, Commercial Litigation, Qui Tam Litigation, Voting Rights Litigation, Securities Litigation, Copyright Litigation, Veterans Law

Admitted: South Carolina Bar, Maryland Bar; District of Columbia Bar, U.S. District Court for the District of South Carolina, U.S. District Court for the District of Maryland, U.S. Court of Appeals for the Fourth Circuit, U.S. Supreme Court

**Venable, LLP**, Baltimore, MD (2005 – 2007)

Practice areas included SEC and White Collar Defense, Securities Regulation and Enforcement, Commercial Litigation, Veterans Law

**Hon. Cameron McGowan Currie**, U.S. District Court for the District of S.C. (Law Clerk, 2005)

**Sullivan & Cromwell**, New York, NY (Summer Law Clerk, 1995)

**Jenner & Block**, Washington, DC (Summer Law Clerk, 1994)

**Legal Action Center for the Homeless**, New York, NY: (Advocate and Clinic Supervisor, 1992-1993)

## MILITARY SERVICE

**United States Air Force Reserves**, Lieutenant Colonel, CAP-USAF/Det 2 (2012 – present)

**157<sup>th</sup> Fighter Squadron, SC Air National Guard**, Tactical Fighter Pilot, F-16 CJ (1996 – 2012)

Combat deployments to Operation Iraqi Freedom, Operation Southern Watch, Operation Northern Watch  
Air Medal, Air Achievement Medal, Meritorious Service Medal, Iraq Campaign Medal, Air Force Achievement Medal, S.C. Meritorious Service Medal

Top Gun Competition: 3<sup>rd</sup> overall (2001); Turkey Shoot High Altitude Dive Bomb Winner (2001)

Academic Excellence Award & Top Gun, F-16 B-Course, 61<sup>st</sup> Fighter Squadron, Luke AFB (1999)

Military Training Award: USAF Undergraduate Pilot Training, Columbus AFB, MS (1998)

Honor Graduate, Distinguished Graduate, Outstanding Athlete: Academy of Military Science (1996)

## EDUCATION

**University of Virginia School of Law**, J.D., 1996

Virginia Journal of International Law, Editorial Board

William Minor Lile Moot Court Competition

The Libel Show

**Princeton University**, A.B. in Classics, 1992, *Magna Cum Laude*

Rhodes Scholarship Finalist

American School of Classical Studies, Athens, Greece (1992)

J. Penrose Harland '13 Prize, Classics Department (1991 & 1992)

Stanley J. Seeger Fellowship, Hellenic Studies Department (1991)

Priorities Committee: Advisory board to president for university budget allocation (1990 – 1992)  
Tigerlilies: Princeton's oldest, all-female a cappella singing group (President, 1991-1992)  
Women's Crew

### PROFESSIONAL AWARDS & ACTIVITIES

South Carolina Bar  
House of Delegates (2010 – 2014)  
Young Lawyer of the Year (2004)  
Fourth Circuit Judicial Conference, Permanent Member  
Liberty Fellowship, Class of 2017  
Fellow, Litigation Counsel of America (2010 – present)  
United States Magistrate Judge Merit Selection Panel (2010)  
*The Columbia Business Journal's* "20 Under 40" (2009)  
South Carolina Association for Justice  
Federal Bar Association  
John Belton O'Neill Inn of Court

### PUBLICATIONS & LECTURES

Panelist, "We Were Young, We Were Soldiers: Issues Affecting Veterans and Their Lawyers," John Belton O'Neill Inn of Court, Columbia, SC (2013)

Speaker, "What Would You Do If You Were Not Afraid?" Pettigru Inn of Court, Charleston, SC (2013)

Panelist, "Heading Off Trouble or Stopping It in its Tracks: Conducting Internal Investigations and Minimizing False Claims Act and Foreign Corrupt Practices Act Risks," Wyche, P.A. In-House Counsel Roundtable (2011)

Author, "Lessons from the Cockpit," *Columbia Business Journal* (April 6, 2009)

Author, "The Quiet Revolution: Repeal of the Combat Exclusionary Statutes in Combat Aviation – What We Have Learned from a Decade of Integration," *William and Mary Journal of Women and the Law*, Volume 12, Issue 2 (2006)

Co-author, "Individual Criminal Liability for Willful Violation of the Occupational Safety and Health Act: A Practice Guide for Navigating Investigations and Prosecution of OSHA Crimes," ALI-ABA Course Materials, Criminal Enforcement of Environmental Laws (2006)

Panelist, "Women and War Symposium," William and Mary School of Law, Williamsburg, VA (2005)

### COMMUNITY

Palmetto State Base Camp, Board of Directors (2014 – present)  
EdVenture Children's Museum, Board of Trustees (2010 – 2013, Governance Committee Chair, 2011-2012)  
South Carolina State Library Foundation Board (2009 – present)  
Princeton University Alumni Schools Committee  
Frequent guest speaker to community groups, schools, and veterans' organizations

### PERSONAL

Born: May 20, 1970 in Greenville, South Carolina  
Married to Lt. Col. Matthew N. Casey, F-16 Pilot, U.S. Air Force Reserves, Shaw AFB  
Three children



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: Prentiss Mclaurin

Home Address: 100 tradition Circle , Columbia SC 29229

Telephone: (home) 736 5633 (work) 240 2911 4211

Office Address: \_\_\_\_\_

Email Address: Pmclaurin001@sc.rr.com

Educational Background: BS Limestone College

Professional Background: 26 Years Air Force/Retired 2005 /SC Veterans Supervisor

Male  Female  Age: 18-25  26-50  Over 50

Name of Committee in which interested: Airport Commission

Reason for interest: Have over 15 Years in Air Field Management/ and Management  
With the the public and Controllers and Noise assessment.

Your characteristics/qualifications, which would be an asset to Committee, Board or  
Commission:  
AirField management / Noise assessment/ Public information/ As and ATC controller  
work with airfield managers from other facilities.

Presently serve on any County Committee, Board or Commission? No

Any other information you wish to give? No

Recommended by Council Member(s): Torey Rush

Hours willing to commit each month: 15 Hours

**CONFLICT OF INTEREST POLICY**

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*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

Yes \_\_\_\_\_ No **X** \_\_\_\_\_

**STATEMENT OF FINANCIAL OR PERSONAL INTERESTS**

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes \_\_\_\_\_ No **X** \_\_\_\_\_

If so, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Pentecost M. G. ...*

Applicant's Signature

*19 NOV 2015*

Date

**Return to:  
Clerk of Council, Post Office Box 192, Columbia, SC 29202.  
For information, call 576-2060.**

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Status of Application: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> On file	



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: Timothy Alexander Mousseau

Home Address: 6016 Marthas Glen Rd, Columbia, SC 29209

Telephone: (home) 803-233-2822 (work) 803-920-7704

Office Address: Department of Biological Sciences, University of South Carolina, 29208

Email Address: tim.mousseau@gmail.com

Educational Background: BSc('79), Bsc(Hons - '80), MSc ('83), PhD ('88)

Professional Background: University professor

Male  Female  Age: 18-25  26-50  Over 50

Name of Committee in which interested: Airport Commission

Reason for interest: I am a pilot and tenant at the airport. I am also a double land owner within 1 mile of the airport. I am very interested in supporting airport activities.

Your characteristics/qualifications, which would be an asset to Committee, Board or Commission:  
I am an active pilot and educator, with a vested interest in the community. Also, I have been a neighborhood leader (former president of the the Forest

Presently serve on any County Committee, Board or Commission? No

Any other information you wish to give? Yes. See attached cover letter and resume.

Recommended by Council Member(s): Greg Pearce

Hours willing to commit each month: 10

**CONFLICT OF INTEREST POLICY**

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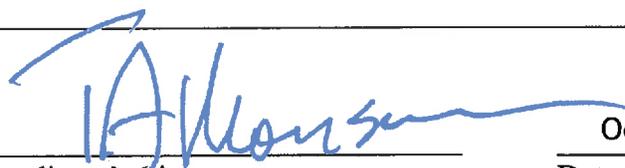
Yes \_\_\_\_\_ No **xxx** \_\_\_\_\_

**STATEMENT OF FINANCIAL OR PERSONAL INTERESTS**

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes \_\_\_\_\_ No **xxx** \_\_\_\_\_

If so, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

 Oct 18, 2015  
Applicant's Signature Date

**Return to:  
Clerk of Council, Post Office Box 192, Columbia, SC 29202.  
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2

- 5) Administrative Experience – As an active professor at the university, and an active scientist in the broader national and international communities, I have a broad range of administrative experience that includes having served on countless committees, boards and panels at all levels of organization. At the university, I have served as associate dean of my college, dean of the graduate school, and associate vice-president for the university. Most of these activities have no direct relevance, perhaps, other than illustrating my experience as an active and productive participant in a wide variety of community-building activities. I will attach my professional resume in case this is relevant.

In summary, I am quite interested in both the CUB airport and the community it serves and I believe I have the experience needed to make my participation on the RC Airport Commission useful and constructive for the county, the airport, and the surrounding communities.

Sincerely,

A handwritten signature in blue ink that reads "T. Mousseau". The signature is written in a cursive style and is enclosed within a blue ink scribble that forms a large, irregular shape around the text.

Timothy Mousseau  
6016 Marthas Glen Rd.  
Columbia, SC 29109 USA  
Richland County

803-920-7704  
[tim.mousseau@gmail.com](mailto:tim.mousseau@gmail.com)

October 18, 2015

Dear Richland County Council,

Please accept the attached application form and supporting materials as application for the opening on the Richland County Airport Commission.

My qualifications for this position include the following:

- 1) Active Pilot – I have been active in aviation for more than 15 years as a private pilot and aviation enthusiast. As such, I am up-to-date on most of the regulations and issues related to general aviation and I make use of many of the airports in the region.
- 2) Pilot tenant at CUB – I have been a tenant at CUB (Hangar 15) for many years and share a Cherokee 140 at the airport. Thus I am an active user of the facility and am familiar with many of the issues and concerns of the aviation community in the region. I am a member of both the AOPA and the EAA, two of the largest pilots' associations in the USA and I try to stay abreast of issues facing the GA community at both local and national levels.
- 3) Resident – My primary residence is at 6016 Marthas Glen Rd, about 0.8 miles from the end of runway 31, and I have a secondary residence for my children at 3127 Montgomery, less than 0.5 miles from the end of runway 13 (see attached google earth maps for verification). As such I am member of the communities most affected by airport operations and am familiar with many of the issues facing the airport related to its location in an urban center.
- 4) Community Supporter – Over the years, I have been quite active in community affairs. For example, I am a past president of the Forest Hills Neighborhood association and was very active 1999-2003 in promoting neighborhood safety and beautification, and fundraising related to these activities. As president, I interacted extensively with Columbia City Council in a variety of activities related to promoting the interests of the neighborhood and its residents, as well as working with other neighborhoods for the promotion of the city and region. More recently, as president of the Hand Middle School Ed Foundation, I worked with the City and downtown neighborhoods to acquire more than \$150,000 in grants and in-kind contributions to support school related capital projects. As with my academic collaborations in my job at the university, these city-level activities have required facilitation of positive interactions among diverse groups towards the common goal of improving the quality of life for the broader community.



# TIMOTHY ALEXANDER MOUSSEAU

Curriculum Vitae – August 2015

## PERSONAL INFORMATION

---

### Office Address

University of South Carolina

Department of Biological Sciences

Columbia, SC 29208

Telephone: 803-777-8047; Fax 803-777-4002; Cell: 803-920-7704

E-mail: [Mousseau@sc.edu](mailto:Mousseau@sc.edu)

Website: <http://cricket.biol.sc.edu>

Citizenships: USA & Canada

## PROFESSIONAL EXPERIENCE

---

2002-	Professor of Biological Sciences
2014-15	Visiting Professor, Chubu University (Nagoya, Japan)
2010-11	Associate Vice President for Research and Graduate Education
2010-11	Dean of the Graduate School (Interim)
2006-10	Associate Dean for Research and Graduate Education, College of Arts and Sciences, USC
1999-2000	Visiting Professor, Université of Pierre et Marie Curie (Paris VI)
1998-2001	Chair, Graduate Program in Ecology, Evolution and Organismal Biology
1997-1998	Program Director, National Science Foundation (Population Biology)
1996-1997	Chair, Graduate Program in Ecology, Evolution and Organismal Biology
1996-2008	Professor of Entomology (Adjunct), Clemson University
1996-2002	Associate Professor, USC
1991-1996	Assistant Professor, USC

## EDUCATION

---

PDF	University of California, Davis (1988-90), NSERC Postdoctoral Fellow
Ph.D.	McGill University (1988), Biology
M.Sc.	University of Toronto (1983), Zoology
B.Sc.(Hons)	University of Ottawa (1980), Biology (Cum Laude)
B.Sc.	University of Ottawa (1979), Biology

## HONORS AND AWARDS

---

- Fellow, American Council of Learned Societies (ACLS), 2015
- Fellow, American Association for the Advancement of Sciences (2008)
- Fellow National, The Explorers Club (2009)
- Member, the Cosmos Club, Washington, DC (elected 2011)
- President's Appreciation Award, National Black Graduate Student Association (2011)
- Faculty Award, Black Graduate Student Association (2011)
- Fulbright Senior Specialist Awards (Ukraine)(2007, 2012)
- Mortar Board "Excellence in Teaching" award (1998)
- USC Provost's Instructional Innovation award (1996)
- SEC Academic Leadership Development Fellow (ALDP)(2009-10)
- NSERC Postdoctoral Fellow Award (1988)
- McConnell Doctoral Fellow Award (1985)

## PROFESSIONAL MEMBERSHIPS

---

American Association for the Advancement of Sciences  
New York Academy of Sciences  
South Carolina Academy of Sciences  
American Nuclear Society  
American Society of Naturalists  
Council of Colleges of Arts & Sciences  
Florida Entomological Society  
Oak Ridge Associated Universities (USC Councilor 2006-2010)  
PSAC-CESU – USC councilor (2006-2010)  
Society for the Study of Evolution  
Council of Graduate Schools (2010-11)  
Council on Undergraduate Research (2010-11)

## SERVICE ACTIVITIES

---

### Service to the University (since 2006)

- 2010-11    **Associate Vice President for Research and Graduate Education –**  
Responsibilities included oversight of university-wide Sponsored Awards Management Office, Research Compliance Office, Animal Care Office, Research Development Office, the Office of Undergraduate Research, and the Graduate School.

- 2010-11 **Dean of the Graduate School – Interim –**  
In addition to management of the Graduate School, responsibilities included development of a blueprint for the reorganization of the Graduate School; design and implementation of a new graduate fellowship program (Presidential Fellows) and associated mentoring program; design and implementation of new travel grant program;
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- 2006-10 **Associate Dean for Research and Graduate Education – College of Arts and Sciences -** Responsibilities included the development and implementation of policies to enhance College research, scholarship, and academic missions; participation in College’s strategic planning and research budgeting activities; oversight of college research centers including the McCausland Center for Brain Imaging, College Machine Shop, Center for Digital Humanities; the development of a Confucius Institute; new programs for faculty mentoring; design and implementation of a new graduate student travel grant program; conceived and implemented a new USC-CAS-NEH Summer Stipend Award Program to support summer research in the humanities; Conceived and implemented strategies for faculty mentoring and community building including “Faculty Field Trips” to Washington DC to meet with funding agencies and grant writing workshops; conceived and chaired a committee to recognize faculty research accomplishments through organized nominations for national awards (e.g. AAAS fellow nomination).
- 2008-14 **Program Director, SC STEPs to STEM –** Managed USC’s NSF supported undergraduate bridge program aimed at increasing recruitment, retention and graduate rates of transfer students to STEM fields (\$2M)
- 2009-14 **Program Director, SC Graduate Steps to STEM –** Managed USC’s S-STEM graduate training program. Sponsored by NSF (\$600k) and aimed at increasing recruitment and retention of transfer students to graduate programs in STEM fields.
- 2000- **Founding Director, USC Chernobyl + Fukushima Research Initiative –** This research initiative began formal research activities in Ukraine in 2000, Belarus in 2005, and Fukushima, Japan, in July, 2011. To date, the group has conducted more than 35 research expeditions to Chernobyl and 15 expeditions to Fukushima. Original funding sources included the Samuel Freeman Charitable Trust, the CNRS (France), the National Science Foundation, and the National Geographic Society. Subsequently, additional funding sources have included NATO, the Civilian Research Development Foundation (CRDF), the National Institutes of Health (NIH), Qiagen GmbH, the Fulbright Foundation, the University of South Carolina Office of Research, the University of South Carolina College of Arts & Sciences, the Academy of Finland, and gifts from private citizens. To date, more than 80 scientific publications have resulted from this initiative, most in the past decade, with many others in progress. This research has been highlighted in many

newspaper reports and television programs including the New York Times, The Economist, Harpers, the BBC, CNN, CBS's 60 Minutes, Scientific American, and the PBS News Hour (see attached list). The team has pioneered the use of advanced ecological, genetic and dosimetric technologies in order to unravel the health and environmental consequences of chronic low-dose exposure resulting from the Chernobyl and Fukushima disasters. These have included massively replicated ecological censuses of natural populations of birds, mammals and insects to investigate population and demographic effects; DNA sequencing and genotoxicity testing to assess short and long term genetic damage to individuals living in the wild; and the development of miniature dosimeters attached to wild animals and field measurements of whole body burdens of radioisotopes in birds and mammals to obtain accurate estimates of realized external and internal radiation doses to animals living under natural conditions. Recently, the group has expanded to include epidemiological and genetic studies of human populations (especially children) living in Chernobyl-affected regions of Ukraine. USC's Chernobyl + Fukushima Research Initiative was the first and currently is the only research group to utilize a multidisciplinary approach to address the health and environmental outcomes of radiation effects in free-living natural populations. This has permitted the investigation of both acute (short term) and chronic (long term and multi-generational) exposures. The Chernobyl + Fukushima Research Initiative is also currently the only independent research team working in both Chernobyl and Fukushima.

#### **University Committee Service (Since 2006)**

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|---------|---|
| 2010-11 | Columbia Commencement Committee (USC Board of Trustees)   |
| 2010-11 | Provost's Distance Education Advisory Committee   |
| 2010-11 | Graduate Council (ex-officio)   |
| 2009    | Provost's SACS Standards Committee  |
| 2008    | Provost's Non-Tenure Track Faculty Definitions and Policies Revisions Committee (Chair of definitions sub-committee)      |
| 2008    | Provost's Carnegie Foundation Community Engagement Classification Committee   |
| 2007    | Associate Deans for Engineering and Computing Search Committee (Chair)  |
| 2008    | Investigatory committee on academic misconduct (College of Arts & Sciences)   |
| 2006-10 | A&S Academic Planning Council – Ex-officio member of the colleges primary academic policy management group.               |
| 2007-08 | Confucius Institute – Co-author of initial grant proposal to Chinese government, ex-officio member of steering committee. |
| 2007-08 | President's Minority Affairs Review Committee, Faculty and Staff, Subcommittee Report                                     |
| 2008-10 | Research Deans Monthly Discussion Group Committee (chair)   |

#### **Outside Professional Service**

- Co-Organizer, IUR International Workshop, Miami, FL, November, 2015.
- Program Committee, IUR International Conference, Modern Problems of Genetics, Radiobiology, Radioecology, and Evolution, St. Petersburg, Russia, 2-4 June, 2015

- Organizing Committee, UNDP-sponsored meeting in Kyiv, Ukraine, April 20-22, 2011, “Twenty-five Years after Chernobyl Accident: Safety for the Future”
- Panelist, National Academy of Sciences, Analysis of Cancer Risks in Populations Near Nuclear Facilities: Phase I (2011-)
- Panelist, National Academy of Sciences, GAO Panel on Health and Environmental Effects from Tritium Leaks at Nuclear Power Plants (2011)
- USC Councilor to the Oak Ridge Affiliated Universities Association (ORAU), (2006-10)
- Nominator, 2002, 2005, 2009, 2013 Kyoto Prizes, Inamori Foundation (nominated 2009 winner)
- USC Representative to the Cooperative Ecosystems Studies Unit (P-SAC CESU)(2008-10)
- Review of the International Radiobiology Laboratory, Gomel, Belarus, 2009
- Member, External Oversight Committee, NIH RISE Program, Benedict College, 2007-11
- On-site Review of Fisheries Technologies Program, Nagasaki University, 2006
- Symposium co-organizer, Ecological Society of America, Montreal, Quebec, August 2005
- Symposium organizer, “Adaptive Genetic Variation in the Wild,” Annual Meetings of the Ecological Society of America, Albuquerque, NM, August 1997.
- Symposium organizer, “Maternal Effects as Adaptation,” Annual Meetings of the Society for the Study of Evolution, St. Louis, June 1996.

#### **Service to Funding Agencies**

- Explorers Club Discovery Grants Review panel (January 2014)
- NSF S-STEM program, review panel member (Sept 2010)
- NSF STEM Program, review panel member (Nov 2009)
- CONICYT Site Reviews in Santiago & Valdivia, Chile. World Bank – (Nov 2008)
- UAE National Science Foundation Science and Technology Center Panel Review, in Dubai, United Arab Emirates (Nov 2008).
- Fulbright Foundation (July 2007, 2012, 2013, 2014)
- Science Foundation Ireland, panel member, Dublin, Ireland (Dec 2007)
- NSF PEP Panel member (April 2005)
- NSF PEP Panel member (April 2004)
- Member, Reverse Site Visit, NSF CREST program. 2000.
- USGS Grand Canyon Monitoring and Research Center Panel member, Phoenix AZ (2001)
- Program Director, National Science Foundation, Population Biology (1997-98)
- Directed NSF BIO Postdoctoral Fellowship Panel (1998)
- Directed NSF BIO DEB Doctoral Dissertation Improvement Grant Panel (1998)
- Directed NSF BIO Population Biology Program Advisory Panel (April 1998)
- Directed NSF BIO Population Biology Program Advisory Panel (October 1997)
- Served on the Doctoral Dissertation Improvement Panel Review for NSF’s Division of Environmental Biology (Population Biology / Systematics).(1997)
- Served as a panel referee for the 1996 Bluefin Tuna reports (FISHTEC/NMFS).(1996)
- Served as referee for 1997 Bluefin Tuna grant program (FISHTEC/NMFS/SC SEA

Grant)(1997)

### Editorial Service

- Senior-Editor, *The Year in Evolutionary Biology*, New York Academy of Sciences Press (an annual review series). 2008-
- Academic Editor, PLoS ONE, 2014-
- Editorial Board Member, *Breakthrough Magazine* (USC), 2006-11
- Editorial Board Member, *The Open Evolution Journal*, 2007-13
- Editorial Board Member, *Bulletin of the Chernobyl Zone*, 2007-12
- Associate Editor, *Journal of Evolutionary Biology*, 2002-5
- Acting Editor-in-Chief, *Evolution*, (Aug- Oct) 2001
- Associate Editor, *Evolution*, 1999-2001
- Referee for American Journal of Botany, American Naturalist, Annals of the Entomological Society of America, Behavioral Ecology, Behavioral Ecology and Sociobiology, Bioscience, Canadian Journal of Zoology, CMLS, Copeia, Ecology, Ecological Entomology, Ecology Letters, Ecoscience, Environmental Entomology, Ethology, Evolution, Functional Ecology, Hereditas, Heredity, Journal of Evolutionary Biology, Journal of Heredity, Journal of Herpetology, Journal of Insect Physiology, Journal of Theoretical Population Biology, Nature, PNAS, The Royal Society, UK (Proceedings B.), Science, Trends in Ecology and Evolution, and many others.

### Community Service

- Hand Middle School Educational Foundation (Columbia, SC): Board member 2005-11, President 2008-09. Raised more than \$150,000 in grants and donations to support school capital improvements. Was elected as the Richland County School Board volunteer group of the year (2009-2010)
- Forest Hills Neighborhood Association (Columbia, SC): Board member 1998-2004; President 2002-04. Worked extensively with City Council and management and the CPD to implement plans for improvement of public safety and beautification in downtown neighborhoods.

### International Activities

- I have been engaged in a number of international programs to increase research and educational opportunities for USC students and faculty overseas. I have negotiated MOU's with the following institutions: Nagasaki University, Japan; Taras Shevchenko National University of Kyiv, Ukraine; Chernobyl EcoCenter, Ukraine; Institute for Hydrobiology of the National Academy of Sciences of Ukraine; International Radiobiology Institute of the National Academy of Sciences of the Republic of Belarus.

## **PUBLICATIONS**

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### **EDITED VOLUMES AND BOOKS**

- Mousseau, T.A. and C.W. Fox. 2015. The Year in Evolutionary Biology, 2015. Edited volume. **Annals of the New York Academy of Sciences**, in press.
- Fox, C.W. and Mousseau, T.A. 2014. The Year in Evolutionary Biology, 2014. Edited volume. **Annals of the New York Academy of Sciences**, 1320: 1-92.
- Mousseau, T.A. and C.W. Fox. 2013. The Year in Evolutionary Biology, 2013. Edited volume. **Annals of the New York Academy of Sciences**, 1289: 1-105.
- Mousseau, T.A. and C.W. Fox. 2012. The Year in Evolutionary Biology, 2012. Edited volume. **Annals of the New York Academy of Sciences**, 1256:1-107.
- Burris, J.E., J.C. Bailar, III, H.L. Beck, A. Bouville, P.S. Corso, P.J. Culligan, P.M. Deluca, Jr., R.A. Guilmette, G.M. Hornberger, M. Karagas, R. Kasperson, J.E. Klaunig, T. Mousseau, S.B. Murphy, R.E. Shore, D.O. Stram, M. Tirmarche, L. Waller, G.E. Woloschak, J.J. Wong. 2012. Analysis of Cancer Risks in Populations Near Nuclear Facilities: Phase I. **Nuclear and Radiation Studies Board, The National Academies Press**, Washington, D.C., 412pp.
- Schlichting, C. and T.A.Mousseau. 2010. The Year in Evolutionary Biology 2010. Edited volume. **Annals of the New York Academy of Sciences**, 1206: 1-162.
- Schlichting, C. and T.A.Mousseau. 2009. The Year in Evolutionary Biology 2009. Edited volume. **Annals of the New York Academy of Sciences**, 1168: 1-228.
- Schlichting, C. and T.A.Mousseau. 2008. The Year in Evolutionary Biology 2008. Edited volume. **Annals of the New York Academy of Sciences**, 1133: 1-205
- Mousseau, T.A., B. Sinervo, and J. A. Endler. 2000. Adaptive Genetic Variation in the Wild. Edited volume. **Oxford University Press**, 288pp.
- Mousseau, T.A. and C.W. Fox. 1998. Maternal Effects As Adaptations. Edited volume. **Oxford University Press**, 400pp.

## PUBLICATIONS

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### In review:

1. Bonisoli-Alquati, A., A.P. Møller, S. Ostermiller, T. Mappes, G. Milinevsky, T.A. Mousseau. 2015. Sexual selection predicts adaptation to ecological disturbance in Chernobyl birds. In review.
2. Garnier-Laplace, J., K. Beaugelin-Seiller, C. Della-Vedova, J. Métivier, C. Ritz, T.A. Mousseau, A. P. Møller. 2015. A reassessment of the association between abundance and species diversity of birds at Fukushima in relation to chronic radiation exposure. Scientific Reports, accepted pending revisions.
3. Ruiz-González, M.X., G. Á. Czirják, P. Genevaux, A. P. Møller, T. A. Mousseau and P. Heeb. 2015. Adaptation of Feather-Associated Bacteria to Intermediate Levels of Ionizing Radiation near Chernobyl. Submitted.
4. Baverstock, K., W. Iwata, T. Mousseau, S. Pflugbeil, T. Imanaka, J. M. Otaki, T. Tsuda, H. Sakiyama, W. Hoffmann. 2015. Fukushima health impact assessment- a renaissance of the threshold assumption in low dose radiation risk? Submitted.
5. Fill, J.M., J.S. Glitzenstein, D.R. Streng, J. Stowe, T.A. Mousseau. 2015. Wiregrass (*Aristida beyrichiana*) limits woody plant encroachment in Longleaf Pine (*Pinus palustris*) Ecosystems. In review.
6. Einor, D., A. Bonisoli-Alquati, D. Costantini, T. A. Mousseau, A. P. Møller. 2015. Ionizing radiation, antioxidant response and oxidative damage: A meta-analysis. Decision pending revisions.
7. Burlakova, E.B., A. M. Grodzinskiy, K. H. Loganovsky, T.A. Mousseau, A.P. Moller, M. V. Naboka, B. M. Shestopalov. 2015. Recent advances concerning the impacts of low-dose radiation associated with the Chernobyl disaster. Submitted.
8. Chebli, A., D. Einor, B. Doumandji-Mtiche, S. Doumandji, T. A. Mousseau. 2015. Preliminary investigations of genetic damage associated with a nuclear test site. In review.
9. Møller, A.P., F. Morelli, T.A. Mousseau, P. Tryjanowski. 2015. Radiation, habitats and number of syllables in Chernobyl cuckii calls. In review.
10. Lehmann, P., Boratynski, Z., Mappes, T., Mousseau, T.A., Møller, A.P. 2015. Cataract frequency, fecundity and background radiation in natural mammalian populations from Chernobyl. Decision pending revisions.
11. Møller, A.P., T.A. Mousseau. 2015. General evidence for reduced reproductive success in birds at Chernobyl and Fukushima. In review.
12. Møller, A.P., T.A. Mousseau. 2015. Germination rate of seeds from plants at Chernobyl. Journal of Evolutionary Biology, In review.
13. Fill, J., J. Waldron, S. Welch, W. Gibbons, S. Bennett, and T.A. Mousseau. 2015. Eastern diamondback rattlesnake habitat selection in the South Carolina coastal plain tidewater region. Animal Conservation, in review.
14. Fill, J.M., B.M. Moule, J.M. Varner, and T.A. Mousseau. 2015. Flammability of the keystone bunchgrass *Aristida stricta*. Oikos, In review.

15. Jenkinson, S., A. Bonisoli-Alquati, A.P. Møller, D.A.E. Beasley, T.A. Mousseau. 2015. Rate of development, not parental radiation exposure, predicts genetic damage in grasshoppers (*Chorthippus albomarginatus*). Pending revisions.

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16. Aliyu' A.S., N. Evangeliou, T. A. Mousseau, J. Wu, A. T. Ramli. 2015. Current Knowledge Concerning the Health and Environmental Consequences of the Fukushima Daiichi Nuclear Power Plant (FDNPP) Accident. *Environmental International*, In press.
17. Serga, S., Maistrenko, O., Rozhok, A., Mousseau, T.A., Kozeretska, I. 2015. Colonization of a temperate climate area by *Drosophila simulans*. *Canadian Journal of Zoology*, in press. doi: 10.1139/cjz-2015-0018
18. Mousseau, T.A., Møller, A.P. 2015. Landscape-scale consequences of nuclear disasters. *LA+ Interdisciplinary Journal of Landscape Architecture*. In press.
19. Mousseau, T.A., Møller, A.P. 2015. Radiation effects on the wildlife of Chernobyl and Fukushima. *Bengals Illustrated* 8 (3): 46-51.
20. Fill, J.M., W.J. Platt, S.M. Welch, J.L. Waldron, T.A. Mousseau. 2015. Updating models for restoration and management of fiery ecosystems. *Forest Ecology and Management*, in press. DOI: 10.1016/j.foreco.2015.07.021
21. Fill, J., J. Waldron, S. Welch, W. Gibbons, S. Bennett, and T.A. Mousseau. 2015. Using Spatially Explicit Models to Assess Potential Surrogate Habitat for an Imperiled Reptile. *PLoS ONE*, 10(4): e0123307. doi:10.1371/journal.pone.0123307.
22. Møller, A.P., T.A. Mousseau, I. Nishiumi, K. Ueda . 2015. Ecological differences in response of bird species to radioactivity from Chernobyl and Fukushima. *Journal of Ornithology*, in press. DOI: 10.107/s10336-015-1173-x
23. Aliyu, A.S., Mousseau, T.A., Ramli, A.T., Bununu, Y.A. 2015. Radioecological impacts of tin mining. *AMBIO*, DOI 10.1007/s13280-015-0677-1
24. Aliyu, A.S., Mousseau, T.A., N.N. Garba, H.T. Abba, Ramli, A.T. 2015. Estimation of an annual effective dose due to ingestion of natural radionuclides in cattle in tin mining areas of Jos Plateau, Nigeria: Are large mammals really affected? *Natural Science*, 7(4): 190-196. DOI: 10.4236/ns.2015.74022
25. Møller, A.P., T.A. Mousseau. 2015. Biological Indicators of Ionizing Radiation in Nature. In: R.H. Armon, O. Hanninen (eds), *Environmental Indicators*, pp871-881, Springer, Netherlands. DOI:10.1007/978-94-017-9499-2\_49
26. Møller, A.P., I. Nishiumi, T.A. Mousseau. 2015. Cumulative effects on interspecific differences in response of birds to radioactivity from Fukushima. *Journal of Ornithology*, in press. DOI: 10.1007/s10336-015-1197-2
27. Oswald, H.R., J.L. Waldron, S.M. Welch, T.A. Mousseau. 2015. Environmental effects on southern two-lined salamander (*Eurycea cirrigera*) nest-site selection. *Copeia*, 103: 7-13.
28. Bezrukov, V., Møller, A.P., Milinevsky, G., Rushkovsky, S., Sobol, M., and T.A. Mousseau. 2015. Heterogeneous relationships between abundance of soil surface invertebrates and radiation from Chernobyl. *Ecological Indicators*, 52:128-133.

29. Bonisoli-Alquati, A., K. Koyama, D.J. Tedeschi, W. Kitamura, H. Suzuki, S. Jenkinson, E. Arai, A.P. Møller, T.A. Mousseau. 2015. Abundance and genetic damage of barn swallows from Fukushima. *Scientific Reports*, 5: 9432. DOI: 10.1038/srep09432
30. Møller, A.P., T.A. Mousseau. 2015. Strong effects of ionizing radiation from Chernobyl on mutation rates. *Scientific Reports*, 5: 8363. DOI:10.1038/srep08363
31. Owens, M., A. Bonisoli-Alquati, A.P. Møller, T.A. Mousseau. 2015. Genetic effects of low-dose ionizing radiation on the chaffinch (*Fringilla coelebs*) in Chernobyl. *FASEB Journal*, 29: 709.5
32. Fill, J.M., J.L. Waldron, S.M. Welch, M. Martin, J. Cantrell, S.H. Bennett, W. G. Kalinowsky, J. Holloway, and T.A. Mousseau. 2015. Breeding and reproductive phenology of the Eastern Diamond-backed Rattlesnake (*Crotalus adamanteus*) in South Carolina. *Journal of Herpetology*, in press. DOI:10.1670/14-031
33. Evangeliou, N., Y. Balkanski, A. Cozic, W. M. Hao, F. Mouillot, K. Thonicke, R. Paugam, S. Zibtsev, T. A. Mousseau, R. Wang, B. Poulter, A. Petkov, C. Yue, P. Cadule, B. Koffi, J. W. Kaiser, A. P. Møller. 2015. Past, present and future evolution of fire regime in the radioactively contaminated forests of Ukraine and Belarus: risks foreseen for the European population and environment from <sup>137</sup>Cs displacement. **Ecological Monographs**, 85: 49-72.

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34. Mousseau, T.A. 2014. The Biological Consequences of Chornobyl and Fukushima. In H. Caldicott (Ed), *Crisis Without End: The Medical and Ecological Consequences of the Fukushima Nuclear Catastrophe* (pp. 93-100). The New Press, New York, NY.
35. Steen, T.Y., and T.A. Mousseau. 2014. Outcomes of Fukushima: Biological effects of radiation on nonhuman species. *Journal of Heredity* 105: 702-703.
36. Boratynski, Z., P. Lehmann, T. Mappes, T.A. Mousseau, and A.P. Møller. 2014. Increased radiation from Chernobyl decreases the expression of red colouration in natural populations of bank voles (*Myodes glareolus*). **Scientific Reports**, 4: 7141. DOI:10.1038/srep07141.
37. Galvan, I., A. Bonisoli-Alquati, S. Jenkinson, G. Ghanem, K. Wakamatsu, T.A. Mousseau, A.P. Møller. 2014. Chronic exposure to low-dose radiation at Chernobyl favors adaptation to oxidative stress in birds. **Functional Ecology**, DOI: 10.1111/1365-2435.12283.
38. Møller, A.P., A. Bonisoli-Alquati, T.A. Mousseau, and G. Rudolfsen. 2014. Aspermy, sperm quality and radiation in Chernobyl birds. **PLoS ONE**, DOI: 10.1371/journal.pone.0100296.
39. Mousseau, T.A., A.P. Møller. 2014. Genetic and ecological studies of animals in Chernobyl and Fukushima. **Journal of Heredity**, 105:704-709.
40. Serga, S., O.M. Maistrenko, A. Rozhok, T. Mousseau, I. Kozeretska. Fecundity as one of possible factors contributing to the dominance of the wMel genotype of *Wolbachia* in natural populations of *Drosophila melanogaster*. **Symbiosis**, 63: 11-17.

41. Mousseau, T.A., G. Milinevsky, J. Kenney-Hunt, A.P. Møller. 2014. Highly reduced mass loss rates and increased litter layer in radioactively contaminated areas. **Oecologia** DOI:10.1007/s00442-014-2908-8.
42. Fill, J.M., S.M. Welch, H. Brown, J.L. Waldren, A.S. Weakley, T.A. Mousseau. 2014. Life history correlates of plant endemism in longleaf pine ecosystems. *Southeastern Naturalist*, 13: 484-492.

## 2013

43. Hermsell, I.G., T. Laskemoen, M. Rowe, A.P. Møller, T.A. Mousseau, T. Albrecht, J.T. Lifjeld. 2013. Patterns of sperm damage in Chernobyl passerine birds suggest a trade-off between sperm length and integrity. **Biology Letters** 9(5):20130530. Doi: 10.1098/rsbl.2013.0530
44. Mousseau, T.A., S.M. Welch, I. Chizhevsky, O. Bondarenko, G. Milinevsky, D. Tedeschi, A. Bonisoli-Alquati, and Møller, A.P., 2013. Tree rings reveal extent of exposure to radiation in Scots pine, *Pinus sylvestris*. **Trees – Structure and Function**, 27: 1443-1453. DOI 10.1007/s00468-013-0891-z
45. Møller, A.P., A. Bonisoli-Alquati, and T.A. Mousseau. 2013. High frequencies of albinism and tumors in free-living birds at Chernobyl. **Mutation Research**, 757:52-59.
46. Møller, A.P., and T.A. Mousseau. 2013. The effects of low-dose radiation: Soviet science, the nuclear industry – and independence? **Significance** 10(1): 14-19.
47. Møller, A.P., and T.A. Mousseau. 2013. Assessing effects of radiation on abundance of mammals and predator-prey interactions in Chernobyl using tracks in the snow. **Ecological Indicators**, 26: 112-116.
48. Mousseau, T.A., and A.P. Møller. Elevated frequencies of cataracts in birds from Chernobyl. **PLoS One**, 8(7): e66939. Doi10.1371/journal.pone.0066939.
49. Møller, A.P., I. Nishiumi, H. Suzuki, K. Ueda, and T.A. Mousseau. 2013. Differences in effects of radiation on abundance of animals in Fukushima and Chernobyl. **Ecological Indicators**, 14: 75-81. (<http://dx.doi.org/10.1016/j.ecolind.2012.06.001>).
50. Waldron, J., S. Welch, Holloway, J.D., T.A. Mousseau. 2013. Using occupancy models to examine human –wildlife interactions. **Human Dimensions of Wildlife**, 18: 138-151.
51. Mousseau, T.A., Møller, A.P. 2013. Chernobyl and Fukushima: Differences and Similarities, a biological perspective. **Asian Perspective**, 37:551-656.
52. Møller, A.P. and T.A. Mousseau. 2013. The effects of natural variation in background radioactivity on humans, animals and other organisms. **Biological Reviews of the Cambridge Philosophical Society**, 88:226-254.
53. A.P. Møller, S. Merino, F. de Lope, T. Eeva, E. Flensted-Jensen, H. Gwinner, D. Heylen, K. Klarborg, J. Martínez de la Puente, A. Marzal, E. Matthysen, P. Matyjasiak, M. Molina, T.A. Mousseau, J. Tøttrup Nielsen, P. Pap, J. Rivero de Aguilar, J. J. Soler, T. Szép and N. Ziane. 2013. Quantifying effects of climate change on host-parasite interactions: A comparative study of European birds and their parasites. **PLoS ONE** 8(12): e82886. Doi:10.1371/journal.pone.0082886.

54. Møller, A.P., and T.A. Mousseau. 2013. Low-dose radiation, scientific scrutiny, and requirements for demonstrating effects. **BMC Biology** 11(92): doi:10.1186/1741-7007-11-92.
55. Beasley, D.A., A. Bonisoli-Alquati, T.A. Mousseau. 2013. The use of fluctuating asymmetry as a measure of environmentally induced developmental instability: meta-analysis. **Ecological Indicators**, 39:218-226.
56. Waldron, J., S. Welch, S.H. Bennett, W.D. Kalinowsky, and T.A. Mousseau. 2013. Life History Constraints Contribute to the Vulnerability of a Declining North American Rattlesnake. **Biological Conservation**, 159:530-538.
57. T. Laskemoen, T. Albrecht, A. Bonisoli-Alquati, J. Cepak, F. de Lope, I. G. Hermosell, L. E. Johannessen, O. Kleven, A. Marzal, T. A. Mousseau, A. P. Møller, R. J. Robertson, G. Rudolfsen, N. Saino, Y. Vortman<sup>12</sup>, J.T. Lifjeld. 2012. Variation in sperm morphometry and sperm competition among barn swallow (*Hirundo rustica*) populations. **Behavioral Ecology and Sociobiology**, 67(2): S 301-309 (DOI: 10.1007/s00265-012-1450-0).
58. Townley, G., J. Katz, A. Wandersman, B. Skiles, M.J. Schillaci, B.E. Timmerman, T.A. Mousseau. 2013. Exploring the role of sense of community in undergraduate transfer student experience. **Journal of Community Psychology**, 41(3): 277-290.

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59. Møller, A.P., F. Barnier, and T.A. Mousseau. 2012. Ecosystem effects 25 years after Chernobyl: pollinators, fruit set, and recruitment. **Oecologia**, 170: 1155-1165. DOI 10.1007/s00442-012-2374-0.
60. Mousseau, T.A., A.P. Møller, and K. Ueda. 2012. Reply to “Comment on “Abundance of birds in Fukushima as judged from Chernobyl” by Moller et al. (2012)”. **Environmental Pollution** 169: 137-138. DOI: 10.1016/j.envpol.2012.05.012
61. Mousseau, T.A., A.P. Møller. 2012. Reply to response regarding “Abundance of birds in Fukushima as judged from Chernobyl” by Moller et al. (2012). **Environmental Pollution** 169: 141-142. DOI: 10.1016/j.envpol.2012.05.014
62. Beasley, D.A.E., A. Bonisoli-Alquati, S.M. Welch, A. P. Møller, T.A. Mousseau. Effects of parental radiation exposure on developmental instability in grasshoppers (*Chorthippus albomarginatus*). **Journal of Evolutionary Biology**, 25:1149-1162 (DOI: 10.1111/j.1420-9101.2012.02502.x).
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185. Mousseau, T.A., and D.A. Roff. 1989. Geographic variability in the incidence and heritability of wing dimorphism in the striped ground cricket, *Allonemobius fasciatus*. **Heredity** 62: 315-318.
186. Mousseau, T.A. 1989. An odometre for underwater transects. **Hydrobiologia** 184: 191-192.

- PhD thesis, Dept. of Biology, McGill University. Advisor: Dr. Derek Roff
- Mousseau, T.A. 1983. The ecology of the slimy sculpin (*Cottus cagnatus*) in central Ontario. MSc thesis, Dept. of Zoology, University of Toronto. Advisor: Dr. Nicholas Collins
  - Mousseau, T.A. 1980. Vitamin enrichment of lake plankton: field tests of micronutrient limitation. BSc Honors Thesis (University of Ottawa). Advisor: Dr. Frederic Briand
-

**SYMPOSIA, SEMINARS, AND PUBLIC PRESENTATIONS****Keynote and Plenary Presentations**

- Keynote Speaker, The 3<sup>rd</sup> Citizen-Scientist International Symposium on Radiation Protection, Tokyo, September, 2015
- Keynote Speaker, SE Fulbrighters Research Symposium, USC, Columbia, March 2015
- Keynote Speaker, Meeting of the IWHO, Geneva, November 2014
- Keynote Speaker, International Ornithological Congress, “From Chernobyl to Fukushima: Impacts of Nuclear Accidents on Bird Populations,” Tokyo, August, 2014
- Keynote Speaker, Workshop on Exposure and Effect: Measuring Environment, Safety, and Life in Asia, Singapore (Nanyang University), October 2014
- Plenary Speaker, Workshop on Nuclear Power in East Asia, Australian National University, August, 2014
- Keynote Speaker, Southeastern Ecology and Evolution Conference, Statesboro, GA, March 16, 2014
- Plenary Speaker, International Physicians for the Prevention of Nuclear War (IPPNW), Special Meeting to address health and environmental impacts of the Fukushima disaster, Germany, March 4, 2014
- Keynote Speaker, Wild Bird Society of Japan Annual Meeting, Chiba, Japan, November 9, 2013
- Keynote Speaker, House of Representatives, Tokyo, Japan, July 29, 2013
- National Council for Science and the Environment, Washington, DC, January 2013  
Plenary presentation, “Japan 2011: Cascading Disasters” (televised on C-SPAN).
- Keynote Speaker, USC TRIO Programs closing reception, June 27, 2013.
- The South Carolina Association of Naturalists, January 2013, Keynote lecture, “The Impacts of the Fukushima and Chernobyl Disasters on Wildlife”
- SC Hospital Association, Hospital Preparedness Summit, August 2012, Keynote Speaker, “Chernobyl vs. Fukushima: Can animal models inform public health risks associated with chronic low dose radiation exposure?”
- Hanford Natural Resource Damage Assessment Panel, Hanford, WA, August 2012, Plenary speaker, “The Effects of Radionuclides on Biota”
- Keynote Speaker, TRIO Programs closing reception, USC, April 9, 2011.
- Keynote Speaker, Great Lakes Institute for Environmental Research (Windsor), “Health and Environmental Impacts of Nuclear Contaminants: Lessons from the Wilds of Chernobyl”, April 12, 2010
- Keynote Speaker, National Birth Defects Prevention Network (NBDPN) Annual Meeting, Memphis, TN, February 2009.
- Keynote Speaker, TRIO Programs closing reception, USC, 2009.
- Keynote Speaker, Association for the Study of Animal Behavior, London, Dec 2008.
- Keynote, SC Public Health Association Meeting (SCPHA), Myrtle Beach, SC, May 2007.

- University of Chicago, “Chernobyl @ 25 years: Unacceptable Uncertainties and Unsubstantiated Optimism.” April 8, 2011
- Explorers Club National Executive Meeting, Charleston, January, 2011
- Harvard Medical School. April, 2010
- Keynote Lecture, Palmetto Forum, Columbia, SC, Oct 2007
- SC Public Health Association Meeting (SCPHA), Myrtle Beach, SC, May 2007 (Plenary speaker)

### **Invited Symposium Presentations**

- Graduate School Production Ecology and Resource Conservation Symposium, “One’s waste... Another One’s Treasure?”, Wageningen, Netherlands, November, 2015.
- International Union for Radioecology Workshop, Miami, FL, November 2015.
- Nuclear Security Summit and Workshop, 2015. Georgetown University, Washington, DC, Oct 2015.
- International Wildlife Management Congress, “Fukushima Wildlife”, Sapporo, Japan, July 2015
- IUR International Conference, Modern Problems of Genetics, Radiobiology, Radioecology, and Evolution, St. Petersburg, Russia, 2-4 June, 2015
- Harvard Medical School, “Human Teratogens”, April 2015
- American Genetics Association, Presidential Symposium, “Evolution and Plasticity: Adaptive Responses by Species to Human-Mediated Changes to their Ecosystems,” Seattle, WA, June 28, 2014
- The 3<sup>rd</sup> Citizen-Scientist International Symposium on Radiation Protection, Tokyo National Olympics Memorial Youth Center, Oct 13<sup>th</sup>, 2013, “Non-Human Animal Models for Effects of Radiation Exposure in Nature”
- Society for Molecular Biology and Evolution meetings, Chicago, July 8, 2013, “Chernobyl, Fukushima and Other Hot Places”
- National Council for Science and the Environment, Washington, DC, January 2013, Symposium presentation, “Ecosystem Impacts from Nuclear Energy: Lessons from Chernobyl and Fukushima”
- International Society for Environmental Epidemiology meeting, Columbia, SC, August 2012, Symposium presentation, “Chernobyl vs. Fukushima: Can animal models inform public health risks associated with chronic low dose radiation exposure?”
- American Nuclear Society meeting, San Diego, November, 2012, “Chernobyl and Fukushima: Differences and Similarities, a biological perspective”
- International LowRad meeting, Kiev, Ukraine, Dec 2011
- Entomological Society of America, Reno, NV, November, 2011
- American Nuclear Society, Washington, DC, November, 2011
- Pennsylvania State University, September, 2011
- Society for the Study of Birth Defects, Budapest, Sept 2008.
- International Conference on Social Protection of the Chornobyl NPP Accident

- University of Bern, Dec 2007
- Faculty of Fisheries, Nagasaki University, Jan. 2006
- Faculty of Medicine and Radiobiology, Nagasaki University, Jan. 2006
- Savannah River Ecology Lab, March 2006
- Converse College, Spartanburg, SC, March 2006
- Dartmouth College, NH, April 2006
- University of South Carolina (Walker Institute), Sept 2006
- University of Central Florida, Oct 2006
- Texas A&M, February, 2005
- University of Milan, Sept. 2005
- University of South Carolina, Aiken. Oct. 2005
- University of North Carolina, Greensboro, Nov. 2005
- Clemson University, Clemson, Dec. 2005
- University of Windsor, January 2004
- University of Montana, February 2004
- Benedict College, June 2004
- Ukrainian Antarctic Center, July 2004
- University of South Carolina, School of the Environment, October, 2004
- University of North Carolina, Chapel Hill, October, 2004
- North Carolina State University, October, 2004
- College of Charleston (Darwin Day Presentation), February 2003
- The Citadel (Charleston), February 2003
- Tulane University, January, 2002
- New Mexico State University, April 2002
- University of Georgia, February 2001
- Auburn University, February 2001
- University of Kentucky, March 2001
- University of Pierre et Marie Curie, Paris, January 2000
- University of California, Santa Cruz, March 2000
- University of Paris South, France, March 2000
- Uppsala University, Sweden, March 2000
- Clemson University, Dept. of Entomology. January, 1999.
- University of Toronto, January 1999.
- University of Northern British Columbia, October 1999
- University of North Carolina, Charlotte, November 1999
- College of Charleston, November 1999
- CNRS, Paris, France. January, 1998.
- University of Maryland, BEES. March, 1998.
- Georgia Southern University. October, 1998.
- North Carolina State University. November, 1998.
- Fordham University, The Bronx, NY, Dept. of Biology. February 1997.
- National Science Foundation, DEB. May, 1997.
- University of California, San Diego, Dept. of Biology. December 1996.

**14) QIAGEN GmbH. Support for Chernobyl and Fukushima-related Research. 2012-14.  
\$5,000.**

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Curriculum Vita – Timothy Mousseau

National Science Foundation (NSF)	Collaborative Research: Reproductive Behavior and Immune Defense - Supplement	3/1/05	9/30/07	\$6,000
USC/SOE/ERIC	Radioactive Contaminants, Antioxidants, and Mutation: A Comparative Analysis of	6/1/04	6/1/05	\$39,776
US Civilian Research & Development Foundation	Estimation of Radioactive Contamination of Birds in the Chernobyl Exclusion Zone	11/26/03	11/25/05	\$6,000
SC Research Authority (SCRA)	Control of Muscle Histolysis	11/1/03	6/30/04	\$35,060
Yawkey Foundation	Herpetofaunal Survey of the Yawkey Wildlife Center	9/1/03	8/31/05	\$35,000
National Science Foundation (NSF)	Collaborative Research: Reproductive Behavior and Immune Disease	3/1/03	9/30/07	\$104,652
National Geographic Society	Selection and fitness in the barn swallows of Chernobyl	1/1/03	1/1/04	\$20,000
National Science Foundation (NSF)	Mutation Rates and Fitness in the Barn	6/15/02	5/31/04	\$32,840
EPSCoR-BRIN Collaborative Research Program/NIH	Physiological Mechanisms of Muscle Histolysis	5/15/02	8/31/03	\$75,000
National Fish & Wildlife/DOI	Yawkey Wildlife Center Herpetological	4/1/02	12/31/04	\$6,105
National Fish & Wildlife/DOI	The Development of Smart Radio Telemetry for Monitoring and	4/1/02	12/31/04	\$5,930
SC Department of Natural Resources	GA: SC Department of Natural Resources	1/1/02	5/15/02	\$7,000
National Science Foundation (NSF)	Dissertation Research: The Evolutionary Genetics of Sexual Dimorphism	6/15/01	5/31/03	\$8,200
SC Sea Grant Consortium/NOAA	Development and Application of	2/15/01	2/14/02	\$2,600
SC Department of Natural Resources	GA: SC Department of Natural Resources	1/1/01	5/15/01	\$6,150
SC Sea Grant Consortium	Seed grant	1/1/01	1/1/02	\$5,200
National Science Foundation (NSF)	The Adaptive Significance of Phenotypic Plasticity and Reaction Norm Evolution in a Natural System	12/15/00	1/31/05	\$267,000
National Science Foundation (NSF)	The South Carolina Statewide Collaboration (SCSC) Providing Interactive	8/15/00	6/30/05	\$327,000
USC Educational Foundation/Kann	Sustainable Universities Initiative	5/1/00	12/30/00	\$6,000
CNRS (France)	Visiting professorship	1/1/00	6/1/00	\$20,000
National Science Foundation (NSF)	Genetic variation for oviposition preferences and larval growth and survival	6/1/96	6/1/99	\$312,000
USC	Provosts Instructional Innovation Award	6/1/96	7/1/96	\$17,695
USC	RPS	6/1/96	6/1/97	\$6,500
USC	SOE grant	6/1/96	6/2/96	\$4,000
National Science Foundation (NSF)	Symposium and book on Maternal Effects As Adaptations	6/1/96	6/1/97	\$6,000
National Science Foundation (NSF)	REU supplement	6/1/95	6/2/95	\$5,000
DOD (Marine Corp)	A Survey of Endangered Lepidoptera at Fort Jackson	6/1/95	6/1/96	\$18,000
USDA	Preference/performance relationships in a leaf-mining beetle	6/1/93	6/1/95	\$71,012
National Science Foundation (NSF)	Genetic correlations in a sender/receiver communication system	6/1/91	6/1/93	\$25,000
National Science Foundation (NSF)	Reinforcement in a Zone of Overlap and Hybridization. (PI: D.J Howard).	6/1/90	6/1/93	\$200,000
NSERC (Canada)	Postdoctoral Fellowship	8/1/88	8/1/90	\$50,000
McGill University	McConnell Doctoral Fellowship	6/1/85	6/1/88	\$25,500
	Total Grants			\$6,151,427

Shasta McBee (2003-04)<sup>1</sup>, Tamara Powell (2004)<sup>1</sup>, Lisa Wickliffe (2003-04), Huyen Diep (2003)<sup>5</sup>, Jimal Deas (2004)<sup>1</sup>, Stephanie (2004), Jennifer Cantey (2004), Annel Charles (2004)<sup>1</sup>, Kristin Reigel (2004), Austin Hughes, Jr. (2004), Emily Roskam (2004), James Lamar (2004), Frances Chang (2005)<sup>5</sup>, Shanna Ostermiller (2004-05), Megan Pass (2004-05), Christi Lynn (2005-6), Sarah Waggoner (Malborough College, 2005-06), Micahel Dole (2005-07), Andrew Voris (2005-07), Brooke Allen (2006), Kearri Amos (2006), Tina Pearson (2006), Melinda Sandifer (2006), William Medlin (2006), Chris Laurenzi (2007), William Buyck (2007), Kelli Carson (2007-08)<sup>1</sup>, Jessamine Stone (2007-09), Courtney Murray (2007-08)<sup>1</sup>, Allison Entfinger (2007-09), David Cann (2010-), Jennifer Allison (2009-10), Castro Gargiulo (2010), David Lucas (2010), Kelly Dow (2009-10), Erin Weeks (2009), Vladimir Nekrutenko (2011-), Kevin Kulungowski (2011-), Sade Sobers (2011-), Leila Heidari (2010-), Humna Fayyaz (2011-), Paul Thomas (2011), Marvin Brown (2011), Rachel Co (2009-10), Fred Gargiulo (2009 -11), Autumn Farley (2008-10), Jason Hubbard (2008 – 11), Joseph Hubbard (2008-11), Jennifer Allison (2007-11), Joseph Colbert (2007-11), Tim Knox (2006-07), Max Schilling (2006), Eliza Stucker (2007), Mira Radieva (2008), Lauren Sharpe (2008), Will Smith (2009), Kayla Broecker (2009), Daniel Young (2013-14), Irraj Iftexhar (2013-14), Michael Owens (2013-15), Angie Korabik (2013-15), Kaitlyn Bretz (2013-15), Alexandra Golden (2013-15).

#### **Students who have completed honors theses in my lab**

Rebecca Heil (1992-94), Amanda Anderson (1993-94), Virginia Groemminger (1992-95), C. Greg Cauthen (1995-96), Emmett Maas (1995-96), Cyndi Roberts (1995-97), Elizabeth Mack (1997-99), Evan Meadors (1999-00), Morgan Mullaney (2001-02), Elisa Thebault (2001), Crystal Lamb (2001)<sup>1</sup>, Daniel Plyer (2001-02), Tammy Powell (2004-05), Christina White (2004-05)<sup>1</sup>, Sarah Waggoner (Malborough College, 2005-06), Andrew Voris (2007-08), Humna Fayyaz (2013-14)

#### **GRADUATE STUDENTS**

Kim Waddell (PhD 1991-96) <sup>1</sup>	Jon Dunn (MSc 1991-94)
Alex Olvido (PhD 1991-98) <sup>4</sup>	Ken Fedorka (PhD 1996-02) <sup>3</sup>
Eilleen Lawson (PhD 1997-03)	Wade Winterhalter (PhD 1998-06)
Jackie Litzgus (PhD 1999-04)	Herrick Brown (MSc 1999-03)
Acchia Albury (PhD 2003-09) <sup>1</sup>	Will Dillman (MSc 2003-6)
Brent Fuller (PhD 2003-09)	Stephen Fields (PhD 2004-09)
Peter Johnston (MEERM 2003-07)	Carlos Chacon (MEERM 2003-07) <sup>3</sup>
Larcy Simpson (MAT 2005) <sup>1</sup>	Josh Castleberry (MEERM 2006)
De Anna Beasley (PhD 2006-13) <sup>2</sup>	Shanna Ostermiller (PhD 2006-)
Mike Martin (PhD 2009-)	Heather Mackey (MSc 2010-13)
Jennifer Filli (PhD 2010-15)	Svitlana Revnuik (PhD 2010-12)
Daniel Einor (PhD 2012-)	Abdurrahmane Chebli (PhD – visiting from Algeria, 2015)

#### **POSTDOCTORAL FELLOWS**

Dr. Chuck Fox (1993-96)	Dr. Alex Olvido (1998) <sup>4</sup>
Dr. Fran Groeters (1995-96)	Dr. Mike Musyl (1996-97)
Dr. Wayne Gearheart (1994)	Dr. LaReesa Wolfenberger (1997-98)
Dr. Kirsten Hural (2002-04)	Dr. Ken Fedorka (2005) <sup>3</sup>
Dr. Jane Kenney-Hunt (2007-9)	Dr. Shane Welch (2007-12)
Dr. Geir Rudolfsen (2008-9)	Dr. Jayme Waldron (2009-12)
Dr. Andrea Bonisoli-Alquati (2010-15)	Dr. Svitlana Revnuik (2010-12)

## Selected Press Coverage of the USC Chernobyl Research Initiative

- Scientific American: The Swallows of Fukushima (Steven Featherstone), February, 2015
- The New York Times: Forest Fires Threaten New Fallout From Chernobyl (Rachel Nuwer), April 7, 2015
- The New York Times: At Chernobyl, Hints of Nature's Adaptation (Henry Fountain), May 5, 2014.
- The New York Times: The Animals of Chernobyl (Erik Olsen)(video), May 5, 2014.
- The New York Times: Fukushima vs. Chernobyl: How have animals fared? (Rachel Nuwer), July 12, 2012
- The New York Times: Chernobyl Taking a Toll on Invertebrates Too (Henry Fountain), March 23, 2009
- The New York Times: Did Chernobyl Leave an Eden for Wildlife? (Henry Fountain), August 28, 2007.
- The New York Times: Saving Pets from radiation in Japan (Anahad O'Connor), November 11, 2011
- The Toronto Star: Life and Death in Chernobyl's Ghost Forest (Mitch Potter), May 17, 2014
- The Toronto Star: How To Stay Safe in Ukraine – From Radiation and War (Mitch Potter), May 19, 2014
- The Frankfurter Allgemeine: Die lauten vogel von Fukushima (Nora Pfutsenreuter), June 12, 2014
- The Economist: Something Glowing On, May 3<sup>rd</sup>, 2014.
- The Economist: Radiation and Birds: Not So Blindly Obvious, Sept 7, 2013
- The Economist: Surviving fallout: Birds can evolve to cope with the lingering effects of nuclear incidents (March 3<sup>rd</sup>, 2012).
- The Economist: Plumes and Plumage: Sexual selection and Chernobyl (12 July 2007).
- BBC News: Chernobyl's legacy recorded in trees (Mark Kinver), August 8, 2013
- BBC News: Chernobyl mammals tracked in snow (Victoria Gill), December 31, 2012.
- BBC Nature Feature: Chernobyl: A field trip to no man's land (Victoria Gill), July 26, 2011
- BBC News: Chernobyl birds are small brained (Matt Walker), February 5, 2011
- BBC News: Chernobyl species decline linked to DNA (Victoria Gill), August 20, 2010
- BBC News: Chernobyl zone shows decline in biodiversity (Victoria Gill), July 30, 2010
- BBC News: Working in the Chernobyl 'zone of alienation', August 20, 2010
- BBC News: Chernobyl 'shows insect decline' (Victoria Gill), March 18, 2009
- BBC News: Chernobyl 'not a wildlife haven' (Mark Kinver), August 14, 2007
- BBC News: Chernobyl's Legacy still undecided (Mark Kinver), April 24, 2006
- BBC News: "Severe abnormalities" found in Fukushima butterflies (Nick Compton), Aug 13, 2012
- Harpers Magazine: Life in the Zone: What we're still learning from Chernobyl (Steve Featherstone), June 2011
- Audubon Magazine: How has Fukushima's nuclear disaster affected the environment? (Jane Braxton Little), March 9, 2012
- MotherJones: Creepy Chernobyl Birdsong (Julia Whitty), April 12, 2012
- MotherJones: Birds Near Fukushima Hit Harder Than at Chernobyl (Julia Whitty), Feb 8, 2012
- The Chronicle of Higher Education: People: 5 minutes with Tim Mousseau, who studies radiation (David McNeill), July 24, 2011.



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: Jennifer Ford-Cooper

Home Address: 113 Carolina Ridge Drive Columbia, SC 29229

Telephone: (home) 803-237-6080 (work) 803-734-0359

Office Address: 2221 Devine Street, Columbia, SC 29229

Email Address: jenniferkford@yahoo.com

Educational Background: University of South Carolina, B.S. in info. Management

Professional Background: SCRA; SCDEW and SCDCA

Male  Female  Age: 18-25  26-50  Over 50

Name of Committee in which interested: Richland Memorial Hospital Board

Reason for interest: By helping to identify long-term goals, seek out diverse collaborative opportunities, and brainstorm—as well as potentially implement—innovative strategies for lasting change.

Your characteristics/qualifications, which would be an asset to Committee, Board or Commission:  
I thrive on going above and beyond. I'm confident that I would bring many unique qualities to this board.

Presently serve on any County Committee, Board or Commission? No

Any other information you wish to give? \_\_\_\_\_

Recommended by Council Member(s): \_\_\_\_\_

Hours willing to commit each month: Approximately 8-10 hours

**CONFLICT OF INTEREST POLICY**

It is the policy of Richland County to require disclosure of any personal or financial interest that may be influenced by decisions of the Committee, Board or Commission for which any citizen applies for membership.

Such conflict of interest does not preclude service but shall be disclosed before appointment. The Clerk of Council shall be notified of any change on an annual basis and members of all Committees, Boards or Commissions shall be required to abstain from voting or influencing through discussion or debate, or any other way, decisions of the Committee, Board or Commission affecting those personal and financial interests.

All statements so filed shall be signed and verified by the filer. The verification shall state that the filer has used all reasonable diligence in its preparation, and that to the best of his or her knowledge, it is true and complete.

Any person who willfully files a false or incomplete statement of disclosure or no change of condition, or who willfully fails to make any filing required by this article, shall be subject to such discipline, including censure and disqualification from the Committee, Board or Commission, by majority vote of the council.

*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

Yes  No

**STATEMENT OF FINANCIAL OR PERSONAL INTERESTS**

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes  No

If so, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

  
Applicant's Signature

11/17/2015  
Date

**Return to:**  
**Clerk of Council, Post Office Box 192, Columbia, SC 29202.**  
**For information, call 576-2060.**

**One form must be submitted for each Committee, Board or Commission on which you wish to serve.**

**Applications are current for one year.**

Staff Use Only	
Date Received: _____	Received by: _____
Date Sent to Council: _____	
Status of Application: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> On file	

**Jennifer K. Ford-Cooper, MBA**  
113 Carolina Ridge Drive, Columbia, SC 29229  
E-mail: jenniferkford@yahoo.com/Mobile: 803-237-6080

**Objective:** To obtain a position utilizing acquired skills/experiences in an organization with need for a determined professional with a background in project management, public relations and information management.

**Education:**

- University of South Carolina, Columbia, SC,  
Bachelor of Science, Integrated Information Technology (formerly AIME), August 2003
- Webster University, Columbia, SC  
Master's Degree, Business Administration, May 2008
- Grant Writing and Management USA Alumni, October 2012
- George Mason University, Fairfax, VA  
Legal Studies Certificate Program (Anticipated Graduation: August 2015)

**Technical Skills:**

- Applications: Microsoft Office Suite (Excel, Word, PowerPoint, Outlook, Microsoft Office SharePoint, Access and Publisher), Adobe Design Standard CS6 (Photoshop, InDesign, Illustrator) – More than 10 years of experience

**Organizations/Boards**

- International Association of Workforce Professionals (IAWP)(2007-2008)
- SCECSC LMI Technology Committee (2007-2009)
- Sistah Friend Book Club Literary Festival—Marketing Committee Chair (2009-2010)
- SCDEW Accountability Report Chairperson (2009-2011)
- Sistah Friend Book Club Advisory Committee Member—(2014-Present)
- Columbia Junior League (2015 – Present)

**Employment History:**

**State Identity Theft Coordinator (9/13- Present)**

**SC Department of Consumer Affairs, Identity Theft Division, Columbia, SC**

- Administer and enforce applicable state and federal laws related to identity theft
- Serves as division contact in the development of needs assessment and evaluation
- Coordinate outreach efforts aimed to increase public awareness via presentations, webinars and event coordination
- Research state and federal laws related to identity theft and assist with general legislative research and remain knowledgeable of national trends related to identity theft
- Maintain effective working relationships with federal, state and local agencies, media, and community organizations for the purpose of seeking out partnership opportunities
- Maintains multiple database systems for statistical tracking/reporting needs
- Serves as POC for IDTU division contracts
- Coordinates division procurement requests

**Research and Planning Administrator of Promotion & Publications and Workforce Information Management (6/07-3/13)**

**SC Department of Employment and Workforce, Labor Market Information, Columbia, SC**

- Served as a lead contact for all department marketing activities and products
- Oversaw the implementation of agency's first social media effort by means of initial blog launch
- Conducted statistical research/analysis via detailed summaries on economic/workforce trends data
- Supervised the promotion, operation and management of "fee for service" programs
- Prepared, coordinated, and presented professional presentations on agency products and services
- Attended employment events and conferences as a vendor/presenter/exhibitor
- Monitored department/agency customer service outcomes for accountability purposes
- Served as liaison between LMI Department and Information Technology Services on functional enhancements, web redesign and special project additions as needed

**Project Administrator/Web Coordinator 4/05- 5/07**

**Program Associate 11/01 – 4/05**

**South Carolina Research Authority—SC EPSCoR/IDeA Program, Columbia, SC**

- Analyzed program participant data and created customized summaries for reporting purposes
- Submitted results of research proposal solicitations in response to NASA/DOE/DoD and other SC EPSCoR/IDeA funded programs
- Provided support for professional State and National outreach events
- Served as web coordinator for both the SC EPSCoR and SC IDeA sites
- Developed event materials for outreach activities as needed; e.g., themed logos, program handouts, event summary reports, etc.)
- Supported program promotional efforts to increase public awareness via online content posts and newsletter development

## **References**

**Annette McCoy**  
**803-360-3870**

**NeKeshia Jones**  
**864-221-2265**

**Andre Davis**  
**803-528-6227**

**Jeanette Gray**  
**803-608-9957**

**Kareemah Dennis**  
**803-467-0896**



APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION

Applicant must reside in Richland County.

Name: James E. (Rick) Wheeler 315 1592 1211  
Home Address: 1321 Hagood Ave., Columbia 29205  
Telephone: (home) (803) 256-3208 (work) (803) 822-1680  
Office Address: 1630 Old Dunbar Rd., West Columbia 29172  
Email Address: rwheeler719@gmail.com  
Educational Background: college  
Professional Background: management  
Male  Female  Age: 18-25  26-50  Over 50   
Name of Committee in which interested: Richland Memorial Hosp. Board of Trustees  
Reason for interest: Have served two terms, applying for third and final term

Your characteristics/qualifications, which would be an asset to Committee, Board or  
Commission:

9 years of service to RMH including having been elected as Class R member to  
Palmetto Health board (served for 7 yrs)

Presently serve on any County Committee, Board or Commission? in gap year for RMH

Any other information you wish to give? I believe I have represented the citizens well.

Recommended by Council Member(s): Greg Pearce

Hours willing to commit each month: as needed

**CONFLICT OF INTEREST POLICY**

It is the policy of Richland County to require disclosure of any personal or financial interest that may be influenced by decisions of the Committee, Board or Commission for which any citizen applies for membership.

Such conflict of interest does not preclude service but shall be disclosed before appointment. The Clerk of Council shall be notified of any change on an annual basis and members of all Committees, Boards or Commissions shall be required to abstain from voting or influencing through discussion or debate, or any other way, decisions of the Committee, Board or Commission affecting those personal and financial interests.

All statements so filed shall be signed and verified by the filer. The verification shall state that the filer has used all reasonable diligence in its preparation, and that to the best of his or her knowledge, it is true and complete.

Any person who willfully files a false or incomplete statement of disclosure or no change of condition, or who willfully fails to make any filing required by this article, shall be subject to such discipline, including censure and disqualification from the Committee, Board or Commission, by majority vote of the council.

*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

*Yes* \_\_\_\_\_ *No* X \_\_\_\_\_

**STATEMENT OF FINANCIAL OR PERSONAL INTERESTS**

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes \_\_\_\_\_ No X \_\_\_\_\_

If so, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

  
Applicant's Signature

Oct. 16, 2015  
Date

**Return to:**  
**Clerk of Council, Post Office Box 192, Columbia, SC 29202.**  
**For information, call 576-2060.**

**One form must be submitted for each Committee, Board or Commission on which you wish to serve.**

**Applications are current for one year.**

<b>Staff Use Only</b>	
Date Received: _____	Received by: _____
Date Sent to Council: _____	
Status of Application: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> On file	



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: Shirley D. Mills

Home Address: 2206 Lincoln Street Columbia, SC 29201

Telephone: (home) (803) 513-9108 (work) (803) 777-0980

Office Address: 232 Thornwell Admin., Univ. of South Carolina, Columbia, 29208

Email Address: smills@mailbox.sc.edu

Educational Background: BA Columbia College 1979

Professional Background: Director of Government & Community Relations, USC

Male  Female

Age: 18-25  26-50  Over 50

Name of Committee in which interested: RMH Board of Trustees

Reason for interest: I have been impressed with the work of RMH over the years and would like to contribute to its continued success.

Your characteristics/qualifications, which would be an asset to Committee, Board or Commission:

My 35 years of experience in government and community relations and my knowledge of and keen interest in public health issues would be an asset to the Board

Presently serve on any County Committee, Board or Commission? no

Any other information you wish to give? \_\_\_\_\_

Recommended by Council Member(s): Greg Pearce

Hours willing to commit each month: as many hours as necessary to get the job done

**CONFLICT OF INTEREST POLICY**

It is the policy of Richland County to require disclosure of any personal or financial interest that may be influenced by decisions of the Committee, Board or Commission for which any citizen applies for membership.

Such conflict of interest does not preclude service but shall be disclosed before appointment. The Clerk of Council shall be notified of any change on an annual basis and members of all Committees, Boards or Commissions shall be required to abstain from voting or influencing through discussion or debate, or any other way, decisions of the Committee, Board or Commission affecting those personal and financial interests.

All statements so filed shall be signed and verified by the filer. The verification shall state that the filer has used all reasonable diligence in its preparation, and that to the best of his or her knowledge, it is true and complete.

Any person who willfully files a false or incomplete statement of disclosure or no change of condition, or who willfully fails to make any filing required by this article, shall be subject to such discipline, including censure and disqualification from the Committee, Board or Commission, by majority vote of the council.

*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

Yes \_\_\_\_\_ No no \_\_\_\_\_

#### STATEMENT OF FINANCIAL OR PERSONAL INTERESTS

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes \_\_\_\_\_ No no \_\_\_\_\_

If so, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Shirley D. Mills  
Applicant's Signature

11-20-2015  
Date

**Return to:**  
Clerk of Council, Post Office Box 192, Columbia, SC 29202.  
For information, call 576-2060.

**One form must be submitted for each Committee, Board or Commission on which you wish to serve.**

**Applications are current for one year.**

<b>Staff Use Only</b>	
Date Received: <u>11-23-15</u>	Received by: <u>Wm W. Roberts</u>
Date Sent to Council: _____	
Status of Application: <input type="checkbox"/> Approved	<input type="checkbox"/> Denied <input type="checkbox"/> On file



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: Dr. Traci Young Cooper  
Home Address: 120 Stonebrook Drive - Blythewood, South Carolina 29016  
Telephone: (home) (803) 735-9938 (work) (803) 231-6842  
Office Address: Waverly Administration Bldg. 1225 Oak Street - Suite 101, Cola., 29204  
Email Address: cooper4kidsc@gmail.com  
Educational Background: Georgetown University, Univ. of South Carolina, SC State Univ.  
Professional Background: Educator/Chair - SC State Board of Education  
Male  Female  Age: 18-25  26-50  Over 50   
Name of Committee in which interested: Richland Memorial Hospital Board of Trustees  
Reason for interest: Public health is one of the most critical issues impacting our community. I wish to serve to ensure the vitality and sustainability of this hospital.  
Your characteristics/qualifications, which would be an asset to Committee, Board or Commission:  
Six year service (Palmetto Health Board of Trustees); Former Chair - PH Community Health Services Committee; Member - Executive & Audit and Compliance Committees  
Presently serve on any County Committee, Board or Commission? SC Board of Education  
Any other information you wish to give? \*Note: See Attached Vita  
Recommended by Council Member(s): Mr. Greg Pearce (District 6)  
Hours willing to commit each month: 3-5 Hours Per Week (As needed and required)\*\*

**CONFLICT OF INTEREST POLICY**

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All statements so filed shall be signed and verified by the filer. The verification shall state that the filer has used all reasonable diligence in its preparation, and that to the best of his or her knowledge, it is true and complete.

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*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

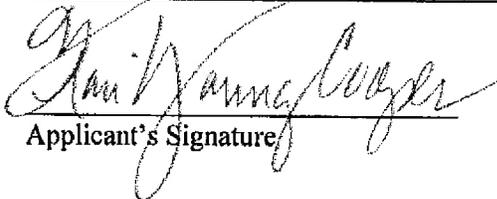
Yes \_\_\_\_\_ No  X

#### STATEMENT OF FINANCIAL OR PERSONAL INTERESTS

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes  X  No \_\_\_\_\_

If so, describe: Spouse is a Practicing Dentist in the Palmetto Health Dental Services Network. When serving prior as a Palmetto Health Trustee, I always recused myself from active voting on any matters related to this Initiative or the procurement of dentists

  
Applicant's Signature

November 17, 2015  
Date

Return to:  
Clerk of Council, Post Office Box 192, Columbia, SC 29202.  
For information, call 576-2060.

**One form must be submitted for each Committee, Board or Commission on which you wish to serve.**

**Applications are current for one year.**

Staff Use Only	
Date Received: _____	Received by: _____
Date Sent to Council: _____	
Status of Application:	<input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> On file

## **TRACI YOUNG COOPER, Ed.S., Ed.D.**

120 Stonebrook Drive \* Blythewood, South Carolina 29016 \* H: (803) 735-9938 \* C: (803) 479-5259

**Traci Young Cooper, Ed.D.** serves as Chair of the South Carolina State Board of Education representing the Fifth Judicial Circuit. From 2013-2014, Cooper served as Chair-elect of the State Board. She has worked as a secondary English language arts teacher, curriculum resource teacher, assistant administrator, assistant principal and district-level administrator. In 2002, Cooper was selected as South Carolina's *State Teacher of the Year*. During her tenure, she served as a statewide ambassador for the teaching profession and participated in a one-year residency at the *South Carolina Center for Teacher Recruitment and Retention* (now the *Center for Educator Recruitment, Retention and Advancement*). Additionally, she successfully chaired the *South Carolina Teacher Forum* comprised of the state's accomplished honor roll and district *Teachers of the Year*.

As a lifelong learner, Cooper is a graduate of Richland School District One's *Aspiring Administrators Academy*, *South Carolina Educational Policy Fellows Program*, and was a *Fulbright Memorial Fund Teacher Program* participant to Toyko, Japan. She was also named by the National Afterschool Alliance (Washington, DC) as a 2007 *National Afterschool Ambassador*.

Her acute interest in educational policy formation and public school advocacy was cemented during her service on the *South Carolina Education Oversight Committee* where she served two consecutive terms. While on the EOC, she worked with bi-partisan colleagues on the on-going review of the state's education improvement process, assessed school/school district outcomes, promoted the need for higher levels of student achievement, and evaluated the standards schools must meet to build the education system needed to compete in the 21<sup>st</sup> century.

As a Trustee for Palmetto Health Hospital, Cooper focused critically on patient safety, quality outcomes and public health. She served as Chair of the Community Health Services Committee, and was a member of the Executive Committee and Board Representative on the Total Optimum Integration (TOI) Strategic Planning (Cardiology Integration Committee). She also represented the Palmetto Health Trustees on the hospital system's *Diversity Steering Committee* and represented the hospital as a member of the South Carolina Hospital Association Board of Trustees. Cooper holds "Best On Board" certification in the *Essentials of Healthcare Governance* and *The Quality Imperative* by the South Carolina Hospital Association. She also served on the Palmetto Health Audit and Compliance Committee and is actively involved in supporting the Palmetto Health Foundation, her favorite charity.

Cooper is a lifetime member of the South Carolina Association of School Administrators, and the American Red Cross of the Midlands board of directors (Clara Barton Philanthropy Society), South Carolina Educational Television (SCETV) Endowment Board of Governors (Vice President), Junior League of Columbia (Sustainer), and University of South Carolina Education Foundation Board. She is also a member of Delta Sigma Theta Sorority, Incorporated, Jack and Jill of Columbia, and the Columbia Chapter of Moles, Incorporated.

Her recognitions include: 2014 Riley Institute at Furman University Diversity Fellow (SC Diversity Leaders Initiative Midlands Class VII), 2014 City of Columbia's 2014 *Top Women of Influence* Award Honoree (SESBM Magazine – Pyatt Media), 2002 *University of South Carolina Black Alumnus of the Year* (USC Black Alumni Council), Palmetto Health Hospital Foundation 2013 Fellow, University of South Carolina Center for Colon Cancer Research *Colon Cancer Champion*, Richland School District One/Palmetto Health Foundation's *Breast Cancer Walk Team Captain*, Providence Hospital *Red Dress Women's Heart Health Campaign Ambassador*, *National Afterschool Ambassador* (National Afterschool Alliance), *United Black Fund Hall of Fame Honoree* (United Black Fund of the Midlands), *Lincoln C. Jenkins Community Service Award* (Columbia Urban League), *Woman of Distinction* (Girl Scouts of the Congaree area), *Richard Allen Award* (Allen University), and Jack and Jill of Columbia, SC 2012 *Mother of the Year*. She is a Trustee at First Calvary Baptist Church of Columbia, South Carolina and serves as Director of Extended Day Programs for Richland County School District One. Cooper is a Commissioned Notary through June 2022.

Cooper obtained a Bachelor of Arts in English from Georgetown University; Master of Arts in Teaching from the University of South Carolina; Educational Specialist degree from South Carolina State University; and a doctorate in Educational Administration from South Carolina State University. She is married to Dr. Noble P. Cooper, Jr., and the

Coopers have three children (Carlisle Carrington – 15, Chandler Christina – 13, and Noble Cooper, III – 12), who attend the public schools of South Carolina.



**APPLICATION FOR SERVICE ON RICHLAND COUNTY  
COMMITTEE, BOARD OR COMMISSION**

**Applicant must reside in Richland County.**

Name: James L. Best  
Home Address: 1411 Medway Rd  
Telephone: (home) 254-7476 (work) 251-7113  
Office Address: 1901 Main St Suite 650 Columbia, SC 29201  
Email Address: jim.best@wfadvisors.com  
Educational Background: BA Degree USC 1989, Cannon Trust School 1995  
Professional Background: Senior Vice President - Investments Wells Fargo Advisors  
Male  Female  Age: 18-25  26-50  Over 50   
Name of Committee in which interested: Richland Memorial Hospital Board of Trustees  
Reason for interest: I would like to continue to support my community and the hospital system by serving on the Board of Trustees.  
Your characteristics/qualifications, which would be an asset to Committee, Board or Commission:  
Currently I serve as Finance Committee Chairman and have been able to support the board with my financial experience. Also I am Chair of Ronald McDonald House Board  
Presently serve on any County Committee, Board or Commission? RMH Board of Trustees  
Any other information you wish to give? \_\_\_\_\_  
Recommended by Council Member(s): Greg Pearce  
Hours willing to commit each month: As many as needed.

**CONFLICT OF INTEREST POLICY**

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All statements so filed shall be signed and verified by the filer. The verification shall state that the filer has used all reasonable diligence in its preparation, and that to the best of his or her knowledge, it is true and complete.

Any person who willfully files a false or incomplete statement of disclosure or no change of condition, or who willfully fails to make any filing required by this article, shall be subject to such discipline, including censure and disqualification from the Committee, Board or Commission, by majority vote of the council.

*Have you been convicted or pled no contest of a crime other than minor traffic violations; checking yes does not automatically preclude you from consideration for appointment.*

Yes \_\_\_\_\_ No X \_\_\_\_\_

**STATEMENT OF FINANCIAL OR PERSONAL INTERESTS**

Do you have any financial or personal interest in any business or corporation (profit or not-for-profit) that could be potentially affected by the actions of the Committee, Board or Commission?

Yes \_\_\_\_\_ No X \_\_\_\_\_

If so, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

  
Applicant's Signature

11/17/15  
Date

**Return to:**  
**Clerk of Council, Post Office Box 192, Columbia, SC 29202.**  
**For information, call 576-2060.**

**One form must be submitted for each Committee, Board or Commission on which you wish to serve.**

**Applications are current for one year.**

Staff Use Only	
Date Received: _____	Received by: _____
Date Sent to Council: _____	
Status of Application: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> On file	

2

## Destination Park Funding Summary

as recommended by the Hospitality Tax Ad Hoc Committee on 9/22/15

Project Name	Land (if separated)	Construction cost approved	Total Project Cost		Cash/Debt approved	Remaining amount needed	Estimated Debt Service*	Fund Description / Planned Debt repayment
water park	6,900,000	20,000,000	26,900,000		11,900,000	15,000,000	1,000,000	Committee recommended approval of revenue bonds backed by Hospitality Tax Funds but paid from available water park revenue.
Pinewood Lake	-	6,900,000	6,900,000		6,900,000	-	-	Council approved - \$1.4m (FY14), \$3.3m (FY15), \$2.2m (FY16). Use of Hospitality Tax Funds.
Sports Arena	-	20,000,000	20,000,000		5,000,000	15,000,000	1,000,000	Committee recommended to plan for revenue bonds paid by Hospitality Tax Funds. Item to be deferred at Council level until additional cost information is obtained related to land cost, design and operational funding levels.
Lake Murray	2,025,000	-	2,025,000		2,025,000	-	-	No funding for future development approved

\* Debt payments are estimates based on current conditions. The final debt payment will not be determine until a date of issue is determined and based on interest rates at the time of sale.

STATE OF SOUTH CAROLINA  
COUNCIL FOR RICHLAND COUNTY  
ORDINANCE NO. \_\_\_\_\_

A SECOND SUPPLEMENTAL ORDINANCE PROVIDING FOR THE ISSUANCE AND SALE OF RICHLAND COUNTY, SOUTH CAROLINA, HOSPITALITY TAX REVENUE BONDS, TAXABLE SERIES 2016, OR SUCH OTHER APPROPRIATE SERIES DESIGNATION, IN THE PRINCIPAL AMOUNT OF NOT EXCEEDING \$20,000,000; DELEGATING AUTHORITY TO THE COUNTY ADMINISTRATOR TO DETERMINE CERTAIN MATTERS WITH RESPECT TO THE BONDS; PRESCRIBING THE FORM AND DETAILS OF SUCH BONDS; AND OTHER MATTERS RELATING THERETO.

Pursuant to the authority by the Constitution of the State of South Carolina and the General Assembly of the State of South Carolina, BE IT ENACTED BY RICHLAND COUNTY COUNCIL:

Section 1. Definitions. The terms in this Section 1 and all words and terms defined in the General Bond Ordinance (except as herein otherwise expressly provided or unless the context otherwise requires), shall for all purposes of this Second Supplemental Ordinance have the respective meanings given to them in the General Bond Ordinance and in Section 1 hereof.

“Bond Purchase Agreement” if any, shall mean a Bond Purchase Agreement relating to the sale of the Series 2016 Bonds, to be dated the date of execution and delivery thereof between the underwriter(s) and the County, as amended or supplemented thereto.

“First Supplemental Ordinance” shall mean Ordinance No. 014-13HR duly enacted by the Council on March 19, 2013, authorizing the issuance of the Series 2013 Bonds.

“General Bond Ordinance” shall mean Ordinance No. 013-03HR duly enacted by the Council on March 19, 2013, authorizing the issuance from time to time of Bonds.

“Interest Payment Date” shall mean April 1 and October 1 of each year, commencing October 1, 2016, or such other date as the County Administrator may determine pursuant to Section 4 hereof.

“Principal Payment Date” shall mean April 1 of each year, commencing April 1, 2017, or such other date as the County Administrator may determine pursuant to Section 4 hereof.

“Project” shall mean the design of, constructing of, equipping of and all other costs associated with a water park facility to be located in the County.

“Series 2013 Bonds” shall mean the \$14,940,000 Richland County Hospitality Tax Refunding Revenue Bonds, Series 2013, dated April 15, 2013.

“Series 2016 Bonds” shall mean the Richland County Hospitality Tax Revenue Bonds, Taxable Series 2016, in the aggregate principal amount of not exceeding \$20,000,000 authorized to be issued hereunder.

“Series 2016 Construction Fund” shall mean the fund of the same name established pursuant to Section 11 hereof.

“Series 2016 Debt Service Fund” shall mean the fund of the same name established pursuant to Section 10 hereof to provide for the payment of the principal of and interest on the Series 2016 Bonds.

“Underwriter” shall mean such investment banking firm or firms as selected by the County Administrator upon advice from the County’s Financial Advisor.

Section 2. Certain Findings and Determinations.

The Council hereby finds and determines:

(a) Pursuant to Section 4-9-10, Code of Laws of South Carolina 1976, as amended, the County operates under the Council-Administrator form of government and the Council constitutes the governing body of the County.

(b) This Second Supplemental Ordinance supplements the General Bond Ordinance, constitutes and is a “Supplemental Ordinance” within the meaning of such quoted term as defined and used in the General Bond Ordinance, and is enacted under and pursuant to the General Bond Ordinance.

(c) The Series 2016 Bonds constitute and are “Bonds” within the meaning of the quoted word as defined and used in the General Bond Ordinance.

(d) The Hospitality Taxes pledged under the General Bond Ordinance are or will not be encumbered by any lien and charge thereon or pledge thereof, other than the pledge thereof created by the General Bond Ordinance, the First Supplemental Ordinance and this Second Supplemental Ordinance for the payment and security of the Series 2013 Bonds and the Series 2016 Bonds.

(e) There does not exist an Event of Default (as defined in the General Bond Ordinance), nor does there exist any condition which, after the passage of time or the giving of notice, or both, would constitute such an Event of Default.

(f) Pursuant to Section 4.10 of the General Bond Ordinance, the County may from time to time provide for the issuance of Bonds, the interest on which may be includable in gross income of the Holders of such Bonds for federal income taxation purposes.

(g) It is necessary and in the best interest of the County for the Council to authorize the issuance of the Series 2016 Bonds in the principal amount of not exceeding \$20,000,000 in accordance with the County Bond Act, the Hospitality Tax Act, the General Bond Ordinance and this Second Supplemental Ordinance for the purposes of funding the Project and paying the costs of issuing the Series 2016 Bonds.

(h) Pursuant to Ordinance No. 067-12HR enacted on November 13, 2012, Council adopted Written Procedures related to Tax-Exempt Debt.

Section 3. Authorization of Series 2016 Bonds.

(a) There is hereby authorized to be issued the Series 2016 Bonds designated “Richland County, Hospitality Tax Revenue Bonds, Taxable Series 2016,” in the aggregate principal amount of not exceeding \$20,000,000. The proceeds of the Series 2016 Bonds shall be used for the purposes set forth in Section 2(g) hereof.

Section 4. Delegation of Authority; Sale and Issuance of Series 2016 Bonds.

(a) The County Administrator is hereby authorized and empowered to undertake any one or more of the following actions: (a) determine the original issue date of the Series 2016 Bonds; (b) determine the aggregate principal amount of the Series 2016 Bonds; (c) determine the principal amount of each maturity of the Series 2016 Bonds; (d) determine the Interest Payment Dates and the Principal Payment Dates for the Series 2016 Bonds; (e) determine the optional redemption dates and terms of redemption of the Series 2016 Bonds; (f) determine the interest rates for the Series 2016 Bonds; (g) determine the Registrar/Paying Agent for the Bonds; (h) determine if certain of the Series 2016 Bonds are to be subject to mandatory and optional redemption; (i) determine the redemption prices of the Series 2016 Bonds subject to optional redemption; (j) determine any original issue discount or original issue premium at which the Series 2016 Bonds will be sold, or whether any Underwriter's discount or other fee will be paid to the purchasers of the Series 2016 Bonds; and (k) agree to any other terms, provisions and matters necessary or advisable to effect the issuance of the Series 2016 Bonds.

(b) The Series 2016 Bonds may be sold publicly, privately to the Underwriter, or directly to one or more purchasers in a private offering or private placement transaction. If necessary and appropriate, the County Administrator is hereby authorized and directed to approve the form of a Bond Purchase Agreement as the County Administrator shall negotiate and approve, and to execute the Bond Purchase Agreement, and deliver the same to the Underwriter, the County Administrator's execution and delivery of the Bond Purchase Agreement constituting conclusive evidence of approval of the matters therein contained. Notwithstanding the foregoing, the County Administrator is hereby authorized to take all actions, including the preparation and dissemination of requests for proposals and the preparation, publication and/or distribution of information, offering documents or private placement memoranda (which may be in the respective forms of the Bond Purchase Agreement and/or hereinafter defined Preliminary Official Statement, as applicable, together with such amendments and modifications as may be approved by the County Administrator), all relating to the County, the Series 2016 Bonds and the Hospitality Taxes, to solicit interest and receive offers from financial institutions to purchase the Series 2016 Bonds in a private offering, and to accept such offer which is in the best interest of the County and execute such documents as may be necessary in connection therewith.

(c) Notwithstanding any other provision of the Richland County Code of Ordinances, and upon recommendation of the County's Bond Counsel and Financial Advisor, the County Administrator is hereby authorized and directed to engage the services of one or more Underwriters for the Bonds.

(d) The County Administrator is hereby authorized and directed to prepare a Preliminary Official Statement, relating to a public offering of the Series 2016 Bonds (the "Preliminary Official Statement"), and to take such actions necessary to "deem final" the Preliminary Official Statement for purposes of Rule 15c2-12 promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended.

(e) The Council hereby authorizes the Final Official Statement of the County to be dated on or about the date of the execution and delivery of the Bond Purchase Agreement, relating to the Series 2016 Bonds substantially in the form of the Preliminary Official Statement, with such modifications as the County Administrator approves; the County Administrator is hereby authorized and directed to execute copies of the Final Official Statement and deliver the same to the Underwriter, which execution and delivery shall be conclusive evidence of the approval of any such modifications; and the County hereby authorizes the use of the Preliminary Official Statement and Final Official Statement and the information contained therein in connection with the public offering and sale of the Series 2016 Bonds by the Underwriter.

(f) The Council hereby authorizes and directs all of the officers and employees of the County to carry out or cause to be carried out all obligations of the County hereunder and to perform such other actions as they shall consider necessary or advisable in connection with the issuance, sale and delivery of the Series 2016 Bonds.

(g) The Council hereby authorizes the County Administrator or his designee to negotiate the terms of, and execute, in the name and on behalf of the County, and deliver investment agreements, forward delivery agreements, repurchase agreements and other agreements in connection with the Series 2016 Bonds, to prepare and solicit bids for providers of such agreements and to execute, in the name and on behalf of the County, written confirmations of any such agreements and other documents as may be necessary in connection therewith.

(h) The Series 2016 Bonds shall originally be dated the date of delivery of the Series 2016 Bonds, or such other date as the County Administrator shall determine pursuant to this Section, and shall be issued as fully registered Bonds in the denominations of \$5,000 and integral multiples of \$5,000. The Series 2016 Bonds shall be numbered and lettered in such a fashion as to maintain a proper record thereof.

(i) Unless otherwise determined by the County Administrator pursuant to this Section, the Series 2016 Bonds shall mature on the Principal Payment Dates and in the principal amounts, and bear interest payable on the Interest Payment Dates at the rates per annum (calculated on the basis of a 360-day year comprised of twelve 30-day months), as reflected thereon.

(j) Principal of and redemption premium, if any, on the Series 2016 Bonds shall be payable at the designated corporate trust office of the Paying Agent. Interest on the Series 2016 Bonds shall be payable on each Interest Payment Date, in each case to the Holders as of the immediately preceding Record Date, such interest to be paid by the Paying Agent by check or draft mailed to each Holder at the address as it appears on the Books of Registry maintained at the designated corporate trust office of the Paying Agent, and in the case of a Holder of \$1,000,000 or more in principal amount of Series 2016 Bonds, by wire transfer to an account within the continental United States upon the timely receipt of a written request of such Holder. Payment of the principal of and interest on such Series 2016 Bonds may be payable to the Holder thereof without presentation and surrender of such Series 2016 Bonds.

#### Section 5. Book-Entry System; Recording and Transfer of Ownership of the Series 2016 Bonds.

The Initial Bonds will be eligible securities for the purposes of the Book-Entry System of transfer maintained by the Securities Depository, and transfers of beneficial ownership of the Initial Bonds shall be made only through the Securities Depository and its participants in accordance with rules specified by the Securities Depository. Such beneficial ownership must be of \$5,000 principal amount of Initial Bonds of the same Series and maturity or any integral multiple of \$5,000.

The Initial Bonds will be issued in fully-registered form, as a single bond representing the entire principal amount of the Series 2016 Bonds or one Series 2016 Bond for each of the maturities of the Series 2016 Bonds, in the name of Cede & Co., as the nominee of the Securities Depository. When any principal of, premium, if any, or interest on the Initial Bonds becomes due, the County shall transmit or cause the Paying Agent to transmit to the Securities Depository an amount equal to such installment of principal, premium, if any, and interest. Such payments will be made to Cede & Co. or other nominee of the Securities Depository as long as it is owner of record on the applicable Record Date. Cede & Co. or other nominee of the Securities Depository shall be considered to be the owner of the Initial Bonds so registered for all purposes of this Second Supplemental Ordinance, including, without limitation, payments as aforesaid and receipt of notices. The Securities Depository shall remit such payments to the Beneficial Owners of the Series 2016 Bonds or their nominees in accordance with its rules and regulations.

Notices of redemption of the Initial Bonds or any portion thereof shall be sent to the Securities Depository in accordance with the provisions of the General Bond Ordinance.

The Securities Depository is expected to maintain records of the positions of Participants in the Initial Bonds, and the Participants and persons acting through Participants are expected to maintain records of the Beneficial Owners in the Initial Bonds. The County, the Trustee, the Registrar and the Paying Agent make no assurances that the Securities Depository and its Participants will act in accordance with such rules or expectations on a timely basis, and the County, the Trustee, the Registrar and the Paying Agent shall have no responsibility for any such maintenance of records or transfer of payments by the Securities Depository to its Participants, or by the Participants or persons acting through Participants to the Beneficial Owners.

The County, the Trustee, the Paying Agent and the Registrar may treat the Securities Depository (or its nominee) as the sole and exclusive owner of the Series 2016 Bonds registered in its name for the purpose of payment of the principal of, interest or premium, if any, on the Series 2016 Bonds, giving any notice permitted or required to be given to Bondholders under the General Bond Ordinance or this Second Supplemental Ordinance, registering the transfer of the Series 2016 Bonds, obtaining any consent or other action to be taken by Bondholders and for all other purposes whatsoever, and shall not be affected by any notice to the contrary. The County, the Trustee, the Paying Agent and the Registrar shall not have any responsibility or obligation to any Participant, any person claiming a beneficial ownership interest in the Series 2016 Bonds under or through the Securities Depository or any Participant, or any other person which is not shown on the Books of Registry of the County maintained by the Registrar as being a Bondholder, with respect to: the accuracy of any records maintained by the Securities Depository or any Participant or the maintenance of any records; the payment by the Securities Depository or any Participant of any amount in respect of the principal of, interest or premium, if any, on the Series 2016 Bonds; the sending of any transaction statements; the delivery or timeliness of delivery by the Securities Depository or any Participant of any notice which is permitted or required to be given to Bondholders thereunder; the selection of Bondholders to receive payments upon any partial redemption of the Series 2016 Bonds; or any consent given or other actions taken by the Securities Depository as a Bondholder.

If (a) the Securities Depository determines not to continue to act as securities depository for the Series 2016 Bonds, and gives reasonable notice to the Registrar or the County, or (b) the County has advised the Securities Depository of the County's determination that the Securities Depository is incapable of discharging its duties, then the County shall attempt to retain another qualified securities depository to replace the Securities Depository. Upon receipt by the County or the Registrar of the Initial Bonds together with an assignment duly executed by the Securities Depository, the County shall execute and deliver to the successor depository, the Series 2016 Bonds of the same principal amount, interest rate and maturity. If the County is unable to retain a qualified successor to the Securities Depository, or the County has determined that it is in its best interest not to continue the Book-Entry System of transfer or that interests of the Beneficial Owners of the Series 2016 Bonds might be adversely affected if the Book-Entry System of transfer is continued (the County undertakes no obligation to make any investigation to determine the occurrence of any events that would permit it to make any such determination), and has made provision to so notify Beneficial Owners of the Series 2016 Bonds by mailing an appropriate notice to the Securities Depository, upon receipt by the County of the Initial Bonds together with an assignment duly executed by the Securities Depository, the County shall execute, authenticate and deliver to the Securities Depository Participants the Series 2016 Bonds in fully-registered form, in authorized denomination; provided, however, that the discontinuation of the Book-Entry System of registration and transfer with respect to the Series 2016 Bonds or the replacement of the Securities Depository or any successor depository shall be subject to the applicable rules and procedures of the Securities Depository or such successor depository on file or otherwise approved by the Securities and Exchange Commission.

Section 6. Optional Redemption of Series 2016 Bonds. Such of the Series 2016 Bonds as may be determined by the County Administrator pursuant to Section 4 hereof shall be subject to redemption prior to maturity, at the option of the County, in whole or in part at any time in such order of their maturities as the County shall determine and by lot within a maturity, at the respective redemption prices with respect to each Series 2016 Bond, expressed as a percentage of principal amount of the Series 2016 Bonds to be redeemed, as shall be determined by the County Administrator pursuant to Section 4 hereof, together, in each such case, with the interest accrued on such principal amount to the date fixed for redemption. The Trustee shall give notice of redemption of the Series 2016 Bonds by first-class mail, postage prepaid, to the Holders thereof as shown on the Books of Registry of the County not less than five (5) Business Days prior to the date fixed for the redemption thereof.

Section 7. Mandatory Redemption of Series 2016 Bonds. Such of the Series 2016 Bonds as the County Administrator shall determine pursuant to Section 4 hereof shall be subject to mandatory redemption at a redemption price equal to the principal amount of the Series 2016 Bonds to be redeemed, together with interest accrued from the date of redemption, in the years and in the amounts determined by the County Administrator, pursuant to Section 4 hereof.

At its option, to be exercised on or before the sixtieth (60th) day prior to any mandatory redemption date, the County may (i) deliver to the Trustee for cancellation Series 2016 Bonds which are subject to mandatory redemption in any aggregate principal amount desired or (ii) receive a credit in respect of its mandatory redemption obligation for any such Series 2016 Bonds which, prior to such date, have been purchased or redeemed (otherwise than through the operation of the mandatory redemption requirement) by the County and cancelled by the Trustee and not theretofore applied as a credit against any mandatory redemption obligation. Each Series 2016 Bond so delivered or previously purchased or redeemed shall be credited by the Trustee, at one hundred percent (100%) of the principal amount thereof, to the obligation of the County on those respective mandatory redemption obligations in chronological order or such other manner as directed in writing by the County to the Trustee, and the principal amount of the Series 2016 Bonds to be redeemed by operation of the mandatory redemption requirement shall be accordingly reduced.

The Trustee, without further authorization or direction from the County, shall give notice of all mandatory redemptions within the time periods and in the manner specified in Article V of the General Bond Ordinance.

Section 8. Payment of the Series 2016 Bonds. The Series 2016 Bonds, together with the interest thereon, shall be payable, in such coin or currency of the United States of America which at the time of such payment is legal tender for public and private debts, solely from the Hospitality Taxes of the County in accordance with the provisions of the General Bond Ordinance and this Second Supplemental Ordinance. The Series 2016 Bonds shall be secured by a pledge of Hospitality Taxes on a parity with the pledge of Hospitality Taxes securing the payment of the 2013 Bonds and any Additional Bonds issued in compliance with the provisions of the General Bond Ordinance.

The Series 2016 Bonds do not constitute an indebtedness of the County within any State constitutional provision (other than Article X, Section 14, Paragraph 10 of the South Carolina Constitution authorizing obligations payable solely from special sources not involving revenues from any tax or license) or statutory limitation. The Series 2016 Bonds shall not be a debt of the County, nor a charge, lien or encumbrance, legal or equitable, upon any property of the County or upon any income, receipts or revenues thereof, other than the aforesaid Hospitality Taxes of the County. No recourse shall be had for the payment of the Series 2016 Bonds or the interest thereon against the general fund of the County, nor shall the credit or taxing power of the County be deemed to be pledged thereto. The full

faith, credit and taxing powers of the County are not pledged to the payment of the principal of or interest on the Series 2016 Bonds.

Section 9. Form of the Series 2016 Bonds. The Series 2016 Bonds shall be in substantially the form set forth in Exhibit A hereto, with such necessary or appropriate variations, omissions and insertions as are incidental to the series, numbers, denominations, maturities, dates, interest rate or rates, redemption provisions, the purpose of issuance and other details thereof or as are otherwise permitted or required by law or by the General Bond Ordinance, including this Second Supplemental Ordinance. The Series 2016 Bonds shall be executed in the name and on behalf of the County by the manual or facsimile signatures of the Chair of Council and Clerk to Council.

Section 10. Establishment of Series 2016 Debt Service Fund. In accordance with Section 6.6 of the General Bond Ordinance, the Series 2016 Debt Service Fund is hereby directed to be established by the Trustee on the date of the original delivery of the Series 2016 Bonds for the benefit of the Holders of the Series 2016 Bonds.

Section 11. Establishment of the Series 2016 Construction Fund and the Disposition of Proceeds of Series 2016 Bonds.

(a) Pursuant to Section 6.8 of the General Bond Ordinance, there is hereby established the Series 2016 Construction Fund to be held by the Custodian, the moneys in which shall be used to defray the costs of the Project and to pay any Costs of Acquisition and Construction with respect to the facilities so financed. Withdrawals from the Series 2016 Construction Fund shall be made in the manner withdrawals from other funds of the County are made.

(b) The proceeds derived from the sale of the Series 2016 Bonds, net of any original issue discount or premium (or both), any Underwriter's discount or fees payable to the purchaser thereof, shall be deposited with into the Series 2016 Construction Fund for funding the Project. The estimated costs of issuance shall be deposited with the County Treasurer and disbursed as directed by the County. After payment of all costs of issuance, any amounts remaining shall be deposited into the Series 2016 Construction Fund.

The respective amounts specified in this Section 11 shall be determined by the County Administrator upon delivery of the Series 2016 Bonds.

Section 12. Continuing Disclosure. The County Administrator is hereby authorized and directed to approve the form of, and execute and deliver, a continuing disclosure undertaking, related to the Series 2016 Bonds as required by applicable law, and the County hereby covenants and agrees that it will comply with and carry out all of the provisions of such continuing disclosure undertaking. Notwithstanding any other provision of this Second Supplemental Ordinance, failure of the County to comply with the continuing disclosure undertaking shall not be considered an Event of Default, and no liability for damages shall attach therefor. The sole remedy for such failure to comply shall be that any Bondholder may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the County to comply with their obligations under this paragraph.

Section 13. Headings. The headings and titles of the several sections hereof shall be solely for convenience of reference and shall not affect the meaning, construction, interpretation or effect of this Second Supplemental Ordinance.

Section 14. Notices. All notices, certificates or other communications hereunder or under the General Bond Ordinance shall be sufficiently given and shall be deemed given when mailed by registered mail, postage prepaid, or given when dispatched by telegram addressed as follows:

If to the County:

Richland County, South Carolina  
Post Office Box 192  
Columbia, South Carolina 29202  
Attn: County Administrator

If to the Paying Agent, the Registrar, or the Trustee:

Regions Bank  
[TO BE PROVIDED]

The County, the Paying Agent, the Registrar, the Trustee and the Escrow Agent may, by notice given to the other parties, designate any further or different addresses to which subsequent notices, certificates or other communications shall be sent.

Section 15. Repeal of Inconsistent Ordinances and Resolutions. All ordinances and resolutions of the County, and any part of any ordinance or resolution, inconsistent with this Second Supplemental Ordinance are hereby repealed to the extent of such inconsistency.

Section 16. Severability. If any sections, phrase, sentence or portion of this Second Supplemental Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not attest the validity of the remaining portions thereof.

Section 17. Execution of Documents. The Council hereby authorizes any one or more of the following officials to execute such documents and instruments as necessary to effect the issuance of the Series 2016 Bonds: Chair of the Council, County Administrator, Clerk to the Council, Chief Financial Officer and County Attorney.

Section 18. Engagement and Approval of Professionals. The Council hereby retains McNair Law Firm, P.A. and The Law Office of Ernest W. Cromartie III, LLC, as co-bond counsel and Compass Municipal Advisors, LLC, as financial advisor in connection with the issuance of the Series 2016 Bonds. The County Administrator is authorized to execute such contracts, documents or engagement letters as may be necessary and appropriate to effectuate these engagements. The Council hereby approves the engagement of Parker, Poe, Adams & Bernstein, LLP and Jabber & Isaac P.A. to serve as co-Disclosure Counsel or co-Underwriter's Counsel, as appropriate.

All rules, regulations, resolutions and parts thereof, procedural or otherwise, in conflict herewith or the proceedings authorizing the issuance of the Series 2016 Bonds are, to the extent of such conflict, hereby repealed and this Second Supplemental Ordinance shall take effect and be in full force from and after its adoption.

Enacted this \_\_\_\_ day of \_\_\_\_\_, 2016.

RICHLAND COUNTY, SOUTH CAROLINA

By: \_\_\_\_\_  
\_\_\_\_\_, Chair  
Richland County Council

(SEAL)

ATTEST THIS \_\_\_\_ DAY OF  
\_\_\_\_\_, 2016

\_\_\_\_\_  
Clerk to Council

RICHLAND COUNTY ATTORNEY'S OFFICE

\_\_\_\_\_  
Approved As To LEGAL Form Only  
No Opinion Rendered As To Content

Date of First Reading:           December 8, 2015  
Date of Second Reading:  
Date of Third Reading:

**FORM OF BOND**

[DTC Legend]

**RICHLAND COUNTY, SOUTH CAROLINA  
HOSPITALITY TAX REVENUE BOND, TAXABLE SERIES 2016**

No. R-\_\_\_\_

Interest Rate                                      Maturity Date                                      Issue Date                                      CUSIP

Registered Holder:

Principal Amount:

RICHLAND COUNTY, SOUTH CAROLINA (the “County”) a public body corporate and politic and a political subdivision of the State of South Carolina (the “State”), created and existing by virtue of the laws of the State, acknowledges itself indebted and for value received hereby promises to pay, solely as hereinafter provided, to the Registered Owner named above or registered assigns, the Principal Amount set forth above on the Maturity Date stated above, unless this Bond be subject to redemption and shall have been redeemed prior thereto as hereinafter provided, upon presentation and surrender hereof at the corporate trust office of \_\_\_\_\_ in \_\_\_\_\_, as trustee (the “Trustee”), and to pay interest on such Principal Amount at the annual Interest Rate stated above (calculated on the basis of a 360-day year of twelve (12) 30-day months), until the obligation of the County with respect to the payment of such Principal Amount shall be discharged. Interest on this Bond shall be payable in semiannual installments on \_\_\_\_\_ 1 and \_\_\_\_\_ 1 of each year beginning \_\_\_\_\_, 2016 (each, an “Interest Payment Date”), until maturity or earlier redemption. All payments shall be paid to the person in whose name this Bond is registered at the close of business on the fifteenth day of the calendar month (each, a “Record Date”) preceding each Interest Payment Date or Principal Payment Date (as defined in the hereinafter defined Ordinances). The payments shall be payable by check or draft mailed at the times provided herein to the person in whose name this Bond is registered at the address shown on the registration books of the County held by \_\_\_\_\_, as registrar (the “Registrar”), or, in the case of a Registered Holder of \$1,000,000 or more in principal amount of this Bond, by wire transfer to on account within the continental United States upon the timely receipt of a written request of such Registered Holder. The payments are payable in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public and private debts.

THIS BOND HAS BEEN ISSUED UNDER THE PROVISIONS OF TITLE 6, CHAPTER 17 AND CHAPTER 15, CODE OF LAWS OF SOUTH CAROLINA, 1976, AS AMENDED (COLLECTIVELY, THE “ACT”); THE BONDS DO NOT CONSTITUTE AN INDEBTEDNESS OF THE COUNTY WITHIN THE MEANING OF ANY STATE CONSTITUTIONAL PROVISION (EXCEPT ARTICLE X, SECTION 14(10) OF THE STATE CONSTITUTION AUTHORIZING INDEBTEDNESS PAYABLE SOLELY FROM A SOURCE OF REVENUE DERIVED OTHER THAN A TAX OR LICENSE) OR STATUTORY LIMITATION. THE COUNTY IS NOT OBLIGATED TO PAY ANY OF THE BONDS OR THE INTEREST THEREON EXCEPT FROM HOSPITALITY FEES (AS DEFINED IN THE ORDINANCES). THE BONDS ARE NOT GENERAL OBLIGATIONS OF THE COUNTY, THE STATE, OR ANY POLITICAL SUBDIVISION THEREOF AND NEITHER THE

FULL FAITH AND CREDIT NOR THE GENERAL CREDIT NOR TAXING POWERS OF THE COUNTY, THE STATE OR ANY POLITICAL SUBDIVISION THEREOF.

This Bond shall not be valid or obligatory for any purpose until the Certificate of Authentication hereon shall have been duly executed by the Trustee.

This Bond is one of an issue of bonds of the County in the aggregate principal amount of \_\_\_\_\_ Million Dollars (\$\_\_\_\_\_) (the "Bonds") of like tenor, except as to number, rate of interest, date of maturity and redemption provides, issued pursuant to and in accordance with the Constitution and statutes of the State, including particularly the Act, Ordinance No. 013-013HR duly enacted by the Council of the County (the "Council") on March 19, 2013 (the "General Bond Ordinance"), and Ordinance No. \_\_\_\_\_ duly enacted by the Council on \_\_\_\_\_, 2016 (the "Second Supplemental Ordinance") (the General Bond Ordinance and the Second Supplemental Ordinance are herein collectively referred to as the "Ordinances") for the purpose of providing moneys, to , and paying costs of issuance of the Bonds.

Certain capitalized terms used herein and not otherwise defined shall have the meanings ascribed thereto in the Ordinances. Certified copies of the Ordinances are on file in the office of the Trustee and in the office of the Clerk of Court for Richland County, South Carolina.

The Ordinances contain provisions defining terms, set forth the revenues pledged for the payment of the principal of and interest on this Bond and the Bonds of other series herewith which may hereafter be issued on a parity herewith under the Ordinances; set forth the nature, extent and manner of enforcement of the security of this Bond and of such pledge, and the rights and remedies of the Holder hereof with respect thereto; set forth the terms and conditions upon which and the extent to which the Ordinances may be altered, modified and amended; set forth the terms and conditions upon which this Bond is issued upon which other bonds may be hereinafter issued payable as to principal, premium, if any, and interest on a parity with this Bond and equally and ratably secured herewith; sets forth the rights, duties and obligations of the County thereunder; and set forth the terms and conditions upon which the pledge made in the Ordinances for the security of this Bond and upon which the covenants, agreements and other obligations of the County made therein may be discharged at or prior to the maturity or redemption of this Bond with provisions for the payment thereof in the manner set forth therein. Reference is hereby made to the Ordinances to all of the provisions of which any holder of this Bond by the acceptance hereof thereby assents. The provisions of the Act and the Ordinances shall be a contract with the holder of this Bond.

This Bond and the series of Bonds of which it is one and the interest thereon are special obligations of the County and are secured by and payable solely from, and secured equally and ratably by a pledge of and lien upon, the Hospitality Taxes imposed and collected by the County.

The General Bond Ordinance authorizes the issuance of additional bonds on a parity with the Bonds of this issue which, when issued in accordance with the provisions of the General Bond Ordinance, will rank equally and be on a parity herewith.

This Bond and the interest hereon are exempt from all State, county, municipal, school district, and all other taxes or assessments imposed within the State, direct or indirect, general or special, whether imposed for the purpose of general revenue or otherwise, except inheritance, estate, transfer and certain franchise taxes.

This Bond is transferable, as provided in the Ordinances, only upon the registration books of the County kept for that purpose and maintained by the Registrar, by the Holder hereof in person or by his duly authorized attorney, upon (a) surrender of this Bond and an assignment with a written instrument of transfer satisfactory to the Registrar, duly executed by the Holder hereof or his duly authorized attorney and (b) payment of the charges, if any, prescribed in the Ordinances. Thereupon a Bond of the same aggregate principal amount, maturity and interest rate shall be issued to the transferee in exchange therefor as provided in the Ordinances. The County, the Trustee and the Registrar may deem and treat the person in whose name this Bond is registered as the absolute owner hereof for the purpose of receiving payment of or on account of the principal or redemption price hereof and interest due hereon and for all other purposes.

For every exchange or transfer of this Bond, the County or the Trustee or Registrar, as the case may be, may make a charge sufficient to reimburse it for any tax, fee or other governmental charge required to be paid with respect to such exchange or transfer.

[Redemption Provisions]

If less than all the Bonds of any maturity are called for redemption, the Bonds of such maturity to be redeemed shall be selected at random by the Trustee. In the event any of the Bonds or portions thereof are called for redemption, the Trustee shall give notice, in the name of the County, of redemption of Bonds by first-class mail, postage prepaid, to the Holder thereof as shown on the Books of Registry of the County not less than thirty (30) days and not more than sixty (60) days prior to the date fixed for the redemption thereof. If this Bond be redeemable and shall have been duly called for redemption and notice of the redemption hereof mailed as aforesaid, and if on or before the date fixed for such redemption, payment thereof shall be duly made or provided for, interest hereon shall cease or accrue from and after the redemption date hereof.

It is hereby certified and recited that all conditions, acts and things required by the Constitution and statutes of the State to exist, be performed or happen precedent to or in the issuance of this Bond, exist, have been performed and have happened, that the amount of this Bond, together with all other indebtedness of the County, does not exceed any limit prescribed by such Constitution or statutes.

This Bond shall not be valid or obligatory for any purpose until the Certificate of Authentication hereon shall have been duly executed by the Trustee.

IN WITNESS WHEREOF, RICHLAND COUNTY, SOUTH CAROLINA has caused this Bond to be signed by the manual or facsimile signature of its Chair to Council, its corporate seal to be reproduced hereon and the same to be attested by the manual or facsimile signature of its Clerk to Council.

RICHLAND COUNTY, SOUTH CAROLINA

By: \_\_\_\_\_  
Chairman, Richland County Council

(SEAL)  
ATTEST:

By: \_\_\_\_\_  
Clerk to Council

**FORM OF CERTIFICATE OF AUTHENTICATION**

This Bond is one of the Bonds of the issue described in the within mentioned Ordinance.

\_\_\_\_\_, as Trustee

By: \_\_\_\_\_  
Its: \_\_\_\_\_

Date: \_\_\_\_\_

**FORM OF ASSIGNMENT**

FOR VALUE RECEIVED the undersigned hereby sells, assigns and transfers unto

\_\_\_\_\_  
(please print or type name and address of Transferee and Social Security or other identifying number of Transferee)

the within Bond and all rights and title thereunder, and hereby irrevocably constitutes and appoints attorney to transfer the within Bond on the books kept for registration thereof, with full power of substitution in the premises.

Date: \_\_\_\_\_

STAMP Language

Signature Guaranteed: \_\_\_\_\_

NOTICE: Signature(s) must be guaranteed  
By an institution which is a participant in the  
Securities Transfer Agent Medallion Program  
(STAMP) or similar program.

NOTICE: The signature to this assignment  
must correspond with name as it appears  
upon the face of the within bond in every  
particular, without alteration or enlargement  
or any change whatever.

IT IS HEREBY CERTIFIED that the following is a true and correct copy of the approving opinion of  
McNair Law Firm, P.A., Columbia, South Carolina, the original of which was manually executed, dated and  
issued as of the date of the delivery of and payment for the bonds, and a copy of which is on file with the  
County.

RICHLAND COUNTY, SOUTH CAROLINA

By: \_\_\_\_\_  
Clerk to Council