“Addressing Community Health Concerns near the Radford Army Ammunition Plant”

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PROJECT FOCUS
In response to ongoing community concerns regarding potential environmental effects of the Radford Army Ammunition Plant on human health, Virginia Tech students will collaborate with Pulaski County Board of Supervisors and Montgomery County Board of Supervisors to provide additional information about the presence of pollutants.

PROJECT DETAILS

Course Number, Name, and Instructor
APS 4094: Appalachian Community Research, Emily Satterwhite

Community Partners

Pulaski County Board of Supervisors
Contacts: Joe Guthrie, Cloyd District; Jonathan D. Sweet, County Administrator

Montgomery County Board of Supervisors
Contacts: Chris Tuck, Chair, and District B; Craig Meadows, County Administrator

Need
ProPublica’s July 20, 2017, publication of “Open Burns, Ill Winds”¹ led to a resurgence of interest and concern surrounding the public health effects of the Radford Army Ammunition Plant. The town council of Blacksburg, Virginia, passed a resolution² that included the statements of concern regarding toxic emissions related to RAAP and regarding high rates of thyroid cancer here in the New River Valley. The resolution

- “strongly urges the Department of Defense, EPA, Virginia Department of Environmental Quality, and other responsible agencies to immediately address impacts to air, water, soil, and human quality of life in the Town of Blacksburg and Montgomery County”;
- requests that RAAP “Adequately test and model air, water, and soil within the RAAP property and surrounding area...; and
- requests that RAAP “Share all non-classified environmental and health data with the community, and establish a public data center to access, organize, map, and analyze this taxpayer-owned data.”

While the Town of Blacksburg per se does not constitute distressed area within Appalachia, the residents in closest proximity to RAAP are working class families

¹ https://www.propublica.org/article/military-pollution-open-burns-radford-virginia
in rural southeastern Pulaski County, VA, and rural northwestern Montgomery County, VA.

The Boards of Supervisors for both Pulaski County and Montgomery County have expressed an interest in having a better understanding of potential health risks related to the presence of RAAP so that they might better allay citizens’ fears or take appropriate actions. Both Boards have submitted a letter of intent to partner with our Appalachian Community Research course to identify citizen concerns and to facilitate access to public schools in the proximity.

Because RAAP is such an important yet contentious employer for the New River Valley, and because RAAP’s plant extends into both counties, it is advisable politically and logistically to partner with both boards of supervisors.

Overview of the project, including its central focus
In response to community partners’ concerns, and in collaboration with the BOS for Pulaski and Montgomery Counties, students enrolled in our Fall 2018 Appalachian Community Research course will

- Seek out and catalogue residents’ concerns about the Radford arsenal.
- Identify and collate existing relevant studies and data and write a literature review.
- Conduct air sampling for carcinogenic organic compounds (and possibly also for lead) on up to 10 properties in the vicinity of RAAP at the request of residents and school administrators. Students will be trained and supervised by researchers in the Department of Civil and Environmental Engineering.
- Students will help our community partners increase residents’ understanding of scientific appraisals of RAAP’s environmental effects.

Number and description of planned meetings with the community partner
Representatives of each BOS will meet with students at the opening of the semester. Students will engage in follow-up meetings with Joe Guthrie, Pulaski supervisor, and Craig Meadows, County Administrator for Montgomery County. These officials have agreed to help connect students to citizens who have expressed concerns about RAAP emissions. Montgomery County has requested that students attend at least one BOS meeting to update the Board as the project progresses.

At the close of the research project, students will make presentations of their findings to Pulaski Co BOS and Montgomery Co BOS.
Goals/Objectives
Our research will help “build community capacity in order to shape a positive future for Appalachia” by contributing to

Goal 2: Ready Workforce. Our research will lead to better understanding of health concerns and potential health effects. RAAP is considered a significant employer for both counties, and any information that may alleviate local concerns regarding air pollutants is highly desired by county officials. At the same time, if the students do identify air toxins of concern, County Boards of Supervisors may draw on that research to request that local departments of health and/or RAAP initiate interventions that promote public health.

Goal 1: Economic Opportunities. If our research results in fewer concerns regarding human health near RAAP (either because of successful interventions or because of better understanding of the nature of emissions), it may enhance efforts at recruitment and retention of skilled workers. Currently the RAAP site has additional space available for rent; accurate assessments of air pollutants may facilitate recruitment of new businesses to the plant.

Goal 5: Leadership and Community Capacity. Our students’ research will build the capacity of current leaders and citizens to engage with one another and across multiple sectors to address concerns that may affect community development.

Project Outcomes:
- Students and faculty will attend and participate in the Washington conference on November 30-December 1, 2018 through a presentation of their findings and through active participation in discussion and questions of other presentations;
- At the ARC conference, students will display a poster of their project and their findings;
- Students will make presentations to Pulaski and Montgomery County BOS;
- Students will be encouraged to participate in the March 2019 Appalachian Studies Association conference in Ashville, North Carolina;
- Project director Emily Satterwhite commits to submitting to the ARC a final report of the project’s findings by May 31, 2019;
- Virginia Tech and the project director commit to using project funds appropriately and within the time period allocated. Virginia Tech IRB approval will be sought.

Project Impact
We expect to gain a better understanding of community concerns regarding RAAP and hope to increase residents’ understanding of scientific appraisals of RAAP’s environmental effects. If we identify concerns related to lead or carcinogenic organic compounds outside nearby homes and schools, we hope to work with RAAP on remediation efforts. We hope to improve lines of communication and possibly trust between RAAP and the surrounding communities. Already, County Boards of Supervisors have experienced immense gratitude from constituents who have long voiced concerns about RAAP. RAAP has welcomed our involvement and expressed an eagerness to address long-standing community tensions; we hope that our project will contribute to an ongoing sense of voice and agency on the part of citizens in relation to RAAP.
Students will gain skills and confidence in engaging the public and communicating information regarding science and technology related to public health. We expect to include documentation from the partner organizations on the impact of the project, including their increased awareness of the work of the ARC locally.

Rural Environments faculty affiliates will vet the students’ literature review and produce a white paper summarizing findings and communicating the most compelling avenues for next steps.

Project findings will be disseminated broadly via the web with assistance from our Appalachian Transition Fellow, Olivia Lowery.

We expect to gain a better understanding regarding compelling avenues for future research relevant to human health in the New River Valley.
April 26, 2018

RE: RAAP STUDY SUPPORT LETTER – PULASKI COUNTY, VA

Dr. Satterwhite,

I am writing in reference to your request for the County of Pulaski to participate as a partner in a study of some of the potential environmental and health impacts of the Radford Army Ammunition Plant (RAAP). As you know, the RAAP is located along both sides of the New River that borders Pulaski County and Montgomery County. The RAAP, which was built to help America arm itself during World War II, has been an important part of our local and regional economy for over 75 years while providing vital ammunition and propellants to our Armed Forces.

For many years, we have heard citizen concerns of some of the practices and procedures in the manufacturing processes at the RAAP. We take these concerns seriously, so we appreciate efforts such as yours to help us in local government and our citizens better understand the science surrounding these issues. We are also appreciative that the leadership of the RAAP has recently been proactive in communicating with citizens and has expressed a willingness to participate in scientific studies with researchers from Virginia Tech.

With that in mind, the Board of Supervisors of Pulaski County is willing to act as a partner with your group from Virginia Tech so long as certain stipulations are agreeable:

1) This study meets with the approval and has the support of the leadership at RAAP.
   a. Based on conversations that Supervisor Guthrie has had with Lt. Col. Scott and others at RAAP, we are satisfied that this condition has been met.

2) This study will provide us with useful new information.
   a. Based on the information below, which was copied from the outline of your proposal, of what we can expect from our partnership with your group, we are satisfied that this stipulation is met and that your study will provide us with new and useful information while also compiling knowledge that has been gained from past work.

“In Fall 2018, EHHRC affiliates will collaboratively teach APS 4094: Appalachian Community Research at Virginia Tech. Students will:
   a. Catalogue residents’ concerns about the Radford arsenal
   b. Identify, collate, and write a literature review of existing relevant studies and data. Rural Environments affiliates will vet the students’ work and produce a white paper summarizing findings and communicating the most compelling avenues for next steps.
   c. Conduct air sampling for carcinogenic organic compounds and possibly also for lead on up to 10 properties in the vicinity of RAAP at the request of residents.
d. Make presentations to the Appalachian Regional Commission in Washington, DC, and to local community partners and will also attempt to disseminate findings more broadly (for example, via the web).“

3) This study will assist the Pulaski County Board of Supervisors and our staff answer questions from concerned citizens regarding the RAAP and give us enhanced contact with researchers who can be sources of information for us
   a. Based on our conversations regarding the follow-up we will receive from the students and faculty who participated in the study, and their willingness to speak to our Board after the study is completed, we are satisfied that this stipulation will be met when the time comes.

4) We require that Montgomery County be invited to participate as a partner. While our participation is not contingent upon their acceptance of the invitation to participate, we will insist that as a courtesy to our neighboring locality that shares the RAAP, that they at least be informed of the study, be aware of our participation in it, and be invited to join us in partnering with your group
   a. Supervisor Guthrie toured the facility along with a group that included two supervisors from Montgomery County. We understand that Montgomery County is interested in partnering in the project and we will be delighted if they do. Therefore, this stipulation has been met.

Furthermore, we are aware that as part of our partnership in this study, you would like for at least one representative from our local government to meet with the students (and possibly researchers as well) a few times during the course of the study. We are willing to meet that stipulation. Supervisor Joe Guthrie and myself will be your contacts for that. With those provisions being met, please regard the County of Pulaski as a willing partner with your study.

Please let me know if you have any further questions regarding this matter.

Best Regards,

Jonathan D. Sweet, ICMA-CM
County Administrator
April 26, 2018

Emily Satterwhite
Associate Professor
Religion and Culture
Virginia Tech
344 Lane Hall
Blacksburg, VA 24061

Dear Dr. Satterwhite:

On behalf of the Board of Supervisors, I am writing in reference to your request for Montgomery County to participate as a partner in a study of potential environmental and health impacts of the Radford Army Ammunition Plant (RAAP), which is located along the New River and border both Montgomery County and Pulaski County.

The RAAP has been an important part of our regional economy for more than 75 years; however, citizens have voiced concerns about potential environmental impacts in their processes at the facility. We appreciate your efforts to help local government and our citizens better understand the science surrounding these possible impacts. We are also appreciative that the senior leadership of the RAAP has been proactive in communicating with citizens and has expressed a willingness to participate in scientific studies with researchers from your team.

The Board of Supervisors is willing to act as a partner with your group from Virginia Tech if the following stipulations are agreeable:

1. **This study meets with the approval and has the support of the leadership at RAAP.**
   - Based on conversations that Supervisors Fijalkowski and Bohn have had with Lt. Col. Scott and others at RAAP, we are satisfied this condition has been met.

2. **This study will provide useful new information.**
   - Based on the information below, which was copied from the outline of your proposal of what we can expect from our partnership with your group, we are satisfied that this stipulation is met and that your study will provide us with the new and useful information.
"In Fall 2018, EHHRC affiliates will collaboratively teach APS 4094: Appalachian Community Research at Virginia Tech. Students will: a) Catalogue residents' concerns about the Radford arsenal; b) Identify, collate, and write a literature review of existing relevant studies and data. Rural Environments affiliates will vet the students' work and produce a white paper summarizing findings; c) Conduct air sampling for carcinogenic organic compounds and possibly also for lead on up to 10 properties in the vicinity of RAAP at the request of residents; and d) Make presentations to the Appalachian Regional Commission in Washington, DC, and to local community partners and will also attempt to disseminate findings more broadly (for example, via the web)."

3. This study will assist the Montgomery County Board of Supervisors and our staff to answer questions from concerned citizens regarding the RAAP and give us enhanced contact with researchers who can be sources of information for us.
   • Based on our conversations regarding the proposed follow-up we will receive from the students and faculty who participated in the study, and their willingness to speak to our Board after the study is completed, we are satisfied that this stipulation will be met.

We are aware that as part of our partnership in this study, you would like for at least one representative from our local government to meet with the students (and possibly researchers as well) a few times during the course of the study. We are willing to meet that stipulation. We will discuss this with our Board, and let you know which Board members are interested in participating.

Montgomery County is pleased to serve as a partner with your study. Please let me know if you have any questions or concerns regarding this matter.

Best Regards,

Craig Meadows
County Administrator
County of Montgomery

FCM/jk

c: Board of Supervisors
   Dr. Mark Miear, Superintendent, Montgomery County Public Schools