National Bio and Agro-Defense Facility Update

Will the Plum Island Animal Disease Center make a move inland to Kansas?

*by **Kelli Fulkerson,** API intern*

Will the Plum Island Animal Disease Center (PIADC) move inland to become the new National Bio and Agro-Defense Facility (NBAF)? This question has been on the table since October 2003, after the Department of Homeland Security (DHS) conducted an in-depth assessment of the PIDAC as part of a major modernization plan. At the time, DHS officials said there were no plans to upgrade the biocontainment facility.

After completion of the assessment, DHS concluded that the 50-year-old facility had become increasingly costly to maintain, and laboratory space could no longer support the increasing research demands. This resulted in DHS creating a mission to replace the existing PIADC with a new one.

When DHS made the final decision to build a new facility, 29 organizations submitted a formal expression of interest to become the host site for the NBAF.

The NBAF will increase from a Biosafety Level 3 (BLS 3) to a BLS 4, and will research biological threats by bringing together researchers from three government departments — Agriculture, Homeland Security, and Health and Human Services — to combat foreign animal diseases, such as foot-and-mouth disease (FMD), and animal diseases that can infect humans, such as avian flu. DHS expects the new lab to expand our country's ability to create drugs, vaccines and other countermeasures against these diseases. This is part of the effort to modernize homeland security facilities and research to meet current and future national security needs.

Status and timeline

In July 2007, DHS further reduced the list to five sites in five states, including Kansas, and began preparing the environmental impact statement (EIS), which was an extremely thorough review of the site locations. The final EIS, issued in December 2008, was prepared following the requirements of the National Environmental Policy Act and recommended Kansas as the preferred NBAF location.

The record of decision documenting DHS' final decision to build the NBAF in Kansas was signed Jan. 12, 2009, and published in the *Federal Register* Jan. 16, 2009. The project was reviewed by the Obama Administration, and the decision to locate the NBAF in Kansas on the merits was affirmed by Secretary of Homeland Security Janet Napolitano, during a visit to Kansas State University (K-State) in February 2009. Facility planning and design began in 2010 and are still developing today.

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> ***— Mike Pompeo (R-Kan.)***

NBAF is at a critical point today as a second National Research Council (NRC) report to Congress says DHS plans for the NBAF proposed for Manhattan, Kan., are much improved since 2010, but still not yet up to snuff. NRC found there are still "deficiencies" and "risks" associated with operating the facility that are still inadequately characterized.

"It (NBAF) is not a partisan issue. It was supported by both the Bush and Obama administrations, and was passed by both a Democrat- and Republican-controlled Congress. There is no partisan nature in regards as to what is going on at the NBAF," said Mike Pompeo (R-Kan.).

Why Kansas?

"Kansas offered the federal government a solution, not a site," said Kansas Governor Sam Brownback. According to an organization in favor of NBAF in Kansas, there are several reasons they feel their state has an advantage to being the home of NBAF.

First, the site is in the right location and offers the one-of-a-kind scientific assets and expertise to be offered immediately. This is coupled with the long-standing expertise in medicine, veterinary science and research for which K-State is known. Also, we cannot forget about K-State's national recognition in relation to zoonotic diseases, infectious diseases and livestock medicine, and that K-State is home to the Biosecurity Research Institute (BRI). BRI offers the unique resource for use while the NBAF facility is being built.

The facility also offers the state of Kansas an economic benefit. The $650 million NBAF will create up to 1,500 construction jobs and 450 permanent jobs at the lab. It will generate an estimated economic impact of $3.5 billion in the first 20 years and create a target for business of private biotechnology companies, professionals and support infrastructure, not to mention the opportunities for surrounding research universities to become involved.

The proposed site

In order to accomplish such a large project, there had to be a steering committee developed to oversee planning and implementation of NBAF. In July 2011, Gov. Brownback announced the members of the committee:

- U.S. Sen. Pat Roberts, chairman
- Kansas Senate President Steve Morris
- U.S. Sen. Jerry Moran
- Kansas House Speaker Mike O'Neal
- U.S. Congressman Tim Huelskamp
- Kansas House Minority Leader Paul Davis
- U.S. Congresswoman Lynn Jenkins
- Kansas Senate Minority Leader Anthony Hensley
- U.S. Congressman Kevin Yoder
- Kansas Board of Regents Chair Ed McKechnie
- U.S. Congressman Mike Pompeo
- K-State President Kirk Schultz
- Former Kansas Governor Mark Parkinson
- Former Governor John Carlin
- Manhattan Mayor Jim Sherow

The proposed site for NBAF is on the campus of K-State, Manhattan, Kan., immediately adjacent to the BRI. The BRI is

a $54 million research and education facility having BSL 3, BSL 3 Enhanced (BSL 3E), and BSL 3 Agriculture (BSL 3Ag) state-of-the-art research space. The site also has proximity to the K-State School of Veterinary Medicine and the K-State College of Agriculture, which includes the Department of Animal Science and Industry.

In addition to Kansas having a site already cleared and in place, there has also been the start of a consortium. The Heartland Bio Agro Consortium (HBAC) is led by K-State and the Midwest Research Institute, with the Kansas City Area Life Sciences Institute providing cohesive leadership. The HBAC is a unique combination of research universities, research institutes and hospitals, subject-matter experts, and leading firms in the bioscience industry — all capable of providing a collaborative, enriched and valuable environment for NBAF.

HBAC partners include research universities in the Kansas, Iowa, Missouri and Nebraska region, and several research universities outside the region chosen to complement strategic research. HBAC partners also include private research institutes and research hospitals. In addition to verbalized partners, Manhattan is part of the Kansas City corridor, which is home to more than 120 animal health companies — including 37 global leaders that employ nearly 13,000 animal-health specialists.

"As ranking member of the Senate Agriculture Committee, I have no greater priority than ensuring our food, farms, ranches and communities remain safe from biological attack. Our national security is always foremost in my mind. As we continue to move forward with the developments of NBAF, I look forward to the day when we can finally climb on that pile of dirt next to the bulldozers and celebrate," Steering Committee Chairman and U.S. Sen. Pat Roberts said.

Issues and concerns

But building the facility is not without concerns. First and foremost is safety. The risk of accidental or intentional release of deadly pathogens is a concern. Some have voiced concern that natural disasters, such as tornados or floods, could cause a break in biocontainment of infectious organisms. Others worry about an increasing risk of agroterrorism from terrorists who would target our country to animal rights activists who would target our industry.

To address this issue further, many press conferences and hearings have been hosted in conjunction with BRI, K-State, Congress, DHS and the NBAF steering committee.

DHS has conducted multiple studies of risk quantification, including the Site-Specific Risk Assessment (SSRA), which was updated in February 2012. The SSRA has been recognized as an important step in the planning of risk since it was completed at multiple stages in the development of the facility design. Questions were raised in the report. These focused on the assumptions used to capture the uncertainties of risk. These questions will be addressed as DHS continues to assess risk as a part of its Iterative Risk Process. The NRC did not assess the operational safety of the NBAF.

Another concern is the federal budget. The total NBAF cost is $650 million. In February 2012, President Obama offered money to BRI, but suggested cuts to the proposed $650 million budget. People are concerned that this could happen again as construction of the new facility begins. The state of Kansas has already provided $12 million to K-State for site clearance, relocation of a water main, and grading. The city of Manhattan has already spent $2.3 million on various utilities. The federal government has spent funds, as well.

Other Capabilities

The following diseases which require BSL 3 and BSL 4 laboratory capabilities, would be additionally studied at NBAF:

- Nipah virus
- Hendra virus
- African swine fever
- Rift valley fever
- Japanese encephalitis virus
- Foot-and-mouth disease
- Classical swine fever
- Contagious bovine pleuropneumonia

The future

On May 16, 2012, the U.S. House Committee on Appropriations allotted $75 million for NBAF construction. The Senate is expected to take up the funding issue later this summer.

The NBAF baseline schedule is pending a mission need review that will be completed by the NRC in summer 2012.

Until a decision is reached and ground is broken in Kansas, the PIADC will remain open and continue to conduct research.

Once construction of NBAF is completed — an estimated five-year project — the current mission activities at the PIADC will begin to transition to the new facility. The transition process is expected to take approximately two years.

If you would like to express your comments and concerns, contact your local congressmen or government officials.