

*University of Alaska Fairbanks*  
**2011 Annual Unit Plan**

The information collected in the Annual Unit Plan (AUP) is used in a variety of required reports, including but not limited to institutional accreditation reporting, Performance Based Budgeting (PBB), Alaska Budget System (ABS), Missions and Measures (M&M), and the Annual Operating and Management Reviews. Submission of the AUP is required in August of each year.

Please complete the following information using the format provided, and submit it electronically by August 27, 2010 to Deb Horner, University Planner ([dghorner@alaska.edu](mailto:dghorner@alaska.edu)) with a copy to Ian Olson, PAIR ([inolson@alaska.edu](mailto:inolson@alaska.edu)) as well as to Susan Henrichs, Provost ([fyprov@uaf.edu](mailto:fyprov@uaf.edu)).

**A. General Information**

**A1. Unit Name:** Institute of Arctic Biology

**A2. Unit Mission Statement** - The mission is a short (no more than one paragraph) statement that describes why the unit exists. Unit mission statements that have been formally approved by the UA Board of Regents should not be changed.

The Institute of Arctic Biology advances basic and applied knowledge of high-latitude biological systems through the integration of research, student education, and service to the nation and state of Alaska.

**A3. Core Services** - This section identifies the unit's major functions that support its mission. In the interests of brevity, links to websites with additional information on the unit may be included. This section should not exceed two brief paragraphs.

The Institute of Arctic Biology supports faculty and post-doctoral research and graduate education in the life sciences of biology, wildlife ecology and conservation, ecology, biomedicine and health, evolution and genetics, ecosystems, and physiology. IAB supports research platforms including the Toolik Field Station and the Large Animal Research Station, small-animal facilities and surgeries, and core labs for geographic information systems, landscape ecology, geobotany, and DNA sequencing. Major research programs include the Bonanza Creek Long-Term Ecological Research (BNZ-LTER) site, the Resilience and Adaptation Program (RAP) graduate training program, the Center for Alaska Native Health Research (CANHR), the Alaska Basic Neuroscience Research Program (ABNP) and the Center for Molecular Genetic

Studies of Hibernation. IAB faculty manage the curricula for undergraduate majors in biological sciences and wildlife biology, UAF's largest major, and an increasing component of classes in chemistry, biochemistry and psychology, and offer opportunities to undergraduates for hands-on research experience in the lab and field.

## B. Progress Report

### B1. Major Accomplishments

List the significant unit accomplishments for AY09-10 in the areas indicated below. Please include the top three accomplishments in each area. Be brief; use web links to provide additional information if necessary.

- Teaching, research and public service:
  - Renewal of Bonanza Creek Long-Term Ecological Research (LTER) grant "Regional Consequences of Changing Climate-Disturbance Interactions for the Resilience of Alaska's Boreal Forest," PIs: Roger W. Ruess, Thomas Hanley, Michelle Mack, Jeremy Jones, A. David McGuire.
  - IAB's Center for Alaska Native Health Research (CANHR) is transitioning following the death of former Director Gerald Mohatt.
  - IAB's Toolik Field Station received a \$5M American Reinvestment and Recovery Act (stimulus) award from the National Science Foundation for design and construction of a new 6,000 sq ft dining and kitchen facility. Johnson River Enterprises of North Pole, Alaska, was selected to build the facility in one season.
  
- Faculty, student and staff awards, competencies, regional/national/international recognition:
  - Richard Boone, professor of biology, received the 2010 Usibelli Teaching Award.
  - Terry Chapin, elected President of the Ecological Society of America, the nation's foremost professional society in ecological sciences.
  - Perry Barboza: recipient of the Wildlife Publication Award – Outstanding Book Category for *Integrative Wildlife Nutrition*, published in 2009

**B2. End Results and Strategies**

List end results, strategies, targets, etc, in the table below for the period July 1, 2009 to June 30, 2010, based on the 2010 AUP. Add rows as needed.

End Result	Strategies to achieve End Result	Target Dates	Measure(s)	Status	Budget Impact
End Result 1. IAB to become a recognized leader in IPY research initiatives.	1a. Implement IPY research programs including individual IPY faculty grants, the Arctic Observatory Network (AON) at the Toolik Field Station, and the National Ecological Observatory Network (NEON) regional centers.	1a-1. Submission of IPY proposals in FY10.	1a-1. Number of proposals for IPY related research and activities submitted, funded, and total award amount.	1a-1. Twenty-three (23) IPY proposals submitted. Fourteen (14) awarded. Awards total \$10,936,510. <i>1a-1. Nine IPY proposals were submitted for the period ending FY10.</i>	1a-1. Increase research expenditures by \$10,936,510. Increase in ICR of \$1,869,044.  <i>1a-1. In FY10, grant-funded research expenditures for the five grants was \$90K with an increase in ICR of \$3,700 (F&amp;A was waived on most of the awards).</i>
		1a-2. Publishing of IPY-related scholarly papers in FY10.	1a-2. Number of papers published on IPY themes; participation by IAB faculty, post-docs, and graduate students in national and international IPY programs	<i>1a-2. Most of the 138 peer-reviewed scholarly publications by IAB faculty, staff, and students in 2008 addressed IPY themes. Few scholarly papers included the term "IPY."</i>	1a-2. Scholarly publications contribute toward successful proposals and so have the potential to indirectly and positively affect budget through receipt of grants.  <i>1a-2. This impact was realized.</i>

		1a-3. Successful funding of Presidential IPY post-doc proposals in FY10.	1a-3. Number of Presidential IPY post-doctoral fellows and successful proposals.	1a-3. Two Presidential IPY post-doctoral fellows selected. Awards total \$200,364.  <i>1a-3. No additional post-doc awards were made in FY10.</i>	1a-3. Increase of research expenditures in the amount of \$270,300, these are waived F&A awards.  <i>1a-3. TBD.</i>
	1b. IAB will support the development and maintenance of the Institute's Toolik Field Station (TFS) and the Bonanza Creek Long-Term Ecological Research (BNZ-LTER) program as National Ecological Observatory Network (NEON) regional candidate core sites.	1b-1. Congressional funding via National Science Foundation for the National Ecological Observatory Network (NEON) program. Anticipated installments in 2011-2014.	1b-1. Continue planning and development of the Toolik Field Station as the NEON tundra site and Bonanza Creek Long-Term Ecological Research Program sites as the NEON taiga site.	1b-1. In progress. TFS and BNZ-LTER remains the core tundra and taiga candidate sites for NEON.  <i>1b-1. TFS and BNZ-LTER remains the core tundra and taiga candidate sites for NEON.</i>	1b. TBD. NEON is not yet funded. Funding should start in 2011.
			1b-2. Continue siting, design, and placement of monitoring equipment, soil arrays, electricity, fiber optics, and trails and boardwalks.	1b-2. NEON specific installments expected to be complete in 2014.  <i>1b-2. Ongoing.</i>	

	1c. IAB will increase science outreach at the Large Animal Research Station (LARS). In addition to lectures and tours on the biology of arctic ungulates, we are creating displays of current research by IAB faculty and graduate students that are viewed by visitors.	1c-1. Receive strategic plan proposal from exhibit consultant in FY10.	1c-1a. LARS Science Director Perry Barboza to host Sharon Barry, an exhibits designer, to develop a strategic plan for outreach at LARS in June 2009.	1c-1a. Exhibit designer hosted in June 2009 with financial support from the UAF Provost.  <i>1c-1a. Completed.</i>	1c-1a. IAB must secure regular funding from outside IAB to sustain the LARS outreach with schools during the winter and to develop the summer program and facilities.  <i>1c-1a. Budget impact remains the same in FY11 as noted above.</i>
			1c-1b. Proposal received from Sharon Barry regarding outreach strategic plan for the IAB Large Animal Research Station (LARS).	1c-1b. In progress. IAB is awaiting the report from the exhibit consultant.  <i>1c-1b. Completed. Report received.</i>	1c-1b. Pending.  <i>1c-1b. Pending.</i>
			1c-1c. Review of proposal during FY10.	1c-1c. Completed.  <i>1c-1c. Completed.</i>	1c-1c. Pending.  <i>1c-1c. Pending.</i>
		1c-2. Initiate implementation of new outreach plan in FY10.	1c-2. Implementation of recommendations, if viable and feasible, beginning in FY10.	1c-2. Not complete.  <i>1c-2. Anticipate development of outreach plan to begin Jan. 2011.</i>	1c-2. TBD.  <i>1c-2. TBD.</i>

	<p>1e. IAB's business office will establish a mechanism for faculty to accept state/agency funding for applied research.</p>	<p>1e. To resolve issues with funding entities regarding overhead expenditures in FY10.</p>	<p>1e. Whether issues regarding agencies which refuse overhead expenditures are addressed and resolved.</p>	<p>1e. IAB's communicates with faculty and resolves issues regarding agencies that refuse overhead expenditure.</p> <p><i>1e. In FY10 IAB worked within OGCA and OSP guidelines on resolution for instances in which faculty needed to accept money without overhead. This has to be done on a case by case basis.</i></p>	<p>1e. Indirect positive impact due less time spent by faculty and staff on this issue.</p> <p><i>1e. Done only on a case-by-case basis within UAF OGC guidelines.</i></p>
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	<p>1f. IAB faculty will seek to increase their number of successful National Institutes of Health R-series proposals.</p>	<p>1f-1. IAB faculty will submit more NIH R-series proposals in FY09 than in FY08.</p>	<p>1f-1. Number of NIH R-series proposals submitted and awarded.</p>	<p>1f-a. During FY09 17 NIH R-series proposals were submitted. All proposals are still pending.</p> <p><i>1f-a. In FY10 ten NIH R-series proposals were submitted, two were awarded, one supplement awarded, one was declined, and six are in progress.</i></p>	<p>1f. If all R, P and U-series grants were funded as proposed IAB would increase research expenditures by \$9,910,000 with an increase of ICR of \$2,387,000</p> <p>Total of P and U-series proposals is \$4,152,353. If awarded this would increase research expenditures by this amount as well as increase ICR to approximately \$1M.</p> <p>ABNP/SNRP research expenditure increase of \$1,227,579, increase ICR of \$295,600.</p> <p><i>1f. Same as above.</i></p>
				<p>1f-b. Ten were submitted in FY08 and three were funded.</p> <p><i>1f-b. In FY10 three proposals were funded.</i></p>	<p>1f-b. TBD.</p> <p><i>1f-b. TBD.</i></p>

				<p>1f-c. Although not R-series, the following awards are relevant to this end result:</p> <p>During FY09 10 NIH P- and U-series proposals were submitted and all are still pending. Three P- and U-series proposals were submitted in FY08 and two were funded.</p> <p>During FY09 ABNP/SNRP was renewed for its third year of funding.</p> <p><i>1f-c. In FY10 one NIH SC2 proposal was declined,</i></p> <p><i>IAB's Alaska Basic Neuroscience Program (ABNP) received an ARRA (stimulus) supplement and a noncompetitive NIH renewal for one year (ABNP's 5th year).</i></p>	<p>1f-c. TBD.</p> <p><i>1f-c. TBD.</i></p>
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	1g. IAB will seek peer-to-peer collaborations with the local medical community	1g-1. IAB faculty members will make presentations at Fairbanks Memorial Hospital in FY10.	1g-1. Number of presentations made by IAB faculty.	1g-1. IAB faculty member made two (2) presentations at FMH. FMH CEO invited additional IAB faculty members to make presentations. IAB has returned offer with names.  <i>1g-1.No progress on this metric in FY10.</i>	1g-1. Unknown at this time.  <i>1g-1. Unknown at this time.</i>
		1g-2. Letters written by FMH individuals in support of the Life Sciences Building at UAF in FY10.	1g-2. Number of letters written by FMH in support of building the Life Sciences building at UAF.	1g-2. One letter written by FMH in support of Life Sciences building.  <i>1g-2. In FY10 IAB Director Brian Barnes made a presentation for the Fairbanks Memorial Hospital Foundation to seek advocacy from FMH for the UAF Life Sciences Building.</i>	1g-2. Pending.  <i>1g-2. Unknown at this time.</i>
		1g-3. Establish collaborative research projects in FY10.	1g-3. Number of abstracts, publications, and funded proposals associated with local medical community collaborators.	1g-3. In progress.  <i>1g-3. In FY10 No progress.</i>	1g-3. Pending.  <i>1g-3. No progress.</i>

<p>End Result 2. IAB will increase the internal, state, national, and international visibility, support, and mentorship of faculty research and graduate training programs in biomedical and behavioral health sciences (BBHS).</p>	<p>2a. IAB will increase visibility by increasing outreach and media contacts.</p>	<p>2a-1. IAB will seek to place or have written publicly accessible outreach materials and make media contacts on biomedical research in FY10.</p>	<p>2a-1. Number of publicly accessible outreach materials produced and media contacts made.</p>	<p>2a-1a. The IAB website research projects page is live and features brief BBHS project summaries and photographs.</p> <p><i>2a-1a. In FY10 IAB continued to add new funded BBHS project to its research project webpages. Newsletters, brochures, posters, stories in UAF publications, are produced, distributed, and available at conferences, meetings, etc.</i></p>	<p>2a. Potential, indirect budget impacts could arise from public and philanthropic support of research.</p> <p><i>2a. Has not been tracked.</i></p>
		<p>2a-2. IAB will invite area science teachers to relevant seminars and presentations in FY10.</p>	<p>2a-2. Number of invitations sent to area science teachers.</p>	<p>2a-2. Sent invitations to all 38 FSNB School District science teachers for IAB's AY08-09 Life Sciences Seminar Series and the Dec 08 Irving-Scholander Memorial Lecture.</p> <p><i>2a-2. In FY10 IAB continued to invite local science teachers to public seminars.</i></p>	<p>2a-2. Has not been tracked.</p> <p><i>2a-2. Has not been tracked.</i></p>

		<p>2a-3. IAB will produce and distribute news releases on biomedical and health research in FY10.</p>	<p>2a-3. Number of relevant news releases produced and distributed.</p>	<p>2a-3. Three BBHS news releases issued.</p> <p><i>2a-3. In FY10, news releases produced on NIH C06 infrastructure award, stimulus funding (ARRA), workforce development release, CANHR resource consortium, and CANHR researcher discovery. CANHR then-director Mohatt was on local radio talking about CANHR. CANHR PI Bert Boyer was also interviewed on the radio about CANHR research.</i></p>	<p>2a-3. Has not been tracked.</p> <p><i>2a-3. Has not been tracked.</i></p>
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		<p>2a-4. IAB will participate in outreach presentations to the public, legislators, BORs, etc. in FY10.</p>	<p>2a-4. Number of events at which IAB faculty participated in outreach presentations.</p>	<p>2a-4a. Biomed faculty members greeted visiting BOR and legislative guests during a facilities tour of AHRB. Two faculty members (Drew, Harris) gave research briefings to legislators. Biomed faculty (Mike H.) participated in UAF's weekly television program "Fairbanks Focus"</p> <p><i>2a-4a. In FY10 IAB and CANHR communication staff hosted a health and science information booth at the October 2009 Alaska Federation of Natives (AFN) conference in Anchorage. Staff participated in Doyon Ltd.'s Annual Meeting, World Eskimo Indian Olympics, a Health Communication Conference and Native American Research Conference, and CANHR scientists were featured in First Alaskans magazine.</i></p>	<p>2a-4. IAB paid for staff time to conduct outreach at conferences and meetings in FY10.</p> <p><i>2a-4. Same as above.</i></p>
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		2a-5. IAB will create outreach materials and facilitate media contacts in FY10.	2a-5. Number of outreach materials and media facilitations in FY10.	2a-5. TBD.  <i>2a-5. IAB is developing a tracking mechanism for this metric for FY11.</i>	2a-5. N/A  <i>2a-5. N/A</i>
	2b. IAB will contribute and participate in relevant workshops, meetings, conferences.	2b-1. IAB will add an evolution/genetics representative to the IAB Director's Council for FY10.	2b-1. Invite genetics-evolution representative to the IAB Director's Council	2b-1. Genetics-evolution representative (McCracken) accepted invitation.  <i>2b-1. In FY10 this metric was completed.</i>	2b. Pending.  <i>2b. No budget impact.</i>
		2b-2. IAB will contribute to the statewide undergraduate biomedical – SNRP conference in FY10.	2b-2. Support from IAB for this conference.  <i>2b-2. IAB was not approached for support for this conference in FY10.</i>	2b-2. IAB stands willing to support this conference.  <i>2b-2. IAB continues to stand willing to support this conference.</i>	2b-2. N/A  <i>2b-2. N/A</i>
		2b-3. IAB will consider sponsoring a statewide forum for faculty and administrative leaders in biomedical programs in FY10.	2b-3. Support from IAB for this forum.  <i>2b-3. This measure is now under the auspices of the Chancellor's Biomedical Summit.</i>	2b-3. N/A  <i>2b-2. N/A</i>	2b-3. N/A  <i>2b-3. N/A</i>

		2b-4. IAB will contribute to graduate seminars in FY10.	2b-4. Contribution toward weekly Physiology/Biomed Graduate Seminar.  <i>2b-4. IAB was not approached for support for these seminars in FY10.</i>	2b-4. IAB stands ready to provide support for the weekly Physiology/Biomed Grad Seminar.  <i>2b-4. IAB continues to stand ready to support this seminar</i>	2b-4. TBD.  <i>2b-4. N/A</i>
End Result 3. IAB will improve our ability to recruit and foster success of the best graduate students and post-doctoral fellows.	3a. Select the most highly qualified graduate students. 3a. This strategy continues.	3a. Increase in average GRE scores of incoming graduate students for FY10.	3a. An increase in average GRE scores of incoming graduate students during FY09 over FY08.	3a. Pending.  <i>3a. This metric was not tracked for the FY10 reporting period. IAB and the Dept. of Biology and Wildlife are jointly developing a tracking mechanism for this metric for FY11 onward.</i>	3a. TBD.  <i>3a. TBD.</i>
	3b. Track success (employment) of graduated students for data used to recruit new students via faculty member reporting on annual activity report.	3b. Annual reporting from faculty members on employment status of their graduate students post-graduation.	3b. Annual reporting from faculty members on employment status of their graduate students post-graduation. To be submitted along with Annual Activities Reports.	3b. In progress. First data request was Fall 08.  <i>3b. This metric was not tracked for FY10 and will not be tracked in FY11.</i>	3b. Potential impacts could include ability to contact alumni for financial support via UAF Development Office.  <i>3b. TBD.</i>

	<p>3c. Offer opportunities that will help retain and attract highly qualified graduate students and post-doctoral fellows.</p>	<p>3c-1. Continue and improve IAB's three graduate student fellowship programs in FY10.</p>	<p>3c-1. Maintain or Increase number and funds allocated toward IAB graduate fellowships.</p>	<p>3c-1. IAB created two new graduate student fellowships: Human Health and Ecology &amp; Wildlife Biology.</p> <p><i>3c-1. These new fellowships were funded in FY10, but available funds will be reduced in FY11 due UAF budget cuts.</i></p>	<p>3c-1. IAB provided \$50,000 for 3 Human Health, \$50,000 for 5 Ecology and Wildlife, and an additional \$25,000 for 12 Director's Fellowships in FY09.</p> <p><i>3c-1. In FY10, IAB provided the following fellowships: \$57K for human health, \$50K for ecology and wildlife, and \$70K for director's award.</i></p>
		<p>3c-2. Support relevant conferences and meetings in FY10.</p>	<p>3c-2. Increase in the number and support of relevant conferences and meetings in FY10 over FY09.</p>	<p>3c-2. IAB co-hosted the American Society of Mammalogists (ASM) Annual Meeting June 2009, which afforded potential students and post-docs the opportunity to see UAF. Stats: 438 registrants, 217 professional scientists, 148 students, 69 guests, and 4 vendors.</p> <p><i>3c-2. IAB provided staff support for this meeting.</i></p>	<p>3c-2. \$30K toward salaries and supplies in support of the ASM meeting.</p> <p><i>3c-2. Completed.</i></p>

		3c-3. Provide travel support to graduate students in FY10	3c-3. Amount of funding provided to prospective graduate students as reflected in airline miles and support to the sponsoring faculty member will increase in FY10 over FY09.	3c-3. Airline mileage and funds were expended.  <i>3c-3. In FY10 the IAB director provided \$19,623 in support to graduate students and their faculty sponsors for travel and conferences.</i>	3c-3. IAB provided 72,500 in airline mileage and \$37,226 in support to faculty members.  <i>3c-3. The IAB director provided \$19,623 in support to graduate students and their faculty sponsors for travel and conferences. We supported three students with mileage to meetings/workshops.</i>
End Result 4. IAB will enhance research, education, and outreach programs relevant to Alaska stakeholders in wildlife, wildlands, biomedicine, biotechnology, and health education.	4a. Continue support of and participation in establishment of Toolik Field Station and Bonanza Creek Long-Term Ecological Research sites as part of the National Ecological Observatory Network (NEON).	4a. Continue support of and participation in NEON candidate site establishment in FY10.	4a. Participation in NEON planning committees.	4a. Toolik Field Station and Bonanza Creek LTER continue to be the tundra and taiga candidate sites.  <i>4a. In FY10 status unchanged.</i>	4a. TBD  <i>4a. TBD</i>
	4b. Continue support of our Large Animal Research Station-initiated curriculum package for Fairbanks North Star Borough K-12 teachers.	4b. Continuing work on curriculum in FY10.	4b. Participation and support of curriculum development	4b. In progress.  <i>4b. In FY10 progress continued in search for curriculum funding and support for LARS by LARS science director (Barboza).</i>	4b. TBD  <i>4b. TBD</i>

	4c. CANHR will establish collaborative relationships with Alaska Native health organizations.	4c-1. IAB via CANHR will establish collaborative relationship with the Y-K Health Corporation in FY10.	4c-1. Establishment of Y-K Health Corp. relationship.	4c-1. CANHR has established relationship with Y-K Health Corporation.  <i>4c-1. In FY10 CANHR continues to build on their relationship with YKHC, Fairbanks Native Association (FNA), Tanana Chiefs Council (TCC), and Manilaq Assoc.</i>	4c. TBD  <i>4c. TBD</i>
		4c-2a. IAB via CANHR will expand program to additional diseases; create intervention strategy; expand patient population base in FY10.	4c-2a. Number of additional/new diseases, intervention strategies, and patient base in FY10.	4c-2a. In progress.  <i>4c-2a. In FY10 CANHR continued to toward expansion of their program to address additional diseases. In FY10, CANHR's patient population base was about 1400 individuals. CANHR created intervention strategies within the ET project.</i>	4c-2a. TBD  <i>4c-2a. TBD</i>
		4c-2b. Establishment of MOUs/MOAs with relevant CANHR stakeholders.	4c-2b. In progress.	4c-2b. In progress.  <i>4c-2b. In FY10 progress continued on this metric.</i>	4c-2b. TBD  <i>4c-2b. TBD</i>

		4c-2c. Increase CANHR patient database enrollment.	4c-2c. In progress.	4c-2c. In progress.  <i>4c-2c. 10 In FY10, CANHR's patient population base was about 1400 individuals.</i>	4c-2c. TBD  <i>4c-2c. TBD</i>
End Result 5. Hire highly qualified faculty, and support and mentor their academic success.	5a. Successful faculty recruitment and hiring.	5a-1. Successful promotion and tenure of current faculty members in FY10.	5a-1. Number of successful promotions and tenures for faculty members.	5a-1. Five of five faculty members successfully promoted and/or tenured. Promoted to Professor: Peregrine Barboza. Tenured & Promoted to Assoc. Professor: Falk Huettmann Diane O'Brien Naoki Takebayashi Diana Wolf  <i>5a-1. In FY10, there was 1 promotion to professor (Lindberg) and three tenure and promotions to associate professor (K. O'Brien, Runstadler, Hundertmark).</i>	5a-1. \$16K increase for each of 10 promotions.  <i>5a. \$19K increase for each of 10 promotions in FY10.</i>
		5a-2. Hire an established biomed scientist to lead INBRE in FY10.	5a-2. Successful recruitment and hire of established biomed scientist to lead INBRE.	5a-2. Pending.  <i>5a-2. This recruitment is on pause.</i>	5a-2. NA  <i>5a-2. In FY10 IAB did not fund this.</i>

		5a-3. Hire epidemiologist for CANHR in FY10.	5a-3. Successful recruitment and hire of epidemiologist for CANHR.	5a-3. Pending. <i>5a-3. Dr. Ellen Lopez hired.</i>	5a-3. NA <i>5a-3. In FY10 IAB provided \$115K toward this metric.</i>
		5a-4. Hire health promotion specialist for CANHR in FY10.	5a-4. Successful recruitment and hire of health promotion specialist for CANHR.	5a-4. Pending. <i>5a-4. Dr. Monica Skewes hired.</i>	5a-4. NA <i>5a-4. In FY10 IAB provided \$28K toward this metric.</i>
		5a-5. Hire biostatistician for CANHR (replacement for R. Plaetke) in FY10..	5a-5. In progress.	5a-5. Search is active. <i>5a-5. Pending.</i>	5a-5. NA <i>5a-5. In FY10 this search failed and will be reopened. Unknown budget impact for failed search.</i>

	<p>5b. IAB will increase support of, and mentorship of faculty research and graduate training programs in biomedical and behavioral health sciences (BBHS).</p>	<p>5b-1. Creation of \$450K start-up fund in FY10.</p>	<p>5b-1. How much of start-up fund is established.</p>	<p>5b-1. IAB budgeted \$100,000 for FY10 but can add in another \$100,000 from carryforward.</p> <p><i>5b-1. IAB secured \$450K, \$350K above its FY10 goal.</i></p>	<p>5b-1. Increasing start-up reduces funds available for renovation, graduate student fellowships, service center subsidies, and the director's discretionary fund.</p> <p><i>5b-1. IAB supported start-up funds for new faculty (Bret-Harte and Kielland) in FY10 in the result of \$100K however IAB was prepared to fund start-up for biomed which was not needed in FY10 but will be supported in FY11.</i></p>
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		<p>5b-2. In FY 10 create 3469 net square feet of program space for the Center for Alaska Native Health Research (CANHR) via funds from a National Institutes of Health C06 award to the VCR in FY10. (Per Cameron Wohlford, the original grant was to include 1570 net square feet on the first floor for CANHR, and 1899 net square feet on the second floor for neuroscience, but NIH dropped neuroscience from the grant. All space will be allocated to CANHR). (Warrick).</p>	<p>5b-2. Initiation and completion of the construction in the Arctic Health Research Building courtyard as a result of the NIH C06 grant.</p>	<p>5b-2. National Institutes of Health (NIH) C06 proposal submitted. ATCO trailers to be installed Sept. 09.</p> <p><i>5b-2. The AHRB project was completed June 2010 and resulted in ca. 15000 sq ft of program space, 4800 sq ft of mechanical space directly affecting the renovated space, and 6000 sq ft of mechanical space with an indirect affect. Approximately 4000 square feet of assignable office and lab space was made available on the second floor of the wing in support of IAB infectious disease research. A walk-in freezer/cooler for use by the School of Natural Resources and Agricultural Sciences was originally planned as part of the renovation; however, this room was not constructed as part of this project. In FY10, 270 square feet of office space in the renovated wing was assigned to IAB faculty. In the ATCO trailers on the west end of the building, approximately 120 square feet was assigned to and occupied by faculty members (post-docs).</i></p>	<p>5b-2. Completed.</p> <p><i>5b-2. In FY10 there was no budget impact for this metric. The C06 proposal was awarded and is as of Sept. 2010 in the process of being transferred from administration by the UAF VCR to IAB. ATCO trailers are in place to the west of the Arctic Health Research Building.</i></p>
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		5b-3. Director to submit annual evaluations in FY10.	5b-3. Director will submit annual evaluations for faculty members.	5b-3. In progress. <i>5b-3. All except two faculty evaluations completed in FY10.</i>	5b-3. NA <i>5b-3. No FY10 impact.</i>
		5b-4. Director to be actively involved in promotion, tenure, review, and sabbatical process in FY10.	5b-4. Director will be actively involved in promotion, tenure, review, and sabbatical process.	5b-4. In progress. <i>5b-4. Ongoing.</i>	5b-4. NA <i>5b-4. No FY10 impact.</i>
		5b-5. Director will continue to offer funding via Director's Discretionary Fund in FY10.	5b-5. Director will provide opportunities for faculty members to seek funding support via the Director's Discretionary Fund.	5b-5. In progress. <i>5b-4. IAB Director expended all discretionary funds in FY10.</i>	5b-5. NA <i>5b-5. No FY10 impact.</i>

<p>End Result 6. Create or secure the necessary infrastructure for research excellence.</p>	<p>6a. Provide and/or secure research space.</p>	<p>6a-1. Continue to advocate for the Life Sciences Innovation and Teaching Facility to be built at UAF during FY10.</p>	<p>6a-1. Continue Life Sciences building as No.1 priority for IAB and UAF.</p>	<p>6a-1. IAB director continues to advocate for Life Sciences building.</p> <p><i>6a-1. In FY10 IAB Director made presentation to Fairbanks Memorial Hospital Foundation to seek support of UAF's Life Sciences building, was on local radio speaking about the building and advocating for public support, and made a presentation at the UAF VCAS' Open Forum urging the UAF community to support the facility.</i></p>	<p>6a-1. TBD.</p> <p><i>6a-1. TBD.</i></p>
		<p>6a-2. Build research support facility at Toolik Field Station during FY10.</p>	<p>6a-2. Progress toward completion of facility.</p>	<p>6a-2. IAB secured stimulus funding for a new dining and administrative facility at Toolik Field Station.</p> <p><i>6a-2. IAB completed design and initiated construction of a new dining and administrative facility at Toolik Field Station. Commissioning is expected in early Oct. 2010.</i></p>	<p>6a-2. IAB to contribute \$115,288.59 toward the new dining and administrative facility at Toolik Field Station.</p> <p><i>6a-2. AB to contribute \$115,288.59 toward the new dining and administrative facility at Toolik Field Station in Oct. 2010.</i></p>

		6a-3. Successful renovation and modernization of the west wing of the Arctic Health Research Building (AHRB) in FY10.	6a-3. Support efforts toward renovation and modernization of the west wing of the Arctic Health Research Building (AHRB).	6a-3. AHRB renovation and modernization is under way.  <i>6a-3. The AHRB renovation and modernization was completed in June 2010.</i>	6a-3. N/A for FY09.  <i>6a-3. \$157K was contributed by Buck Sharpton through PBB; I'm not aware of any funds contributed directly by IAB, so there would be no budget impact. Any future impact to our budget as a result of this renovation is unclear.</i>
	6b. Increase efficiencies within the IAB business office.	6b-1. Consolidated executive officer and fiscal officer into one business manager position in FY10.	6b-1. Increase in efficiencies of business office functions particularly in supervision of IAB recharges and daily accounting to include work flow of the business office team.	6b-1. The business office is always looking at ways for efficiencies, however at this time no further restructure occurring, only replacement of positions vacated in recent months.  <i>6b-1. Completed.</i>	6b-1. Savings of approximately \$100K a year from combining fiscal and executive officer positions.  <i>6b-1. Completed.</i>
	6c. Increase opportunities for faculty-director communication	6c-1. Host a faculty retreat in FY10.	6c-1. Hosting of a faculty retreat.	6c-1. IAB hosted a two-day faculty retreat in April 2009. A follow-up retreat is planned for Fall 2009.  <i>6c-1. The faculty retreat was postponed to FY11, Aug. 2010.</i>	6c-1. Approximately \$40K in support that included two day salaries of faculty members who attended the retreat.  <i>6c-1. Approximately \$40K in support that included two day salaries of faculty members who attended the retreat.</i>

**B3. Analysis of Performance Metrics and Supporting Data**

Unit data will be provided by the UAF Office of Planning, Analysis and Institutional Research (PAIR). Respective data reports will be available at <http://www.uaf.edu/pair/performance-data/> for your use by July 30, 2010. Units may also include additional unit-specific performance data at the end of the section. Please use the same format in reporting unit-specific performance data. Please write a brief data analysis that incorporates the following aspects, where applicable:

**Data Review**

- Evaluate the differences in final numbers as compared to your unit targets. Did your unit meet its stated goal? Why or why not?
- Discuss data trends, both positive and negative.
- Indicate whether or not the targets should be adjusted for future years in light of trends.

**Strategies**

- Reflect upon key unit strategies initiated over the last year – which ones worked and which ones returned results that did not meet your expectations. Please explain. Take careful note of this critical piece as it plays an important role in the university’s overall PBB evaluation.
- If there is a formal plan (e.g., Enrollment Management Plan) that is strongly related to a particular performance criteria, discuss any evidence that the plan is or is not achieving its objectives, and if not, any changes implemented or planned.

**Resources and Reallocation**

- Were there any resources allocated or reallocated to support achievement of your unit’s targets and strategies? If so, please explain.
- Are any areas of achievement suffering from a resource (re)allocation that additionally impacts other metrics?
- Of all your strategies, which is your most critical for unit success and is it in need of additional resources in order to make it successful?

**Fairbanks Academic Unit-Level Historical Performance and Targets**

Line No.	Performance Metrics and Supporting Data Reporting Period: FY10 (July 1, 2009 to June 30, 2010)	Historical Performance					FY11 Target		FY12 Target
		FY06	FY07	FY08	FY09	FY10	Current	New	
1	Student Credit Hours Generated (ex. 500-level)								
2	Grant-Funded Research Expenditures								
3	High Demand Job Academic Awards								

4	Undergraduate Student Retention							
5	Undergraduate Enrollment							
6	UA Scholar Enrollment							
7	Graduate Enrollment							
8	Unit Enrollment Management Plan							
9	Student Learning Outcomes Assessment							

**Community Campus Academic Unit-Level Historical Performance and Targets**

Line No.	Performance Metrics and Supporting Data Reporting Period: FY10 (July 1, 2009 to June 30, 2010)	Historical Performance					FY11 Target		FY12 Target
		FY06	FY07	FY08	FY09	FY10	Current	New	
1	Student Credit Hours Generated (ex. 500-level)								
2	High Demand Job Academic Awards								
3	Undergraduate Student Persistence								
4	Undergraduate Enrollment								
5	UA Scholar Enrollment								
6	Unit Enrollment Management Plan								
7	Student Learning Outcomes Assessment								
8	Non-credit Instructional Productivity Units (NCU) Delivered								

**Research Unit-Level Historical Performance and Targets**

Line No.	Performance Metrics and Supporting Data Reporting Period: FY10 (July 1, 2009 to June 30, 2010)	Historical Performance					FY11 Target		FY12 Target
		FY06	FY07	FY08	FY09	FY10	Current	New	
1	Grant-Funded Research Expenditures (millions)	16.084	16.967	18.538	17.648	18.231	15.274	15.959	17.777
2	Indirect-Cost Recovery (millions)	1.56	1.82	2.365	2.262	2.336	2.2	2.383	2.183
3	Non-General Fund (NGF) Revenue	1.618	1.909	2.452	2.317	2.450	3.204	3.204	3.268
4	General Fund (GF) *This row is added by IAB	3202.6	3971.8	3588.1	3377.7	3565.1	3602.4	3602.4	6675
	Indirect-Cost Recovery (total) *This row is added by IAB	3.768	4.017	4.780	4.438	4.438	4.438	4.438	4.349
5	TA/RA Positions	-	-	-	-	201	75	115	153

1. For FY11 IAB is projecting 2% growth grant-funded research expenditures.
2. For FY11, IAB projects \$2,383,000 in ICR based on 2% growth in research grants.
2. For FY12, IAB projects a \$200,000 decrease in ICR from FY11 levels, due to the ending of funding for SNRP.
2. For FY12 IAB is projecting a decrease in grant-funded research expenditures over FY11, due to the end of the SNRP grant.
- 3 & 4 For FY11 non-general fund and general funds, the "current" is what IAB budgeted, the "new" is what IAB is projecting.

**\*\*5. TA/RA Position detail.** Margo Griffith contacted Provost Henrichs, who requests the following data, which differs from what was requested for FY09.

FY10 = total 201  
 Summer 2009= 57  
 Fall 2009= 50  
 Spring 2010= 58  
 Summer 2010= 36

FY11 = total 153  
 Summer 2010= 36  
 Fall 2010= 39 (we are still getting notifications for RA set-ups) 1 of the 39 is a new Grad Student, the others are returning RAs.  
 Spring 2011= 42\* (we are still receiving notification for RA set-ups)  
 Summer 2011 = 36\*  
 \*Projections

**S**

**B4. Publications in refereed journals/periodicals**

Please use EndNote to report publications for CY2008. The download is available at: <http://www.alaska.edu/keys/#Windows%20installers>, or <http://www.alaska.edu/keys/#Macintosh%20Installers>. Include the information as an attachment when you submit the AUP.

**B5. Occurrences of applied research benefiting Alaska**

This section of the report is used to review progress during the past year, July 1, 2008 to June 30, 2009, on the goals and outcomes as described in the 2009 AUP. Please note that there are some important changes to this section from prior years. These changes will bring consistency to the content and format of UAF's planning documents.

**Please note that the IAB research benefiting Alaska is grouped by the following research categories: Ecology/Ecosystems, Wildlife, Biomedical, Resilience/Sustainability, Socio-Ecology, Research Facilities, Research Tools/Web.**

School, College or Institute	Project Title	Project Status (complete, active, awarded, proposed)	Description of contribution to the state of Alaska	Name of collaborators if Alaska Native or rural Alaskans, or if project involves traditional knowledge.
Institute of Arctic Biology (IAB)				
<b>ECOSYSTEMS/ ECOLOGY</b>				
IAB	Dynamics of Change in Alaska's Boreal Forests (A Continuation of the Bonanza Creek Long-Term Ecological Research Program) Joint Venture Agreement PNW-06-JV-11261952-431; PI Roger Ruess; IAB 2006-109,	Active 5/31/06-5/31/11	This project benefits Alaska by providing resource managers, policy makers, and the public with information on how boreal systems are responding to climate change. This includes changes in fire, species composition, succession, societal interaction and land use. USDA – PNW	

	2007-098, 2008-098			
IAB	Impact of outbreak by the willow leaf blotch miner ( <i>Micrurapteryx salicifoliella</i> ) on willow performance in interior Alaska. (Diane Wagner).	Active 5/10-09/11	Contribution: This project documents patterns and consequences of willow attack by the willow leaf blotch miner moth, which is currently prevalent in interior Alaska, and assesses the degree to which such impacts can be mitigated through intervention.	
IAB	Plant-herbivore interactions mediated by toxin-determined functional response. (Jen Schmidt, post-doc).	Active 9/1/09-8/31/12	This project models the interactions between plant-herbivore-predator populations mediated by plant toxins. Such models can help Alaska land managers better understand the boreal forest ecosystem in Alaska. In addition, Alaska K-12 students will benefit through education outreach activities which include feeding trials and browse surveys.	
IAB	Integrated Ecosystem Model for Alaska: A collaborative project for the Arctic Landscape. (Eugenie Euskirchen).	Active 02/10-03/11	This project benefits Alaska by integrating three ecosystems models that can then be used to facilitate landscape-scale planning related to climate change in Alaska	
IAB	Ecosystem-level consequences of mutualistic partner choice in alder cross forest successional sequences in Interior Alaska; PI Roger Ruess; IAB 2007-004	Complete 04/01/07-5/31/10	This project benefits Alaska by providing information on the controls over nitrogen fixation by native and invasive plants.	
IAB	Collaborative research on carbon, water and energy balance of the arctic landscape at flagship observatories in a PanArctic network (Syndonia Bret-	Active 12/06-11/10	This Arctic Observatory Network project benefits Alaska by its creation of a database for use in modeling change and its impacts in the larger Arctic System, including terrestrial, atmospheric and oceanic components and their interactions. The project includes an education component that will provide undergraduate and graduate students with unique opportunities in the classroom, in the field and	

	Harte, Barnes BM. 06-116RV)		in modeling and analysis.	
IAB	Collaborative research on snow-shrub interactions in Alaskan and Canadian tundra and their positive feedbacks to vegetation and climate change (Bret-Harte, Sydonia. 05-049)	Complete 06/05-07/10	This project benefited Alaska by understanding how snow-shrub interactions and winter processes might contribute to expansion of shrubs in the Arctic, and the consequences of such vegetation change for biogeochemical cycling of carbon and nitrogen.	
IAB	Collaborative Research: Greening of the Arctic (Walker, Donald. 05-077)	Active 06/01-08/12	This project will benefit Alaska by directly addressing the question of how the terrestrial vegetation of the Arctic has responded to climate change to date and how it will respond in the future.	
IAB (AKCFWRU)	Collaborative Research: Soil carbon and its control on wetland carbon balance in interior boreal Alaska: Experimental manipulations of thermal and moisture regimes. 2008-079. (David McGuire).	Complete 05/01/08-04/30/10	This project benefits Alaska by providing information on the fate of wetland carbon under a changing climate guided by future climate predictions for Interior Alaska, and thus will be useful for modeling the future carbon balance of poorly drained Alaska ecosystems.	
IAB (AKCFWRU)	Assessing the Role of Deep Soil Organic Carbon in Interior Alaska: Data, Models, and Spatial/Temporal Dynamics; PI Dave McGuire; IAB 2008-055	Active 08/20/08-01/31/11	This project benefits Alaska by providing policy makers with information about the degree to which carbon sequestration efforts in Alaska and elsewhere in the United States may be offset by responses of carbon storage in ecosystems in Interior Alaska.	
IAB (AKCFWRU)	Collaborative Research: Soil carbon and its control on wetland carbon balance in interior boreal Alaska:	Complete 05/01/08-04/30/10	This project benefits Alaska by providing resource managers with an unprecedented opportunity to examine the consequences of changing climate for vegetation and carbon fluxes in Alaskan wetlands. NSF –Transfer from U. Michigan	

	Experimental manipulations of thermal and moisture regimes; PI Merritt Turetsky with A. Dave McGuire; IAB 2008-079			
IAB (AKCFWRU)	Variability in habitat trends among circum-polar caribou/reindeer herd ranges in relation to climate change. (Brad Griffith).	Active	Managers of caribou/reindeer in Alaska will be able to place the habitat trends and population performance of their herds in the context of circum-polar herds and be able to develop an enhanced understanding of the influence of habitat on populations, and refine their management actions accordingly. Collaborators: National Science Foundation, Circum Arctic Rangifer Monitoring and Assessment (CARMA) network.	
IAB (AKCFWRU)	Projected effects of climate-induced vegetation changes on caribou (Rangifer tarandus) energetics in northern Alaska. (Brad Griffith).	Active	Substantial changes are expected in vegetation that constitutes the forage base for Arctic ungulates such as caribou that are an important component of subsistence economies. However, the energetic implications of vegetation changes to caribou are unclear. This project will link vegetation and energetic models to project the implications of climate warming to caribou body condition and allow managers and consumers the information necessary to develop effective adaptation strategies for a changing climate. Collaborators: Circum Arctic Rangifer Monitoring and Assessment Network (CARMA), Alaska Department of Fish and Game, Arctic Slope Regional Corporation, US Geological Survey, US fish and Wildlife Service, Yukon Department of the Environment, UAF Reindeer Research Program.	
IAB (AKCFWRU)	Implications of climate variability for optimal monitoring and adaptive management in wetland systems. (Brad Griffith).	Active	This project will allow National Wildlife Refuge managers in Alaska and the northern Great Plains to do a more effective job of designing and implementing monitoring and assessment projects in the face of substantial year-to-year variability in annual conditions that accompany long term trends in climate. Managers will be better able to assess the effects of climate change and to evaluate the	

			effects of their management actions in response to climate change. Collaborators: US Fish and Wildlife Service, US Geological Survey.	
IAB (AKCFWRU)	Magnitudes, rates, and mechanisms of lake drying in Alaskan National Wildlife Refuges. (Brad Griffith).	Active	The project will facilitate the ability of Alaskan land managers to adapt to climate change by expanding the scope of estimates of the magnitudes and rates of lake drying and by identifying the mechanisms that are associated with the document reduction in number and area of lakes during the past 50 years. Identification of the mechanisms of drying will allow an informed assessment of implications for aquatic and terrestrial resources and potential adaptation strategies. Collaborators: US Fish and Wildlife Service, US Geological Survey.	
IAB (AKCFWRU)	Implications of climate change for biodiversity in Yukon River Basin wetlands. (Brad Griffith).	Active	The project will facilitate the ability of Alaska land managers to adapt to climate change by providing wide ranging baseline inventories and an assessment of current biodiversity in relation to lake characteristics, then projecting the climate related changes in the distribution and abundance of lakes and the implications for future biodiversity. As a result of this study, managers will be better able to anticipate landscape change and to proactively communicate expected changes to their constituencies. Collaborators: US Fish and Wildlife Service. US Geological Survey	
IAB	Are Alaskan Pollinators Abandoning Native Berries for an Exotic Clover? Implications for Invasive Plant Management on Fruit Production. (Christa Mulder).	Active	This project evaluates the threat posed by the invasion of an exotic legume through changes in pollination patterns by native bees to two plant species of great importance to Alaskans: bog blueberry ( <i>Vaccinium uliginosum</i> ) and lingonberry ( <i>Vaccinium vitis-idea</i> ).	
IAB (CNSM-ESTES)	Hydrophytic Status Assessment of SE Alaskan Wetland Conifers Using	Active 10/07-09/10	This project benefits Alaska by providing Federal and State resource managers, policy makers, and the public with information on the status of SE Alaskan Wetlands and information to be	

	DNA, Ectomycorrhizal Symbioses, Fruiting Responses, Successional Patterns, and Moss Indicators. (Gary Laursen).		incorporated into the definition of hydrophytic status of economically important tree species and the delineation manual modifications for Alaska primarily, but for the Nation as well. USArmy CRREL.	
IAB	Disease ecology of avian influenza. (Jonathan Runstadler).	Active 03/30/07- 03/29/14	This research is investigating the natural disease ecology of influenza in natural vectors of disease in order to understand not only the impact of disease on waterfowl as a natural resource, but the evolution, emergence, and transmission of influenza virus that is a potential threat to public health.	
<b>WILDLIFE</b>				
IAB	Habitat Selection and Survival of Prince of Wales Island Spruce Grouse (Mark Lindberg).	Active 2007- 2010	This project benefits Alaska by providing managers in Alaska with information essential for developing forest harvest practices that are needed for the sustainability of this unique grouse. The project was initiated in 2007 and the student defended this summer with plans to complete in the fall of 2010.	
IAB	Climatic change in boreal forest wetlands and its relation to wetland associated bird communities. (Mark Lindberg).	Active Fall 2009- 2013	This project examines how changes in wetland water conditions and vegetation and aquatic insect communities effects use and production of aquatic bird communities by reexamining wetlands that were first sampled on the Yukon Flats during the 1980s. This projects benefits Alaska by providing a measure of how wetland communities are changing in Interior Alaska and by providing managers with information needed to prioritize decisions about conservation of wetlands.	
IAB	History of the Teshekpuk caribou herd (Kris Hundertmark, PI; Karen Hibbard-Rode, PhD student; ADF&G, North Slope Borough, collaborators; funding from	Active	This project benefits Alaska by informing land and wildlife managers about the integrity of North Slope caribou herds in the face of climate change and resource extraction. The project scientists are investigating the history of the Teshekpuk Caribou Herd (TCH) and comparing the TCH to other North Slope herd to determine relationships among the herds.	This project includes traditional knowledge.

	EPSCoR; RAP student).			
IAB	Movements of high-elevation and low-elevation moose on the Kenai Peninsula (Kris Hundertmark, PI; Ben Kraft, MS student; ADF&G, US Fish and Wildlife Service, US Forest Service, collaborators).	Active	This project benefits Alaska by allowing refinement of moose carrying capacity estimates for land and wildlife managers. Project scientists are collecting movement and habitat use data from radio-collared moose in two adjacent populations and comparing daily movement data to determine the energetic budgets of moose in these contrasting habitats; that is, does it take more movement energy to meet the daily nutritional requirements in one habitat versus another.	
IAB	Estimating deer abundance on Chichagof Island using DNA markers. (Kris Hundertmark PI; Todd Brinkman, post-doc; ADF&G).	Active	This project benefits Alaska by providing the state, for the first time, with estimates of deer abundance that have known levels of precision, which will greatly benefit deer management.	
IAB	Habitat- and landscape-level correlates of neonatal survival in Sitka black-tailed deer. (Kris Hundertmark, PI; Sophie Gilbert, Ph.D. student; ADF&G).	Active	This project benefits Alaska by informing managers of the potential for mortality by predation of newborn deer in heavily logged vs. pristine environments. It will provide managers with habitat-specific mortality rates so that population models will be more realistic. Our results will aid the state in better understanding population dynamics of deer and managing populations.	
IAB	Bear occupancy model for Glacier Bay National Park. (Kris Hundertmark).	Active	This project benefits Alaska by determining how brown and black bears partition newly created habitats after glacial retreat. Such knowledge will be instrumental in managing the impact of tourism in Glacier Bay. (K. Hundertmark, Sanjay Pyare (UAS), PIs; Tania Lewis, MS student) Funding: National Park Service	
IAB	Evaluation of the Effectiveness of Raboral V-RG Oral Rabies Vaccine in Captive Arctic Foxes	Inactive as of 07/20100. Follmann died.	This project evaluates the effectiveness of an oral rabies vaccine in captive arctic foxes as an initial step to eliminating rabies in Alaska fox populations.	

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	(Follmann, Erich H. 08-018)			
IAB	Disease surveillance in Arctic Foxes. (Project begun by Erich Follmann, who died in July 2010. Karsten Hueffer will continue this research).	Active	Understanding the disease burden in Arctic Foxes will help better manage this population of predators in Alaska. Funded by and performed in collaboration with North Slope Borough.	
IAB	Diet of Glaucous Gulls on Alaska's North Slope (Powell, Abby. 08-019)	Continuing 09/07-06/10	The primary objective of this project is to document food habits of gulls by analyzing bolus regurgitation, examining stomach contents, and observing gull behaviors which will provide guidance in the development and implementation of recovery tasks and mitigation measures for all tundra-nesting birds.	
IAB	Harbor seal decline in the Glacier Bay Area: Assessing factors affecting survival of an imperiled species (Todd O'Hara, Todd. 08-020)	Complete 07/07-11/09	This project benefits Alaskans and resource managers by providing information on the health and survival of harbor seals within the traditional territory of the Huna Tlingit.	
IAB	BSIERP Patch Dynamics study UAF Seabirds (Sasha Kitaysky, 08-063)	Active 10/07-09/10	This project will benefit Alaska by providing resource managers a coordinated fine-scale study of birds and mammals, and their forage base to determine the consequences of spatial patterns (patches) on predator-prey dynamics. We will thereby establish mechanisms that control the abundance and distributions of top predators in the Bering Sea, and provide models with data to predict how and why these species respond to changes in the physical and biological environment.	
IAB	Evaluating Nutritional Condition of Arctic Ungulates (PMIS 119377); PI Perry Barboza; IAB	Active 08/01/07-03/31/12	This project benefits Alaska by refining and implementing a non-invasive means of measuring body condition of caribou and muskoxen and is an example of protection of wildlife populations as required in the enabling legislation for Gates of the Arctic National	

	2008-022. NPS.		Park and Preserve.	
IAB	Multi-species Investigation of Beak Deformities in Resident Alaskan Birds; PI Caroline Van Hemert; IAB 2008-045	Complete 01/31/08- 01/31/10	This project benefits Alaska by providing resource managers with Angus Gavin – Foundation	
IAB	Ecology of Smith's Longspurs in Northern Alaska; PI Abby Powell; IAB 2008-066	Active 08/30/07- 08/30/12	This project benefits Alaska by providing information about the ecology of Smith's Longspurs, a species of concern as identified by the Alaska Department of Fish and Game, US Fish and Wildlife Service, and Boreal Partners in Flight, to understand population abundance and distribution, demographic parameters, habitat requirements, basic biology and threats. NPS – CESU	
IAB (AKCFWRU)	At-Sea Locations of Juvenile and First Year King Eiders; PI Abby Powell; IAB 2008-081	Active 06/27/08- 12/31/11	This project benefits Alaska by providing resource managers with information on the potential impacts to King Eider habitats by gas and oil exploration and changes in the distribution of sea ice and benthic invertebrates due to climate change and unknown. USGS	
IAB (AKCFWRU)	Avian Ecology in Northern Alaska Within a Changing Environment; PI Abby Powell; IAB 2007-086 and IAB 2008-096A	Complete 08/01/07- 08/31/09	This project benefits Alaska by providing information on the use of coastal habitats by shorebirds on Alaska's North Slope to assist resource managers in protecting coastal resources and mitigating climate change and anthropogenic stressors. USGS	
IAB (AKCFWRU)	Amendment to " Stock identification and population assessment of Pacific Salmon in north; PI Joe Margraf; IAB 2008-102 and IAB 2005-001	Complete 08/01/04- 09/30/09	This project benefits Alaska by providing fisheries and resource managers with information on the use of the Yukon River Basin by fish. Evidence of rapid global climate change continues to accumulate in the Yukon River Basin that is particularly important for salmon. USGS	
IAB (AKCFWRU)	Effects of Habitat Change on Fish Condition in Undeveloped Beaufort Sea Coastal Lagoons (IAB	Complete 08/01/07- 02/28/10	This project will benefit Alaska by filling data gaps regarding the population level effects of development in nearshore waters of the Arctic Ocean.	

	2008-015) PI: Brad Griffith. USGS			
IAB (AKCFWRU)	Spatiotemporal variation in the non-breeding distribution and annual survival of Spectacled Eiders. (Abby Powell).	Active	This study benefits Alaskans by providing resource managers with information critical for understanding changes in habitat use and survival of this threatened species.	
IAB (AKCFWRU)	Habitat and avian communities as indicators of environmental change in the boreal forest of interior Alaska. (Abby Powell)	Active	This study benefits Alaskans by providing baseline data to support a Fairbanks Community Climate Observatory at Creamer's Refuge. The project combines citizen science, public outreach, research, and monitoring to promote understanding of climatic changes in interior boreal forest ecosystems.	
IAB	Bogoslof Patch Dynamics Study ; PI Alexander Kitaysky; IAB 2008-083	Complete 10/01/08— 09/30/09	This project benefits Alaska by providing resource managers with information on determining why populations of seabirds and fur seals are declining on the Pribilofs and increasing at Bogoslof. North Pacific Research Board NPRB	
IAB	Habitat Modeling and Diet of Yellow-billed Loons in Northern Alaska; PI Mark Lindberg; IAM 2008-088	Complete 08/28/08- 09/30/09	This project aims to benefit Alaska by providing resource managers with substantially improved habitat models for yellow-billed loons. This is of particular importance given the conservation concern for this species that require wildlife managers be able to identify the most important habitats of yellow-billed loons. ADF&G	
IAB	Climate Change, Freshwater, and Fish and Wildlife Populations and their Habitats Across the North Slope of Alaska; PI Amy Tidwell; IAB 2009-008	Complete 09/16/08- 09/30/09	This project benefits Alaska by providing resource managers with information on hydrological factors within the North Slope necessary to understand the freshwater budget and its effects on fish and wildlife populations and their habitats. USGS	
IAB	Fiber Degrading Microbes and Enzymes in the Rumen of Muskoxen; PI Peregrine Barboza; IAB 2009-072	Complete 02/15/09- 03/31/10	This project benefits Alaska by providing information on potentially novel fiber-degrading enzymes in the rumen of muskoxen. University of Lethbridge Research Center	

IAB (UA Museum)	Capacity Expansion and Imaging/ Data Capture at the Herbarium of the University of Alaska Museum. (Steffi Ickert-Bond).	Active 05/07- 04/11	This project benefits Alaska by providing Federal and State resource managers, policy makers, and the public with up-to date information on the taxonomy, detailed distribution data and status of plants in Alaska based on vouchered specimens in the UA Museum of the North Herbarium.	
IAB (UA Museum)	Checklist of Alaska Lichens (Steffi Ickert-Bond and Celia Miller)	Active 09/09 - 05/11	This project benefits Alaska by providing Federal and State resource managers, policy makers, and the public with a first compilation of the lichens of Alaska based on vouchered specimens and review of the literature.	
IAB (UA Museum)	A New Era of Cooperation between the Komarov Botanical Institute (LE) and the University of Alaska Herbarium (ALA): Unraveling Evolutionary Relationships of Beringian Plants (Steffi Ickert-Bond, PI)	Active 12/08 - 09/12	This project benefits Alaska by providing information on the biogeography of plants in Alaska and Chukotka, with special emphasis on the Bering Land Bridge as both a dispersal corridor and barrier to plant migration.	
IAB (UA Museum)	Herbarium study of plant samples from the Arctic Network of National Parks (Steffi Ickert-Bond, PI).	Active 06/10-05/15	This project benefits Alaska by providing information on plant distribution in Alaska's Arctic Network of National Parks. New specimens will be vouchered and digitized to make available on the Internet through Arctos, a UA Museum database.	
IAB (UA Museum)	Baseline community surveys of Alpine and Subalpine habitats in Southeast Alaska. (Karen Blejwas, Co-Pis: J. Cook, K. LaBounty, C. Pohl, D. S.	Active	Alpine communities, like the high arctic, are sensitive to climate change. These baseline data will provide documentation for comparison with future studies to estimate the influence of climate change in south east Alaska.	Kelly May, a Lathrop High School student and Tlingit Alaska Native, is a part time lab tech in the museum entomology lab and works on this

	Sikes).			project.
IAB (UA Museum)	Critical upgrade to the University of Alaska Museum Insect Collection. (D. S. Sikes).	Active	Modernizes the infrastructure of the state's arthropod bioarchive; digitization of data provides online access to species occurrence data for Alaska (anyone wanting to know which Alaskan species are known from where, and when, can query this system for answers).	Kelly May, a Lathrop High School student and Tlingit Alaska Native, is a part time lab tech in the museum entomology lab and works on this project.
IAB (UA Museum)	Terrestrial Arthropod responses to Tongass second-growth thinning. (D. S. Sikes).	Active	Will attempt to answer the question: Which forest thinning practice of the USFS generates communities that most closely approaches old growth forest stands using spider and beetle species richness in the Tongass National Forest on Prince of Wales Island?	Kelly May, a Lathrop High School student and Tlingit Alaska Native, is a part time lab tech in the museum entomology lab and works on this project.
IAB (UA Museum)	Alaskan Insect Pollinators: Occurrence data for an undersampled northern biota. (D.S. Sikes).	Active	Will provide online access to all pollinator species occurrence data available in the University of Alaska Museum. This information will help Alaskans interested in pollinator ecology, conservation, and agriculture.	Kelly May, a Lathrop High School student and Tlingit Alaska Native, is a part time lab tech in the museum entomology lab and works on this project.
IAB (UA Museum)	DNA Barcoding Alaskan Arthropods: Baseline genetics and museum modernization. (D. S. Sikes).	Active	Will begin building DNA library that can be used to identify insects in Alaska using small tissue samples.	
<b>BIOMEDICAL</b>				
IAB	Developing a novel set of diet pattern biomarkers, based on	Active	This project benefits Alaska by providing accurate and inexpensive biological markers of subsistence food intake that are critical for Alaska native health studies, as traditional dietary practices may be	This project is collaborative with the Yukon Kuskokwim

	stable isotope ratios. (Diane O'Brien).		a key factor in disease protection and conventional means of dietary assessment are difficult to proactive in rural communities.	Health Corporation, and has employed a number of Alaska Native assistants in both the YK Delta and in Fairbanks.
IAB	Diet, Adenosine, and Metabolism: Prophylactic Therapy for Brain Ischemia" (Kelly Drew).	Active (FY11)	Most people who are resuscitated following cardiac arrest die from subsequent brain injury. Therapeutic hypothermia is the only therapy currently available to reduce brain injury following cardiac arrest, but hypothermia is complicated by untoward side-effects associated with cooling. This project benefits Alaskans by exploring means to translate to humans mechanisms used naturally in hibernating animals to suppress metabolism. These studies may lead to new treatments for individuals who suffer cardiac arrest.	
IAB	Sudden Infant Death Syndrome (SIDS): A Developmental Investigation (Barbara Taylor, PI; Carla Cartagena De Jesus (Hispanic); Sheila Spader, Carla Nelson (AK Native); Mitchell Reed and Michael Kowalski (AK Native); post-doc Lena Vayndorf)	Active	This project benefits Alaska by investigating the cause of a health disparity that affects all Alaskans and particularly Alaska Natives. Sudden Infant Death Syndrome (SIDS) is twice as prevalent in Alaska when compared to elsewhere in North America and four times as prevalent among Alaska Natives and American Indians. Project scientists will identify a potential role of developmental neurotoxins in the pathophysiology of SIDS. Project scientists intend to identify the neurophysiological mechanisms through which these developmental neurotoxins cause SIDS.	
IAB	Indigenous Culture in Four Circumpolar Communities (Allen, James and Mohatt, Gerald. IAB 08-012)	Active 08/15/08-07/31/11	This collaborative IPY project will benefit Alaskan's health and wellbeing by identifying social and cultural strategies and resources that characterize young Alaska Native and other circumpolar Native people's everyday coping processes for ending substance abuse in the context of rapid social change and will increase Alaska's	

			indigenous capacity for research and action.	
IAB	Hibernation Genomics: Mechanisms for Metabolic Suppression and Neural Protection (Barnes, Brian. 07-90)	Active 10/07-09/09	Using mammalian hibernation as a model, this project investigates the molecular basis of metabolic inhibition and neuroprotection with the intent to benefit Alaskans and all people by identifying new drugs and treatment strategies for stroke, heart attack and major trauma in humans.	
IAB	MEALS (More Eating of Alaskan-based Lunches in Schools). (Johanna Herron, graduate student).	Active 08/09-12/11	This project seeks to benefit Alaska(ns) by improving nutrition in local schools with increased use of Alaskan foods via creation of a farm-to-school movement (F-SM). The project will identify current interest, capabilities, practices, and barriers to a F-SM beginning with food service professionals for local school districts and seek to increase collaborations between and among small farms, fishers, and schools.	
IAB	Three Validation Methods using Bone as Forensic Evidence for Prehistoric Arctic Human Health Information: Implications for Present Native Alaskan Eskimo Populations. (Bonita Dainowski, Ph.D.; funded by Barrow Young Researchers Grant, AINA Grants-in-Aid, and Matthew Iya Memorial Scholarship).	Active	This osteological forensic research project aims to benefit Alaska by exploring the importance of how marine and terrestrial foods consumed by prehistoric Alaskan Eskimo populations in the Beringia area will contribute to knowledge of the changing nutrients in the diet of contemporary Native Alaskan Eskimos as it relates to their current health issues.	
IAB	Genetics of Obesity in Yup'ik Eskimos. (Bert Boyer).	Active	This project benefits Alaska(ns) by identifying the contribution of selected candidate genes, dietary factors, and physical activity to the development of obesity in Southwest Alaska Yup'ik Eskimos.	Alaska Native Collaborator: Yukon-Kuskokwim Health Corp. and has employed a number of Alaska Native assistants in both the YK

				Delta and in Fairbanks.
IAB	Elluam Tungiinun: Toward Wellness. (James Allen, Stacy Rasmus).	Active 07/01/2008- 03/31/2013	This project benefits Alaska through a prevention trial testing the effectiveness of a cultural intervention to prevent youth suicide and alcohol abuse in rural Yup'ik communities.	Rural Alaska Native Collaborators: Five community planning groups of 5 to 15 individuals each, one regional planning group of 12 individuals. YKHC and LYSD. William Charles, Project Director Ron Trader, Sarah Pederson,, Art Chigiak. Project Staff. Involves Traditional Knowledge on youth development and transmission of Yup'ik cultural knowledge to youth.
IAB	Eskimo Collaboration. (Bert Boyer).	Active	This project benefits Alaska(ns) by consolidating data on Alaska Eskimos from four National Institutes of Health funded Alaska projects, quadrupling the size of the Eskimo study sample and providing wider tribal and geographic coverage.	Yukon-Kuskokwim Health Corp., Alaska Native Tribal Health Consortium.
IAB	Workforce Development. (Jerry Mohatt*, Bert Boyer). *Mohatt died Feb. 2010.	Active	This project benefits Alaska(ns) by providing in-depth training for Center for Alaska Native Health Research staff, investigators, postdoctoral fellows, tribal health organizations collaborators and research assistants.	Yukon-Kuskokwim Health Corp., Alaska Native Tribal Health Consortium, Yukon-Kuskokwim Health Corp.

				and has employed a number of Alaska Native assistants in both the YK Delta and in Fairbanks.
IAB	Science Educator. (Jerry Mohatt*, Bert Boyer). *Mohatt died Feb. 2010.	Active	This project benefits Alaska(ns) by hiring a Yup'ik speaking science teacher to interview CANHR participants to help find appropriate language for CANHR project data dissemination.	Yukon-Kuskokwim Health Corp.
IAB	Alaska Native Stroke Registry Allen, James UAF Subaward; Trimble. Brian ANTHC/ANMC Boden-Albala, Bernadette Columbia University	Active	This project benefits Alaska medical providers and rural communities by establishing incidence of stroke in Alaska Natives and vascular risk reduction strategies and barriers for rural Alaska Native people.	Rural Alaska Collaborators: YKHC Alaska Native Collaborator: Jordan Lewis, Project Director Involves Traditional Knowledge on health attitudes and beliefs, nutrition, and physical activity.
IAB	Contaminants and Nutrients in Alaskan Subsistence Foods: Striking a Balance. (Todd O'Hara)	Active	This project proposes to measure nutrients and environmental contaminants of specific subsistence foods. By addressing both nutrients and contaminants in fresh and processed foods (e.g., smoked, boiled) we can benefit Alaska by assess risks and benefits in a more balanced manner. We will focus on a fish species and two mammalian species (at least one should be marine), as selected by community members.	This project is collaborative with the Yukon-Kuskokwim Health Corporation, and has employed a number of Alaska Native assistants in the YK delta.
IAB	Yup'ik Experiences of Stress and Coping: Intervention via Cultural	Active	Yup'ik communities have voiced widespread concern about the prevalence of stress and traumatic life events and their negative impact on health. This project will benefit Alaska by developing a	This project is collaborative with the

	Understanding. (Inna Rivkin).		way of assessing stress and trauma in a Yup'ik cultural context and more importantly how Yup'ik people find healthy ways of coping with stress and trauma.	Yukon-Kuskokwim Health Corporation, and has employed a number of Alaska Native assistants in the YK delta.
IAB	Yup'ik Perceptions of Body Weight and Diabetes: Cultural Pathways to Prevention. (Andrea Bersamin).	Active	The purpose of this project is to conduct vital preliminary research to understand Yup'ik beliefs about body weight and diabetes. Despite Indian Health Service guidelines for monitoring diabetes risk among Alaska Natives, current prevention efforts are deficient in lay perspectives about risk and diabetes. This project will benefit Alaskans by moving researchers toward intervention and prevention planning tailored to the context of rural Alaska and the values of Yup'ik peoples.	This project is collaborative with the Yukon-Kuskokwim Health Corporation, and has employed a number of Alaska Native assistants in the YK delta.
IAB	Doctoral Dissertation Improvement Grant: Successful Aging through the eyes of Alaska Natives; PI Mohatt; IAB 2008-64	Complete 12/15/08-11/30/09	This project benefits Alaska by broadening the information available to Alaska and other gerontologists working with indigenous elders thereby enabling them to have a clearer picture of how to effectively address issues of aging faced by our indigenous elders. NSF.	
IAB	Health promotion in a Yup'ik community. (Cecile Lardon, 08-011).	Active 05/07-02/09	This project will benefit Alaskans by developing and evaluating the effectiveness of a community-based health promotion project called Healthy Living through a Healthy Lifestyle which is targeted at increasing behaviors related to cardiovascular health such as physical activity, nutrition, and stress reduction in a Native village.	
<b>RESILIENCE/S USTAINABILITY</b>				
Alaska Center	Making Wind Work for	Active	This project will expand existing capacity at the University of Alaska	

for Energy and Power (IAB participant Terry Chapin)	Alaska: Supporting the Development of Sustainable, Resilient, Cost-Effective Wind-Diesel Systems for Isolated Communities. EPSCOR (Terry Chapin, participant; Gwen Holdmann (ACEP is PI)		in the niche market technology of hybrid wind-diesel systems. With abundant wind resources across many rural regions of the state, Alaska is already considered a world leader in wind-diesel technologies, but many installed systems are not performing as designed. Specifically, we propose to address three persistent problem areas that currently hold back wind-diesel: 1) Technical issues related to higher penetration of wind (such as power stability); 2) Cold climate issues (such as rime icing); and 3) Socioeconomic challenges (such as local capacity to operate and maintain the system).	
SOCIO-ECOLOGY				
IAB	Circumpolar Pathways to Adulthood in Five International Indigenous Communities (Allen, James and Rasmus, Stacy. IAB 08-012).	Active	This project benefits Alaska education, community, and parent and children's services policy planners by identifying shared and divergent stressors and patterns of resilience in the transition to adulthood in Alaska, Canadian, Norwegian and Russian indigenous communities	Rural Alaska Native Collaborators: Local Steering Committee: Paula Ayunerak, Lawrence Edmond, Flora Phillip Hilda Stern, Felicia Stern, Katrina Patrick Art Chigiak Involves Traditional Knowledge on parenting and youth development
IAB	From Their Perspective: Alaskan Grandparents' Roles, Strengths, and	Active.	This project benefits Alaska by broadening the information available to Alaska and other gerontologists working with indigenous elders and Alaska parent and children's services policy planners through	Alaska Native Collaborators: Jordan Lewis co-PI

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	Needs (James Allen, Jordan Lewis, UAF)		study of roles, strengths, and needs of Alaska Native grandparents raising grandchildren as the primary caregiver.	Jenny Bell Project Director. Involves Traditional Knowledge on grandparenting and youth development
IAB	IPY: Impacts of high-latitude climate change on ecosystems services and society (Chapin, F. Stuart. IAB 07-067)	Active 10/07-09/10	This project will benefit Alaskans by documenting the current status and trends in ecosystem services, which are the economic and cultural benefits that society derives from Arctic and boreal forest ecosystems, project future trends in these services, and assess the societal consequences when these services are altered.	
IAB	Doctoral Dissertation Improvement Grant: Successful Aging through the eyes of Alaska Natives; PI Mohatt; IAB 2008-64	Complete 12/15/08-11/30/09 Mohatt died 02/10.	This project benefits Alaska by broadening the information available to Alaska and other gerontologists working with indigenous elders thereby enabling them to have a clearer picture of how to effectively address issues of aging faced by our indigenous elders. NSF.	
<b>RESEARCH FACILITIES</b>				
IAB	Toolik Field Station Cooperative Agreement	Complete 04/07/08-07/31/10	These projects benefit Alaska through the in-state expenditures by scientists, students, and support staff associated with the IAB Toolik Field Station.	
IAB	Toolik Field Station User Days (Barnes, Brian. 07-078, 08-039, 09-011)	Active 02/08-10/10	These projects benefit Alaska through the in-state expenditures by scientists, students, and support staff associated with the IAB Toolik Field Station.	
<b>RESEARCH TOOLS/WEB</b>				
IAB	Development of internet-based tools for information	Complete 08/06-10/09	This project benefits Alaska by developing a suite of Web-based tools to facilitate dissemination of monitoring data including air	

	dissemination by the Central Alaska Network (Lindberg, Mark. 06-083)		quality, climate, water, birds, mammals, and vegetation in Alaska that will address interests of park management, the public, and scientists.	
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\*This information is being collected as an *Indicator* for UAF's NWCCU accreditation reporting.

**B6. Comparative scores of students who take professional exams**

List examination scores:

School, College or Institute	Examination Type	Test Date	# of UAF Students Tested	UAF Pass Rate	National Pass Rate

**C. End Results and Strategies – FY 2011**

**C1. End Results Table**

Complete the table below for the period July 1, 2010 to June 30, 2011. Add rows as needed. For each end result, identify the applicable core theme(s) listed below.

- A. Educate: Undergraduate and Graduate students
- B. Discover: Through Research, Scholarship, and Creative Activity, including an Emphasis on the North and its Peoples
- C. Prepare: Alaska's Career, Technical, and Professional Workforce
- D. Connect: Alaska Native, Rural, and Urban Communities through Contemporary and Traditional Knowledge
- E. Engage: Alaskans via Lifelong Learning, Outreach, and Community and Economic Development

End Result	Themes	Strategies to achieve End Result	Target Dates	Measure(s)	Status	Budget Impact
End Result 1. IAB will continue as a recognized leader in arctic research initiatives	A, B, C, D, E	1a-1. Increase number of proposals submitted that address arctic science.	1a-1. Submission of arctic proposals in FY11.	1a-1. Number of proposals related to arctic research and activities submitted, funded, and total award amount is greater in FY11 than in FY10.	1a-1. Pending.	1a-1. TBD
		1a-2. Increase the number of peer-reviewed scholarly papers on arctic science.	1a-2. In FY11 IAB will seek an increase in the number of published peer-reviewed scholarly papers on arctic science.	1a-2. The number of peer-reviewed scholarly papers published on arctic themes is greater in FY11 than in FY10.  1a-2a. The number of peer-reviewed scholarly papers cited 10 or more times will be greater in FY11 than in FY10.  Please note that there can be several years lag between submission and publication of papers.	1a-2. Pending.. 1a-2a. Pending. Please note that there can be several years lag between submission and publication of papers	1a-2. TBD.

		1a-3. Secure the selection of Bonanza Creek Long-Term Ecological Research (BNZ-LTER) site and Toolik Field Station (TFS) as the National Ecological Observatory Network (NEON) core taiga and tundra sites.	1a-3a. Continue participation in NEON planning in FY11.	1a-3a. Participation in meetings, conference calls, etc. on NEON sites continues at the same or greater level in FY11 as in FY10 given the available opportunities.	1a-3a. These activities are continuing at BNZ-LTER and TFS in FY11.	1a-3a. TBD.
			1a-3b. Continue siting, design, and placement of monitoring equipment, soil arrays, electricity, fiber optics, and trails and boardwalks during FY11.	1a-3b. Demonstrated continuation of siting, design, and placement of monitoring equipment, soil arrays, electricity, fiber optics, and trails and boardwalks during FY11.	1a-3b. These activities are continuing at BNZ-LTER and TFS in FY11.	1a-3b. TBD.
		1a-4. IAB will increase science outreach at the Large Animal Research Station (LARS) for public, K-12, UAF, and others.	1a-4. In FY11, LARS plans to initiate development of an outreach plan based on the FY10 exhibit designer's report.	1a-4. In FY11, LARS will produce a draft outreach plan.	1a-4. LARS is currently seeking additional funding to support development and implementation of an outreach plan. LARS is also investigating alternative means of outreach delivery.	1a-4. TBD.

		1a-7. CANHR will establish collaborative relationships with Alaska Native communities and health-related organizations.	1a-7a. In FY11 IAB's CANHR will maintain its collaborative relationship with the Y-K Health Corporation, expand their programs to additional diseases, and expand their patient population base.	1a-7. In FY11 IAB's CANHR will continue to build on their relationships with YKHC, Fairbanks Native Association (FNA), Tanana Chiefs Council (TCC), and Manilq Association; increase the number of diseases they address in FY11 over those in FY10; and expand their population base over the FY10 reported population of 1400.  1a-7a. CANHR will annotate such collaborations on their peer-reviewed scholarly publications beginning in FY11.	1a-7. In FY11 CANHR continues to nurture and expand their collaborative relationships with Alaska Native communities and health-related organizations. CANHR is in discussions with Native communities about expanding the diseases they address.	1a-7. TBD. Collaborative relationships should have a positive effect on proposal funding.
			1a-7b. In FY11 IAB's CANHR will increase the number of Memorandum of Agreements (MOA) and Memorandum of Understandings (MOU) with relevant CANHR stakeholders.	1a-7b. CANHR will seek to increase the 22 current MOA/MOUs currently on file.	1a-7b. To date in FY11, CANHR has 22 MOA/MOUs.	1a-7b. TBD. MOAs/MOUs should have a positive effect on proposal funding.

		1a-8. IAB faculty will seek to increase their number of successful National Institutes of Health R-series proposals.	1a-8a. IAB faculty will submit more NIH R-series proposals in FY11 than were submitted in FY10.	1a-8a. The number of NIH R-series proposals submitted and awarded in FY11.	1a-8a. Pending	1a-8. TBD.
			1a-8b. Establish collaborative research projects in FY11.	1a-8b. In FY11, IAB will prepare a Research Centers in Minority Institutions (RCMI) proposal for submission to NIH.	1a-8b. No collaborative research projects have been initiated in FY11.	1a-8b. TBD.
End Result 2. IAB will increase the internal, state, national, and international visibility, support, and mentorship of faculty research and graduate training programs in biomedical and behavioral health sciences (BBHS).	A,B,C, D,E	2a-1. IAB will increase visibility of BBHS by increasing relevant outreach and media contacts.	2a-1. In FY11 IAB will increase participation in outreach opportunities and media contacts related to BBHS.	2a-1. In FY11 IAB will participate in more BBHS outreach opportunities, initiate more media contacts, participate in more BOR, legislative, and educational (K-12) contact opportunities than in FY10.	2a-1. IAB continues to add BBHS projects to the Institution webpages dedicated to research projects. IAB and CANHR communication staff are scheduled to attend a science writing conference in Nov. 2010.	2a-1. TBD. ().

		2a-2. IAB will contribute and participate in BBHS relevant workshops, meetings, conferences, etc.	2a-2a. In FY11 IAB will contribute and participate in more BBHS-relevant workshops, meetings, conferences, etc. than in FY10.	2a-2. In FY11, IAB faculty (B.Boyer, K. Drew, T.O'Hara) will participate in the UA Biomedical Strategic Plan formation.	2a-2. IAB supported the 7th International Conference on Applications of Stable Isotope Techniques to Ecological Studies (ISOECOL) in Aug. 2010. (D.O'Brien). IAB also supported the International Conference on Diseases in Nature Communicable to Man (Hueffer).	2a-2. IAB provided staff time (not tracked) for both conferences.
			2a-2b. In FY11 IAB will support the Mycological Society of American annual meeting in Fairbanks in Aug. 2011.	2a-2b. In FY11, IAB will provide (in)direct financial support to the MSA annual meeting	2a-2b. Pending	2a-2b. TBD
			2a-2c. IAB will contribute to the statewide undergraduate biomedical – SNRP conference in FY11.	2a-2c. In FY11 IAB will contribute to the statewide undergraduate biomedical SNRP conference with personnel and/or financial support.	2a-2c. Pending. \$2,500 available.	2a-2c. No requests to date.
			2a-2d. In FY11 IAB will support the Circumpolar Health meeting in Anchorage.	2a-2d. In FY11 IAB will provide (in)direct support to the Circumpolar Health meeting.	2a-2d. Pending.	2a-2d. TBD.

<p>End Result 3. IAB will improve our ability to recruit and foster success of the best graduate students and post-doctoral fellows.</p>	<p>A,B,C, D,</p>	<p>3a. Redesign process for recruitment, selection, and support of graduate students in FY11. This is result of FY11 faculty retreat (Aug. 2010).</p>	<p>3a. In FY11 IAB will seek to select and support the most highly qualified graduate students.</p>	<p>3a-1. In FY11 IAB will seek to encourage selection of graduate students with competitive GRE scores than in FY10.</p>	<p>3a-1. In FY11 IAB and the Department of Biology and Wildlife will institute the tracking and reporting mechanism developed in FY11 for this metric.</p>	<p>3a-1. TBD. ()</p>
				<p>3a-2. In FY11 IAB will seek to return the number of and funds allocated to graduate fellowships to FY10 levels.</p>	<p>3a-2. TBD.</p>	<p>3a-2. TBD.</p>
				<p>3a-3. In FY11 IAB and the Dept. of Biology and Wildlife will develop specific academic tracks for graduate student admissions within the biological sciences major (e.g. wildlife conservation, botany, etc.).</p>	<p>3a-3. In FY11 IAB and the Department of Biology and Wildlife are developing a tracking and reporting mechanism for this metric.</p>	<p>3a-3. N/A</p>
				<p>3a-4. Continue discussions in FY11 on establishing an earlier date of receipt for incoming graduate student applications.</p>	<p>3a-4. Pending.</p>	<p>3a-4. N/A.</p>

				3a-5. Create and maintain online graduate support information in FY11.	3a-5. In FY11 the IAB web team will develop an online presence for graduate support materials to include fellowships, travel, stipend support produced by IAB and the BW Dept.	3a-5. N/A.
End Result 4. Hire highly qualified faculty, and support and mentor their academic success.	A,B,C, D,E	4a. IAB will promote well-prepared and deserving faculty for promotion and/or tenure.	4a-1. Successful promotion and tenure of all well-prepared and deserving faculty members who seek P&T in FY11.	4a-1. In FY11 IAB will successfully promote and/or tenure all deserving faculty members.	4a-1. TBD.	4a-1. For FY11 IAB has budgeted \$19K for promotions.
		4b. IAB will seek highly qualified applicants for faculty vacancies.	4a-2. In FY11, IAB will be successful in fulfilling faculty vacancies/needs.	4a-2. In FY11 IAB will initiate faculty recruitments for 10 positions. 1. AKCFWRU leader 2. Joint Virologist 3. Wildlife Ecologist 4. Biostats/Bioinfo 5. Ecosystem Ecologist 6. Infectious Disease 7. Immunologist 8. Human Geneticist 9. Evol Biologist 10. Structured Decision-Making in Wildlife	4a-2. At the FY11 IAB faculty retreat, the faculty elected to pursue all 10 joint recruitments simultaneously in FY11. The AKCFWRU leader and Joint Virology recruitments have begun. Faculty working groups are preparing position descriptions and resource availability reports.	4a-2. Recruitment for positions could be \$50K-\$100K with travel expenses.

			4a-3. In FY11 IAB will continue support of start-up funds and to work with financial services to secure carry of start-up funds from one fiscal year to the next.	4a-3. Will track amount of continued start up funds from past hires.	4a-3. IAB has initiated discussions with FS on this topic.	4a-3. IAB has budgeted \$187K for faculty start-up
End Result 5. Create or secure the necessary infrastructure for research excellence.	A,B,C, D,E	5a. Provide and/or secure research space.	5a. In FY11 IAB will continue to advocate for the Life Sciences Innovation and Teaching Facility to be built at UAF.	5a. In FY11 IAB director and faculty will participate in UAF's advocacy campaign for the Life Sciences Innovation and Teaching Facility.	5a. In FY11 IAB Director B. Barnes submitted a community perspective column to the Fairbanks Daily News-Miner advocating support of the GO Bond that includes the UAF Life Sciences Facility.	5a. TBD.
		5b. Expand research support facilities at Toolik Field Station	5b. In FY11 IAB will continue to seek expansion of research facilities at Toolik Field Station.	5b-1. In FY11, IAB will participate in design of new two-story, 18-room, 36-bed dormitory at Toolik Field Station.  5b-2. In FY11 construction is expected to begin on a new dormitory at Toolik Field Station.	5b. In FY11 IAB is participating in the design of a new dorm for Toolik Field Station and design of a new laboratory and garage space for FY12.	5b. N/A.

		5c. Successful renovation and modernization of the Arctic Health Research Building (AHRB) in FY11.	5c. In FY11 support the successful Phase III and IV renovation and modernization of the AHRB.	5c. IAB will participate and advice UAF Facilities Services on the renovation of the AHRB.	5c. IAB currently has representation on the FS AHRB renovation committee.	5c. N/A
		5d. Increase opportunities for faculty-to-director communication.	5d. Host a faculty retreat in FY11.	5d. In FY11 IAB director will host a faculty retreat.	5d. IAB faculty retreat was held Aug. 2010.	5d. IAB provided \$3K in support of the FY11 faculty retreat.

**D. Long Range End Results and Strategies – FY 2012 and Beyond**

**D1. Long Range End Results Table**

Complete the table below. For End Results with an anticipated start date of 2012, the results should be in line with budget requests for FY2012. Add rows as needed.

For each end result, identify the applicable core theme(s) listed below.

- A. Educate: Undergraduate and Graduate students
- B. Discover: Through Research, Scholarship, and Creative Activity, including an Emphasis on the North and its Peoples
- C. Prepare: Alaska’s Career, Technical, and Professional Workforce
- D. Connect: Alaska Native, Rural, and Urban Communities through Contemporary and Traditional Knowledge
- E. Engage: Alaskans via Lifelong Learning, Outreach, and Community and Economic Development

End Result	Themes	Strategies to achieve End Result	Target Dates	Measure(s)	Status	Budget Impact	Anticipated start date
End Result 1. IAB will continue as a recognized leader in arctic research initiatives	A, B, C, D, E	1a-1. Increase number of proposals submitted that address arctic science.	1a-1. Submission of arctic proposals in FY12.	1a-1. Number of proposals related to arctic research and activities submitted, funded, and total award amount is greater in FY12 than in FY11.	1a-1. Pending.	1a-1. TBD	July 1, 2011.

		1a-2. Increase the number of peer-reviewed scholarly papers on arctic science.	1a-2. In FY12 IAB will seek an increase in the number of published peer-reviewed scholarly papers on arctic science.	<p>1a-2. The number of peer-reviewed scholarly papers published on arctic themes is greater in FY12 than in FY11.</p> <p>1a-2a. The number of peer-reviewed scholarly papers cited 10 or more times will be greater in FY12 than in FY11.</p> <p>Please note that there can be several years lag between submission and publication of papers.</p>	1a-2. Pending. Note there can be several years lag between submission and publication of papers.	1a-2. TBD	1a-2. July 1, 2011.
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		1a-3. Secure the selection of Bonanza Creek Long-Term Ecological Research (BNZ-LTER) site and Toolik Field Station (TFS) as the National Ecological Observatory Network (NEON) core taiga and tundra sites.	1a-3a. Continue participation in and support of NEON in FY12.	1a-3a. Participation in meetings, conference calls, etc. on NEON sites continues at the same or greater level in FY12 as in FY11 given the available opportunities. Measures will change if/when Congressional funding is secured.	1a-3a. TBD.	1a-3a. TBD.	1a-3a. Anticipate continuation and/or advancement of activities from FY11.
			1a-3b. Continue siting, design, and placement of monitoring equipment, soil arrays, electricity, fiber optics, and trails and boardwalks during FY12.	1a-3b. Demonstrated continuation of siting, design, and placement of monitoring equipment, soil arrays, electricity, fiber optics, and trails and boardwalks during FY12.	1a-3b. TBD.	1a-3b. TBD.	1a-3b. Anticipate continuation and/or advancement of activities from FY11.

		1a-4. IAB will maintain and improve science outreach at the Large Animal Research Station (LARS) for public, K-12, UAF, and others.	1a-4. In FY12, LARS plans to implement an outreach plan based on the FY11 development plan.	1a-4. In FY12, LARS will produce a final outreach plan.	1a-4. LARS is currently seeking additional funding to support development and implementation of an outreach plan.	1a-4. TBD.	1a-4. Anticipated continuation of activities from FY11.
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		1a-7. CANHR will establish collaborative relationships with Alaska Native communities and health-related organizations.	1a-7a. In FY12 IAB's CANHR will maintain its collaborative relationship with the Y-K Health Corporation, expand their programs to additional diseases, and expand their patient population base.	1a-7. In FY12 IAB's CANHR will continue to build on their relationships with YKHC, Fairbanks Native Association (FNA), Tanana Chiefs Council (TCC), and Manilaq Association; increase the number of diseases they address in FY12 over those in FY11.  1a-7a. CANHR will continue annotation of such collaborations on their peer-reviewed scholarly publications beginning .	1a-7. In FY12 CANHR continues to nurture and expand their collaborative relationships with Alaska Native communities and health-related organizations. CANHR is in discussions with Native communities about expanding the diseases they address.	1a-7. TBD.	1a-7. Anticipate continuation of activities from FY11.
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			1a-7b. In FY12 IAB's CANHR will increase the number of and/or improve the quality of Memorandum of Agreements (MOA) and Memorandum of Understandings (MOU) with relevant CANHR stakeholders.	1a-7b. CANHR will increase the number of and/or improve the quality of MOA/MOUs on file.	1a-7b. TBD.	1a-7b. TBD.	1a-7b. TBD. MOAs/MOUs should have a positive effect on proposal funding.
		1a-8. IAB faculty will seek to increase their number of successful National Institutes of Health R-series proposals.	1a-8a. IAB faculty will submit more NIH R-series proposals in FY12 than were submitted in FY11.	1a-8a. The number of NIH R-series proposals submitted and awarded in FY12.	1a-8a. TBD.	1a-8. TBD.	1a-8. Anticipate continuation of activities from FY11.
			1a-8b. Establish collaborative research projects in FY12.	1a-8b. TBD.	1a-8b.	1a-8b. TBD.	1a-8b. July 1, 2011.

<p>End Result 2. IAB will increase the internal, state, national, and international visibility, support, and mentorship of faculty research and graduate training programs in biomedical and behavioral health sciences (BBHS).</p>	<p>A,B,C,D,E</p>	<p>2a-1. IAB will increase visibility of BBHS by increasing relevant outreach and media contacts.</p>	<p>2a-1. In FY12 IAB will increase participation in outreach opportunities and media contacts related to BBHS.</p>	<p>2a-1. In FY12 IAB will participate in more BBHS outreach opportunities, initiate more media contacts, participate in more BOR, legislative, and educational (K-12) contact opportunities than in FY11.</p>	<p>2a-1. TBD.</p>	<p>2a-1. TBD.</p>	<p>2a-1. Anticipate continuation of activities from FY11.</p>
		<p>2a-2. IAB will contribute and participate in BBHS relevant workshops, meetings, conferences, etc.</p>	<p>2a-2a. In FY12 IAB will contribute and participate in more BBHS-relevant workshops, meetings, conferences, etc. than in FY11.</p>	<p>2a-2. In FY12, IAB faculty will continue to participate in the UA Biomedical Strategic Plan formation.</p>	<p>2a-2. Membership from IAB TBD.</p>	<p>2a-2. TBD</p>	<p>2a-2. July 1, 2011.</p>
			<p>2a-2c. IAB will contribute to the statewide undergraduate biomedical – SNRP conference in FY12.</p>	<p>2a-2c. In FY12 IAB will contribute to the statewide undergraduate biomedical SNRP conference with personnel and/or financial support.</p>	<p>2a-2c. TBD.</p>	<p>2a-2c. TBD.</p>	<p>2a-2c. July 1, 2011.</p>

			2a-2d. IAB will continue to contribute to BBHS graduate seminars in FY12.	2a-2d. In FY12 IAB will contribute to BBHS graduate seminars.	2a-2d. TBD.	2a-2d. TBD.	2a-2d. July 1, 2011.
End Result 3. IAB will improve our ability to recruit and foster success of the best graduate students and post-doctoral fellows.	A,B,C,D,	3a. Redesign process for recruitment, selection, and support of graduate students in FY11. This is result of FY11 faculty retreat (Aug. 2010).	3a. In FY12 IAB will seek to select and support the most highly qualified graduate students.	3a-1. In FY12 IAB will seek to encourage selection of graduate students with competitive GRE scores than in FY11.	3a-1. TBD.	3a-1. TBD.	3a-1. July 1, 2011.
				3a-2. In FY12 IAB will seek to maintain or increase the number of and funds allocated to graduate fellowships.	3a-2. TBD.	3a-2. TBD.	3a-2. July 1, 2011.

				3a-3. In FY12 IAB and the Dept. of Biology and Wildlife will develop specific academic tracks for graduate student admission within the biological sciences major (e.g. wildlife conservation, botany, etc.).	3a-3.	3a-3. N/A.	3a-3. July 1, 2011.
				3a-4. In FY12 establishment of an earlier date of receipt for incoming graduate student applications.	3a-4.	3a-4. N/A.	3a-4. July 1, 2011.
				3a-5. In FY12, maintain and improve provision of online graduate support information.	3a-5.	3a-5. N/A.	3a-5. Anticipate continuation of activities from FY11.
End Result 4. Hire highly qualified faculty, and support and mentor their academic success.	A,B,C,D,E	4a. Successful faculty recruitment and hiring.	4a-1. Successful promotion and tenure of current faculty members in FY12.	4a-1. Number of successful promotions and tenures for faculty members.	4a-1.	4a-1. For FY11 IAB has budgeted \$19K for promotions.	4a-1. July 1, 2011.

			4a-2. Successful recruitment to fulfill faculty vacancies/needs in FY12.	4a-2. In FY12 IAB will initiate faculty recruitments as necessary.	4a-2.	4a-2. Recruitment for positions could be \$50K-\$100K with travel expenses.	4a-2. Anticipated that activities will continue from FY11.
			4a-3. In FY12 IAB will continue support of start-up funds and to work with financial services to secure carry of start-up funds from one fiscal year to the next.	4a-3. Will track amount of continued start up funds from past hires.	4a-3..	4a-3. TBD.	4a-3. July 1, 2011.
End Result 5. Create or secure the necessary infrastructure for research excellence.	A,B,C,D,E	5a. Provide and/or secure research space.	5a. In FY12 IAB will participate in the coordination of the Life Sciences Facility.	5a. Participation in FY12 of IAB in the coordination of the Life Sciences Facility.	5a. In FY12 IAB is continuing discussions on establishing an earlier date of receipt for incoming graduate student applications.	5a. Continue discussions in FY11 on establishing an earlier date of receipt for incoming graduate student applications.	5a. July 1, 2011.
		5b. Expand research support facilities at Toolik Field Station	5b. In FY12 IAB will continue to see expansion of research facilities at Toolik Field Station.	5b. In FY12 IAB will participate in design and construction of a new laboratory-garage facility at Toolik Field Station.	5b. In FY11 IAB is on schedule to initiate planning and design of a new laboratory-garage facility at Toolik Field Station.	5b. TBD.	

		5c. Continued successful renovation and modernization of the Arctic Health Research Building (AHRB) in FY12.	5c. In FY12 support the successful renovation and modernization of the AHRB to include the continuation of the AHRB courtyard, which is to begin in April 2011 and continue into 2012.	5c. In FY12 IAB will continue participation in the AHRB renovation and modernization efforts.	5c. TBD.	5c. TBD	5c. TBD. The southeast wing of AHRB is in the FY12 Capital Budget. There is no scheduled start date.
		5d. Increase opportunities for faculty-to-director communication.	5d. In FY12 IAB will host a faculty retreat.	5d. Whether IAB hosts a faculty retreat in FY12.	5d. In FY11 IAB held a faculty retreat.	5d. TBD.	5d. Anticipate planning will be ongoing from FY11.

**D2. Top three challenges for FY2012**

Identify the top three challenges confronting the unit for the period July 1, 2011 to June 30, 2012. These challenges must be directly related to the unit's FY2012 budget request.

- Challenge 1: Secure funding for Life Science Building to allow continued growth and efficiencies of our programs in biomedical and health sciences and climate change research.
- Challenge 2: Recruiting the best candidates to fulfill the current and anticipated faculty vacancies in IAB.
- Challenge 3: Securing necessary start-up and negotiating funding that will lead to the best candidates accepting offers to fulfill current and anticipated faculty vacancies in IAB.

**D3. Use of unanticipated funds**

Specify what the unit would do with additional funds, should they be made available later in FY2012. Activities must support the FY2012 budget request.  
 IAB would use unanticipated funds to increase and improve our negotiating position for the 10 current and anticipated faculty vacancies.

## E. Additional Information

### E1. Unit Unmet Needs

Identify unmet unit needs that could be supported through private, non-governmental funding, such as donors, foundations, etc.

IAB would use such support to provide UAF with match funds necessary to secure the Boone and Crocket endowed chair in wildlife biology.

### E2. Major Capital Investment Priorities and Space Needs

In order to better connect academic and research priorities with capital investment planning, identify the unit's highest priority facility needs, if any, for consideration in the six-year capital plan. Units should also describe any other significant facility or space management issues in this section. Be sure to show the linkages between facilities needs and unit End Results.

The UAF Life Sciences Innovation and Teaching Facility.