

Board decision on BSIERP

Component	Project	Proposal Origin	Detail on proposed studies	Inst.	Original Costs	Funded BSIERP		Ongoing Studies to link to or build upon
						Board budget	Board recommendation	
Socio-economics						\$ -	No new data collection on commercial fishery but see comment under modeling below	
LTK, Community Involvement - humans	Local & traditional knowledge	BTU	Ethnographic interviews of elders who speak Yup'ik or Unangan and combine with cognitive anthropology and cultural modeling to develop an alternative (to western physical and biol scientists, Fig1 BSIERP) conceptual model of the ecosystem in native terms. Pribis, Alakanuk, Manokotak, Akutan.	Huntington, UW, AFSC	\$ 319,026	\$ 1,000,000	Same as BTU but address SP and Technical reviewers concerns	528: Socioeconomic baseline information for the Pribilof Islands; 640: Community Profiles: Adak, St. George, St. Paul & Sand Point; 612/732: COASST Alaska; 733: PICBOMP
O5.41, O5.42	Subsistence adaptation modeling	BTU	Subsistence harvest surveys and compare to data from 10-20 years ago.	ADFG	274,926		Same as BTU but address SP and Technical reviewers concerns	
	Subsistence users and interviews	SEaBED	Subsistence users (Ecotrust) and 3 interviews in communities from SEABED.	ADFG, Huntington			Total LTK not to exceed \$1M. Justify list of communities, address reviewers and SP comments. Staff to develop an overall \$1M program with all relevant applicants from BTU and SEABED from these 4 'projects'	
Marine mammals	Whale broad-scale distribution	BTU	Acoustic sensors on M2, 4, 5 EBS shelf 70m isobath and slope based mooring south of Pribis; visual survey locations along acoustic trawl survey locations; second and third quarter 2008-2010.	PMEL, AFSC	\$ 513,251	\$ 300,000	Reduce Scope of Work: Do visual surveys only and but do not deploy acoustic sensors Note: Budget estimated. If appropriate, decrease number of observers to reduce costs.	409: Integration of marine bird and mammal observations with the Pacific CPR 414: Seasonal foraging strategies and consequences for Northern Fur Seals at Colonies with opposite population trends 514: Consequences of Fur Seal foraging strategies 636: Critical foraging habitat of lactating northern fur seals
O4.38, O4.39, O4.31, O4.33, O4.32	Patch Dynamics study	SEaBED	Patch dynamics study	UBC, USGS		\$ 2,300,000	Develop a patch dynamics study based on SEaBED (UBC and USGS) fur seals and walrus study: use seabird telemetry by BTU on Pribis and develop fur seal and prey field component (link to bioenergetics?). Develop full equivalent study with same patch work around Bogoslof and develop walrus-benthos patch dynamics study around St. Lawrence. Data to reside with overall Data Mgmt plan and feed into models. If collaboration between BTU and SEaBED researchers not possible, come back to Board to develop alternative strategy of how to develop this, e.g. 2008RFP. Address SP and technical reviewer comments.	
	Fur seal colony-based	BTU	pup abundance, condition and adult diet. Pribis; third quarter 2008 and 2010.	AFSC		\$ -	Same scope of work.	
Seabirds	Seabird telemetry	BTU	Data loggers in COMU, TBMU and BLKI to get foraging location, trip duration and frequency. 30 birds/spp/year. Analyze data in conjunction with prey field and oceanographic data from acoustic survey. St. Paul and St. George; third quarter 2008-2010	USFWS, USGS	\$ 623,215	\$ 600,000	Remove Common Murres: Should result in savings of at least \$25K. Integrate with patch study above	516: Seabirds as indicators of marine ecosystems; 531: Seabird-fish models; 609: Pelagic seabird distribution and climate change; 637: North Pacific Pelagic Seabird Program; 638: Auklet demography and climate variability; 722: North Pacific Seabird Diet Database; Coordinate with Refuge Activities
O4.35, O4.36, O4.37	Seabird broad-scale distribution	BTU	Visual surveys aboard fishery research vessels in conjunction with marine mammals above. Continues NPRB project 637 that ends 30 Apr 2008. Propose to 'collect' an unknown number of adult foraging birds of X species to determine adult diet. Acoustic trawl survey and other vessels; second and third quarter 2008-2010.	USFWS	\$ 550,438	\$ 550,438	Provide more information: Do broad scale surveys but drop adult bird collections unless proper justification and design is provided. Adjust budget accordingly.	
	Seabird colony-based	BTU	Chick diet, reproductive parameters and body condition, stable isotopes of COMU, TBMU, BLKI; 30 birds/spp/year. St. Paul and St. George; third quarter 2008-2010.	USFWS	\$ 377,224	\$ 350,000	Revise Scope of Work: Delete isotope work, but add banding on Pribis, and perhaps on St. Mathew and Bogoslof (see patch dynamics above, expand from current Refuge work!)	

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Benthic	NONE						See under marine mammals and gaps. Bottom trawls surveys will enumerate crabs	
Fish	Acoustic survey	BTU	Survey designed to estimate pollock abundance using 18, 38, 70, 120, 200kHz. Funding to add enumeration of euphausiids, myctophids and capelin, groundtruthed via targeted trawl hauls. middle (>70m) and outer (shelf edge) domain EBS from peninsula up to Cape Navarin; second and third quarter 2008-2010	AFSC	\$ 154,499	\$ 154,499	Same scope of work, but include ATF throughout the fish component and subsequent modeling as appropriate	Cod: 605: Modeling Pacific Cod Vital Rates in the Bering Sea; 618: Cod maturity in the Bering Sea; 620: Estimating movement rates of Pacific cod Pollock: 505: EBS walleye pollock: a spatially explicit model; 506: Pollock tagging mortality; 523: Pollock recruitment and stock structure; 524: Productivity of capelin and pollock; 610: Selective mortality in pollock larvae; FOCI Forage Fish: 401: Survey strategies for assessment of Bering Sea forage species; 606: Climate Effects on Jellyfish; 627: Identifying life history characteristics of squid
O2.26, O2.23,O2.28, O2.25,O2.19, O2.59,O2.16, O2.17	Surface trawl survey (match only, \$1,516,200)	BTU	Entire US EBS shelf from peninsula to just north of St. Lawrence including Norton Sound; third quarter 2008-2010	AFSC		\$ -	AFSC regular surveys + 2009	
	Surface trawl survey acoustics	BTU	Add 38kHz to regular surface trawl surveys to estimate pelagic species abundance. Entire US EBS shelf from peninsula to just north of St. Lawrence including Norton Sound; third quarter 2008-2010	AFSC, UW	\$ 425,731	\$ 425,731	Same scope of work.	
	Bottom trawl survey (match only, \$3,240,000)	BTU	Data collection on spatial pattern of shellfish and groundfish. EBS shelf all domains; second and third quarter 2008-2010.	AFSC		\$ -	AFSC regular surveys + 2009	
	Pollock & cod distribution	BTU	Synthesis of historical information on spatial distribution of pollock, cod, euphausiids, water column profiles, sea ice distribution, temp and light to describe ocean habitat requirements, and predator hotspot determination. Data from bottom trawls, acoustic surveys, commercial fisheries acoustic data and commercial catch. Retrospective analysis and modeling.	OSU, AFSC	\$ 332,313	\$ 332,313	Revise Scope of Work: Project 620 is currently doing this for cod, and much work has been done on pollock. The strength of this would be to incorporate these other data mentioned and it would need a more explicit link to environmental change and recruitment: lipid dynamics analysis and crucial first winter conditions. Also add arrowtooth flounder. See ichthyoplankton surveys - budget may differ	
	Functional foraging response	BTU	Stomach samples collected during acoustic surveys and compared to prey field to measure the functional foraging response of fish predators. middle (>70m) and outer (shelf edge) domain EBS from peninsula up to Cape Navarin; second and third quarter 2008-2010.	AFSC	\$ 258,260	\$ 258,260	Same scope of work.	
	Forage distribution & ocean conditions	BTU	Data from acoustic surveys on forage distribution; sample ocean habitat conditions during acoustic surveys, bottom trawl surveys in summer and from commercial fishing vessels in summer and winter. Will add nitrate and oxygen to acoustic survey and salinity, nitrate, oxygen and chl to bottom trawl surveys, and temp sensors to commercial vessels. Determine relationship between pollock and forage listed above and ocean climate. Second, third and fourth quarter 2008-2010	AFSC, OSU, PMEL	\$ 567,123	\$ 567,123	Identify Forage Species and Enhance Scope of Work: Forage species need to be identified. Add smaller scale process studies to complement broad scale studies (see ichthyoplankton below - Budget may differ)	
Zooplankton/LTL	Ichthyoplankton surveys	BTU	Collection of larval age-0 and age-1 juveniles (focus on pollock and cod) during summer research cruises. This gives seasonal complement to spring NPCREP, summer acoustic and summer surface trawl surveys. Feeds into BEST proposed NPZ model. EBS - unspecified (BEST cruise locations); second quarter 2008-2010	AFSC, UAF	\$ 1,068,052	\$ 1,068,052	Enhance Scope of Work: Add ATF, link to pollock and cod distribution above (expand with patch dynamics, process and rates study that addressed winter survival hypothesis and first feeding). Coordinate with BEST. Perhaps also do an equivalent of BASIS for cod?	
O2.7, O2.24, O1.1	Seasonal bioenergetics	BTU	Use data collected from ichthyoplankton surveys, measure condition and energy dynamics of juv pollock and cod to test winter survival hypothesis. Lab work after ichthyoplankton surveys have been conducted.	AFSC	\$170,100	\$ 250,000	Enhance Scope of Work: ADD ARROWTOOTH, and some environmentally dependent metabolic rate studies. (Budget may differ)	
	Biophysical moorings	BTU	Spring data collection on temp, salinity, fluorescence, currents, zooplankton abundance, nitrate, oxygen, turbidity. Gives info on OCH, timing of spring bloom, temp change and nutrient supply. M2, 4, 5 and 6, EBS shelf 70m isobath; second quarter 2008-2010.	PMEL, AFSC, UAF	\$ 732,259	\$ 732,259	Enhance Scope of Work: Moorings should add PAR - light levels - Budget may differ. No additional mooring support in regular RFP for at least 2008-2010.	

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Trophic Interactions	Fish, birds & mammals	BTU	Retrospective analysis of productivity measures of pollock , COMU, TBMU, BLKI and fur seals. Co-variation, interaction and relation to climate variability based existing data and proposed data collections. Modeling and retrospective studies with no timeline identified.	Mueter, UAF	\$ 286,913	\$ 286,913	Justify What is New: Need more detail. Better identify past efforts and justify what is NEW here (Budget may be less)	502: Integration of Ecological Indicators for the North Pacific with emphasis on the Bering Sea
O3.30, O4.40	Top predator hotspot persistence (matching only, \$55,200)	BTU	Data from seabird and marine mammal surveys and forage species abundance above to determine pelagic forage fish hotspot distribution and abundance. Around Pribis, around moorings; second and third quarter 2008-2010	AFSC, USFWS		\$ -	Same scope of work.	
Modeling	EMC model development	NEW				\$ 2,500,000	New: Based on funded field program, Ecosystem Modeling Committee should re-evaluate model needs and recommend how to proceed - recompile or ask PIs to re-develop? Preliminary guidance including how to proceed on retro-studies within 6 months - within 1 year provide the Board with a more comprehensive plan. Keep human impacts on ecosystem in model and let modelers identify data needs - NPRB and NPFMC ultimately will determine direction of those data collections (see socio-economics above). Use existing data (e.g. BASIS) to include salmon in models. Also include arrowtooth flounder to address hypotheses stated in BTU proposal.	305: Monitoring and modeling predator-prey relationships; 419: Modeling of multi-species groundfish interactions in the eastern Bering Sea; 525: Modeling multi-species groundfish interactions; 607: Response of lower trophic production to climate change; 608: Response of Bering Sea Ecosystem to Climate; 622: Seasonal predation by key Bering Sea and Gulf of Alaska fish
Project Mgmt/ Data Management - P.57		NEW				\$ 1,400,000	New PM: Staff to consider options of effective program mgmt, including hiring staff at NPRB. DM: Stay within BTU but staff to consider NPRB involvement.	
Ed and Outreach		NEW				\$ 100,000	Revise Based on Approved BSIERP: de-linked from BTU to be developed by NPRB, and explore synergy and additional funding with NSF E&O program for BEST.	
GAPS	Remote sensing	none					Total BSIERP funding cap is \$14M. Difference between this cap and total of projects funded will be used to fill these gaps in the 2008 RFP or to help marine mammal patch study above. Decide in Sept 2007 on how to allocate those funds. Ideally retain \$800K buffer but at least \$600K. Staff will be analyzing all proposed budgets very closely seeking savings to help fill gaps identified here.	
	Jellyfish	none						
	Continuous Plankton Recorder	none						
	Epi-benthos	none						
Total						\$ 13,175,588		