

NECC Output Timeline			
	Year 1	Year 2	Year 3
Fiber and Hardware			
20 year IRU for 12 fibers from Orono ME to Presque Isle (Pioneer Broadband)	Establish IRU and connectivity	Maintenance costs for IRU supported by UMaine	Maintenance costs for IRU supported by UMaine
20 year IRU for 4 fibers from Brunswick to Portsmouth (Tidewater Telecom)	Establish IRU and connectivity	Maintenance costs for IRU supported by UMaine	Maintenance costs for IRU supported by UMaine
20 year IRU for 12 fibers from Hanover NH to Manchester NH	Establish IRU and connectivity	Maintenance costs for IRU supported by UNH and Dartmouth	Maintenance costs for IRU supported by UNH and Dartmouth
20 year IRU for 12 fibers from Burlington, VT to Manchester, NH (VT AOT and TelJet)	Establish IRU and connectivity	Maintenance costs for IRU supported by UVM	Maintenance costs for IRU supported by UVM
20 year IRU for 2 fibers between Warwick, Kingston and Narragansett (FiberTech)	Establish IRU and connectivity	Maintenance costs for IRU supported by URI	Maintenance costs for IRU supported by URI
NECC partnership with NEREN	Partner with NEREN	Post-award management sustainability with NEREN	Post-award management sustainability with NEREN
UD Distributed Cores and Campus Network	Distribute UD compute cores		Cisco router
UD Data Center	4 Sunfire X4400 servers	4 Sunfire X4400 servers	4 Sunfire X4400 servers
UD Environmental Monitoring server	1 Dell server, 25 TB RAID, tape robot	2 Dell servers, 10 TB storage	
DSU network hardware and bandwidth	Packetshaper, switches and installation of DS-3 WAN	Cisco Firewall, 10 Gbic blades	4 additional campus network node connections
ME Data Center	Establish Center and Data Processing Workflow	Support Cyber-enabled research	Support Cyber-enabled research
Personnel Recruitment			
IT professional (0.3 FTE), VT	Implements shared data and computational resources.	Implements shared data and computational resources.	Implements shared data and computational resources.

Database administrator (0.5 FTE), DE	(Begins in year 2)	Integrating databases, provide database services for regional cyber-enabled efforts, including RACER recipients and ME database administrator	Integrating databases, provide database services for regional cyber-enabled efforts, including RACER recipients and ME database administrator
IT professional (0.3 FTE), NH	Implements shared data and computational resources.	Implements shared data and computational resources.	Implements shared data and computational resources.
IT professional (0.3 FTE), RI	Implements shared data and computational resources.	Implements shared data and computational resources.	Implements shared data and computational resources.
North East Bioinformatics Collaborative			
Management plan, workflow models for NEBC	Develop NEBC management plan and workflow models	Management and workflow models used for NEBC work on metagenomics	Report out on workflow models and first large-scale regional cyber-enabled research project on metagenomics.
Extend management plan and workflow model to microarray facility	Meet with microarray partners to develop virtual organization	Transfer organizational and management models to microarray facilities	Finish implementation of management models to microarray facilities
Metagenomics and Pilot Projects			
Metagenomics study of cyanobacterial blooms in Lake Champlain (VT)	Sample at three phases of a cyanobacterial bloom	NEBC spatial and temporal analysis of regional cyanobacterial metagenomes - assign taxa using RDP and RDP Library Compare	1 publication and 1 grant proposal to continue study
Metagenomics study of cyanobacterial blooms in Lake Winnepesaukee (NH)	16S rDNA surveys of cyanobacterial samples		
Metagenomics study of cyanobacterial blooms in Yawgoo Pond, Prince Pond (RI)			
Metagenomics study of cyanobacterial blooms in Sebasticook Lake (ME)			
Water Research Working group	Meet by videoconference to organize regional meetings	Regional meetings; evaluate RACER proposals; work	Regional meetings; evaluate RACER proposals; work with two groups

	around water; evaluate RACER proposals	with two groups identified by the Working Group to develop a cyber-enabled collaborative project.	identified by the Working Group to develop a cyber-enabled collaborative project.
Biannual regional meetings for cyber-enabled research	Two meetings to highlight and facilitate cyber-enabled research	Two meetings to highlight and facilitate cyber-enabled research	Two meetings to highlight and facilitate cyber-enabled research
Regional Awards for Cyber-Enabled Research (RACER)	\$20,000 (equivalent of 2 RACER awards) awards for cyber-enabled research on metagenomics	Two \$10,000 awards for cyber-enabled research on metagenomics or transcriptomics	Two \$10,000 awards for cyber-enabled research on metagenomics or transcriptomics 2 publications and 2 grant proposals for cyber-enabled regional research
Diversity Plan for Regional Watershed Project			
Watershed Project partnership program Undergraduates	28 students work on watershed research during summer (DE-8, ME-2, NH-1, RI-2, VT-12, PR-3) participate in watershed research1-week training during summer 6 students work on watershed research during academic year	29 students work on watershed research during summer (DE-8, ME-2, NH-2, RI-2, VT-12, PR-3) participate in watershed research1-week training during summer 7 students work on watershed research during academic year	33 students work on watershed research during summer (DE-8, ME-3, NH-3, RI-3, VT-12, PR-4) participate in watershed research1-week training during summer 8 students work on watershed research during academic year
Watershed Project High School Teams	1-week training during summer 23 HS student teams work on watershed research during summer	1-week training during summer 24 HS student teams work on watershed research during summer	1-week training during summer 25 HS student teams work on watershed research during summer
DE-hosted seminars on watershed research	Two seminars on watershed research hosted by DE.	Three seminars on watershed research hosted by DE.	Three seminars on watershed research hosted by DE.
DE-hosted training sessions on Environmental Monitoring, remote sensing and databasing results	Two videoconferenced training sessions for watershed partnership students on cyber tools: remote sensing and data bases.	Two videoconferenced training sessions for watershed partnership students on cyber tools: remote sensing and data bases.	Two videoconferenced training sessions for watershed partnership students on cyber tools: remote sensing and data bases.
VT, DSU and RI training sessions on modeling and career panels	Videoconferenced training session for watershed partnership students on modeling and a career	Videoconferenced training session for watershed partnership students on modeling and a career panel	Videoconferenced training session for watershed partnership students on modeling and a career panel

	panel		
Questionnaires for outreach participants	Questionnaires issued to all outreach participants. Responses aggregated and included in reporting to NSF	Questionnaires issued to all outreach participants. Responses aggregated and included in reporting to NSF	Questionnaires issued to all outreach participants. Responses aggregated and included in reporting to NS; baseline data now aggregated and compared to Year 3. Expect to see a 5-10% increase in interest in STEM careers. Same increase in interest in cyber-enabled research.
Middle School Students	(Begins in year 2)	Initiate Ambassador Program work with middle school students in each NECC state	Plan for inclusion of middle school students in Watershed Project in next year; continue Ambassador Program with middle schoolers and increase numbers of students participating.
Management and Communication			
RI-hosted NECC website	Website created, publicized throughout EPSCoR jurisdictions and through national meetings RACER award information posted Cyber-enabled research information posted	Website created, publicized throughout EPSCoR jurisdictions and through national meetings RACER award information posted Cyber-enabled research information posted	Website created, publicized throughout EPSCoR jurisdictions and through national meetings RACER award information posted Cyber-enabled research information posted
3 podcasts, two videos, one 30-minute television show made in partnership with Vermont Public Television and maine Public Broadcasting	Planning with VPT and MPB for episodes	1 podcast, 1 video	2 podcasts, 1 video, 1 30-minute television show VPT and MPB conduct viewer assessment
Ambassador Program with citizen science groups to State Legislature, state offices and middle school students	One trip with citizen science group to state legislature and state offices. Work with groups in their monitoring programs. Make presentations at their venues.	Two or more trips with citizen science group to state legislature and state offices. Work with groups in their monitoring programs. Make presentations at their venues.	Two or more trips with citizen science group to state legislature and state offices. Work with groups in their monitoring programs. Make presentations at their venues. Presentations to local middle schools about watershed and algae blooms
Annual regional NECC meetings	Annual meeting with consortium members to showcase research, plan for future regional grants	Annual meeting with consortium members to showcase research, plan for future regional grants	Annual meeting with consortium members to showcase research, plan for future regional grants

Regular NECC videoconferences of Executive Steering Committee, Technical Committee, Watershed leaders with liaisons, water working group, metagenomics group	Weekly to monthly meetings of committees via videoconference	Weekly to monthly meetings of committees via videoconference	Weekly to monthly meetings of committees via videoconference
Annual Progress Report	Yearly report to NSF EPSCoR about achievements, milestones and progress.	Yearly report to NSF EPSCoR about achievements, milestones and progress.	Yearly report to NSF EPSCoR about achievements, milestones and progress.
AAAS Consultants Visit	Annual meeting with AAAS consultants to evaluate progress and strategize about grant	Annual meeting with AAAS consultants to evaluate progress and strategize about grant	Annual meeting with AAAS consultants to evaluate progress and strategize about grant