Climate Literate Staff, Communities, and Citizenry - A Logic Model Overview

What is the current situation?	Current Projects (organized by categories chosen at the logic model meeting)	Inputs - What will the program need to invest?	Outputs - What activities/ products will the program include?	Outputs— Participation Who will the program reach?	Outcomes/Impact *Short Term Results (based on individual learning)*	Outcomes/Impact *Midterm Results (based on individual actions)*	Outcomes/Impact *Long Term or ultimate impact Change in a condition*
A) Educators (formal, informal and media) are not currently engaged in any systemic way with improving climate literacy in the Great Lakes region. Needs for improving regional climate literacy at the level of the general public and student populations are not well understood. B) Climate change will likely have significant effects in the Great Lakes region – effects which differ significantly from the effects of climate change on the marine coasts or other areas of the U.S. Sea Grant can help to meet the needs of the region with respect to climate change, but only if our staff is climate literate (knowledgeable about the potential impacts of climate at scales down to the local), supported by the chain of authority (national initiatives, network activities, etc), primed to act (through considered strategic planning) and with access to appropriate tools and expertise. C) Many Great Lakes coastal communities are not currently aware of the potential impacts of climate change in our region, are not currently aware of the need for climate adaptation planning, and do not know who to go to for climate change information and support with their climate adaptation planning. D) Many citizens in the Great Lakes region are not currently climate literate. Climate change 'myths' are frequently perpetuated by the regional media, local officials and other 'trusted information sources.' E) Climate literacy is not currently a major element in K-16 curricula. NOAA Climate Literacy Principles have not yet been adapted for the Great Lakes region nor have they been broadly adopted within the region.	A) Needs Assessment **Great Lakes Climate Change Science and Education Systemic Network (funded by NSF)** B) 1. WORKSHOPS / TRAININGS • NOAA Great Lakes Collaboration - GLC4 Modules will be delivered to GLSGN programs in October 2010. • PA – NART II workshop for SG & NOAA staff (& other interested parties) on climate literacy (planned for Jul-Sept 2010) • From the trainer workshop for cupt ERT? Conducting pre-post survey • OH Climate Webinars – OSU Climate Team • WISG and UCAR COMET developing online coastal climate training modules. Coastalclimatewiki. org already posting videos of training 2. PRESENTATIONS • Past webinars on coastal climate posted on coastal wiki.org • PA-SARP webinar planned for August • Powerpoints from National/regional training on coastalclimatewiki.org • MNSG climate change presentation on local effects on water quality • MN climate change powerpoint on climate effects on shipping • SARP Uncertainty powerpoint (MacNeill) 3. MANUALS, FACTSHEETS, BROCHURES 4. TOOL DEVELOPMENT / INVENTORY / APPLICATION • SARP I –Uncertainty Bibliography • SARP I – Communicating Uncertainty Powerpoint • SARP I – Economic Matrix • SARP I – Visualization Tools Inventory • GLC4 – Modules 5. ONLINE RESOURCES • Ning (National Sea Grant Climate Network – provides a forum for Sea Grant Extension Staff engaged in climate programming to communicate, share best practices and learn from one another • GLSGN Climate Change Whiteboard ('private' website for resource sharing) 6. MAPPING ASSISTANCE 7. PARTICIPATING IN PLANNING • CCCAI, SARP –funded GLSGN Climate Change Meeting in Chicago (June 2010) -- developed a planning framework and a starting point for these logic models • National Sea Grant Climate Network – provides an initial forum for infusion of climate issues into the national Sea Grant planning processes. C) 1. WORKSHOPS / TRAININGS • Cplus adaptation planning convene workshops/sessions – GLRI funding – NERRS/SG "Planning for Climate Change in the Great Lakes" workshops WI, OH, other locations TBD 2011. • PA – CCCAI workshop in Erie to introduce climate issues/what adaptation will mean in Erie area/ conduct needs assessment (audience- planners, natural resource managers) 2. PRESENTATIONS • ppt on "Community planning for Climate change in the Great Lakes Region" as tool for public officials & Sea Grant educators • OH Sea Grant partnered with extension to create researcher webinar series to localize issue to OH region. • WI Sea Grant climate change lecture series 3. MANUALS, FACTSHEETS, BROCHURES • OHSG is creating climate factsheets about how climate change affects different local issues (shipping, ag, water levels) • WI SG climate change publication • PA – climate change fact sheet 4. TOOL DEVELOPMENT / INVENTORY / APPLICATION 5. ONLINE RESOURCES • OSU Climate webpage *CONTINUED ON NEXT PAGE*	A) Sturtevant & COSEE leadership NSF $ Participation of Scientists and Educators B) NOAA Science Staff Time $ C) Staff $ for research and outreach D) NOAA Other federal agencies Universities $ E) 12. Sea Grant will create Great Lakes climate curricula 13. Prototype curricula will be tested with monitored classes – solicit comments from educators 14. Sea Grant will train teachers via workshops to teach how to integrate curricula into programs – professional development days, education conferences 15. Create an online resource to house curricula 16. Online Game – simplistic modeling 17. Social science/learning theory	A) Great Lakes Climate Science-Education Network Map (including analysis of strengths and weaknesses of communication pathways) Virtual Great Lakes Climate Change Community Platform Great Lakes Climate Science Whitepaper Great Lakes Climate Education Whitepaper Great Lakes Planning Document for the Systemic Integration of Climate Change Science and Education Goals, Objectives and Rcommendations for the Improvement of Climate Literacy in the Great Lakes Region B) 1. Training - Communicators to develop/ coordinate consistent messages - Seminars/engagement of researchers in training SG staff on how models work - Pilot sites for doing GLC4 modules C) Produce Sea Grant publications Convene workshops/Seminars - A. What climate change means for me? - B. How to I know climate change when I see it? - C. Researcher seminars for public/managers D) 9. Workshops, education tools, media press releases, fact sheets - workshops be researchers for Sea Grant staff - workshops for trusted sources (media etc->) - news articles 10. Online - Sea grant page(s) 11. Survey – what people already know (needs assessment) E) Staff and Educators $ Time evaluator	A) Great Lakes Climate Scientists, Great Lakes Education Practitioners (including K-16, informal and media), Great Lakes Learning Scientists B) Sea Grant – HQ, Directors, Program Leaders, extension staff, educators and communicators throughout the GL region C) Coastal community leaders, planners, managers, and stakeholders D) Coastal communities, Sea Grant, trusted information sources, stakeholder groups E) K-16 students K-16 t	A) By 2011 we will have the results of a social census and network map of the Great Lakes region in terms of climate science, climate education and the interconnections and communications pathways between the two. By 2011 we will have developed a communications framework for pulling together climate scientists and educators in a virtual community. B) Climate will be recognized as a priority cross-cutting element in national, regional, and state Sea Grant strategic plans. The outputs developed by the program will ensure that • Sea Grant supporters (congressional and state $) recognize climate change as a priority for Sea Grant action • Sea Grant programs are encouraged to plan for and engage in climate change programming • Sea Grant staff are encouraged to include relevant climate change elements in their programming C) Coastal communities, stakeholders, coastal community planners and managers learn about climate change via Sea Grant publications workshops and seminars D) By 2012, Sea Grant staff are informed about climate change impacts through the science community E) By 2012, >700 educators in coastal communities will be aware of climate literacy principles	A) By 2012, we will have a plan of action for systemic improvement of climate literacy in the Great Lakes region. B) By 2012, All GLSGN staff will be climate literate and able to identify climate implications in their issue areas. The outputs developed by the program will ensure that • Sea Grant climate change programming is built on sound science (not perpetuated by myths) • Sea Grant staff are able to address the common arguments against climate change and build a foundation for communication and consensus-building • All Sea Grant staff are able to identify points where climate information may be important (or useful) to their clientele C) Coastal communities will seek Sea Grant support and information on climate change Change attitudes of coastal community planners and managers regarding climate change and its impacts Coastal communities can equate climate change to issues/planning they already understand – e.g., erosion, flood D) Trusted sources for information (media, state/county/city officials, Sea Grant staff, NGOs, etc) are educated so they can deliver messages about climate impacts to citizens E) By 2013, teachers in 15-20% of Great Lakes coastal schools have the knowledge, tools, resources and skills to incorporate climate literacy into their programs	A) By 2015 we will have implemented the highest priority recommendations of the action plan (pending success in NSF out-year competition or other funding sources). B) By 2015, the GLSGN will integrate climate messages into 75% of ongoing and new outreach programming in issue areas affected by climate change. The outputs developed by the program will ensure that • Sea Grant communications about climate change are consistent and feed into the larger issue rather than fragmented and potentially contradictory Sea Grant staff are able to model for clientele ways to address climate impacts and adaptation in context of their 'normal' activities. C) By 2015, 78% of GL coastal communities and stakeholders will recognize Sea Grant as an authoritative source of unbiased information on climate science and climate change By 2020, 90% of GL coastal communities will agree that preparing for and adapting to climate change is necessary D) By 2020, 50% of coastal citizens will be literate about climate change impacts in the Great Lakes E) By 2015, 10-20% of Great Lakes coastal schools will infuse climate literacy into their science programs Students will be climate literate, be able to think critically about science issues…

Assessment of stakeholder needs is ongoing and iterative

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	6. MAPPING ASSISTANCE						
	7. PARTICIPATING IN PLANNING						
	D) **1. WORKSHOPS / TRAININGS**						
	2. PRESENTATIONS						
	3 MANUALS, FACTSHEETS, BROCHURES • PA - NIE pages on climate change for Erie Times						
	4. TOOL DEVELOPMENT / INVENTORY / APPLICATION						
	5. ONLINE RESOURCES • PA SG climate change webpage • MI Sea Grant - Web intro to climate change adaptation and mitigation, community planning for climate change						
	6. MAPPING ASSISTANCE						
	7. PARTICIPATING IN PLANNING • Sea Grant Mini-grant – GLRI-NERRS project- A regional needs assessment of planners, mayors						
	8. WORKSHOPS / TRAININGS						
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	13. MAPPING ASSISTANCE						
	14. PARTICIPATING IN PLANNING • Sea Grant Mini-grant – GLRI-NERRS project- A regional needs assessment of planners, mayors, & other community officials is currently underway & will involve interviews, focus groups and surveys, & other community officials is currently underway & will involve interviews, focus groups and surveys						
	E) **1. WORKSHOPS / TRAININGS** • CCEP						
	2. PRESENTATIONS						
	3. MANUALS, FACTSHEETS, BROCHURES • OH SG is updating and creating a Great Lakes climate curricula						
	4. TOOL DEVELOPMENT / INVENTORY / APPLICATION • Great Lakes literacy standards						
	5. ONLINE RESOURCES • OH is creating a website to hold GL Climate curricula						
	6. MAPPING ASSISTANCE						
	7. PARTICIPATING IN PLANNING						

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