Transcripts

University of North Carolina
Coastal and Marine Science Planning Retreat

August 29 - 30, 2013

Center for School Leadership Development
Chapel Hill, NC

Facilitated and Compiled by:

North Carolina Small Business & Technology Development Center
A business advisory service of The University of North Carolina System

The SBTDC is administered statewide by NC State University on behalf of The University of North Carolina System and is operated in partnership with the US Small Business Administration

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EXECUTIVE SUMMARY

This document contains the complete transcripts from the Coastal and Marine Science Planning Retreat hosted by the University of North Carolina General Administration (GA) August 29-30, 2013. The retreat was facilitated by the Small Business & Technology Development Center (SBTDC), the business advisory service of the UNC System. The retreat was convened by GA in response to the AAAS report presented to the Board of Governors in June 2013 with the intent of identifying actions that would position the UNC coastal and marine science enterprise for maximum success. Approximately 30 representatives of the programs at six constituent campuses and other stakeholders participated. The transcripts were edited by SBTDC and are presented in the order in which discussions occurred. Next steps are summarized below.

Following is a summary of key outcomes, observations and decisions from the retreat:

Participants Evaluated the Current Situation
Through an introduction by UNC Vice President for Research and Graduate Studies Dr. Chris Brown and a series of facilitator-led critical thinking exercises, participants evaluated the current situation related UNC's coastal and marine science assets.

Actions Supporting the Goals & Objectives Developed
Participants developed action steps for the two main goals derived from their evaluation of the current situation. Objectives and actions have been translated into action tables for UNC's use as a management tool in further development of an overall plan.

Next Steps
Following the session, SBTDC committed to provide transcripts of the session, including the action matrices. Transmittal of this document to UNC GA completes these steps.

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SESSION OPENING

Objective

The following objective for the two-day session was identified before the session in consultation with UNC General Administration (GA) leadership. The objective was offered for consensus as follows:

Develop a framework for a plan that positions Coastal and Marine Sciences for success.

Agenda

Following is the participant agenda as posted during the session. Topics were covered in order, but some were shifted or modified to accommodate in-depth discussions. All topics were covered.

DAY 1
Welcome & Introductory Remarks
Participant Introductions, Overview of Agenda
Factors Affecting Planning
Competitive Position of NC Assets
Planning Assumptions
Develop Future Vision and Focus Areas for Planning
Wrap Up & Prep for Day 2
Adjourn

DAY 2
Reconvene
Review Day 1 Outcomes
Review & Confirm Planning Focus Areas & Goals
Develop Strategies & Actions (breakout groups)
Report Out & Summarize Plans
Wrap up & Next Steps - SBTDC
Wrap up & Next Steps - GA
Adjourn

Ground Rules

The following ground rules were suggested and adopted by group consensus as the operating basis for the two-day session:

1. < 10 ground rules
2. Everyone speaks – respect the speaker
3. No idea is dumb
4. Use headlines
5. Use parking lot
6. Avoid sidebars
7. Be flexible
8. Honor start & end times
9. Be nice to the facilitators
10. Session is a “safe space” for discussion

Items 1-9 were suggested by the facilitators and adopted by the participants. Item 10 was offered as a suggestion by a participant with no objections from the group.

Consensus

The following definition was proposed for use during the planning session:
IS: "I can live with that and support it."
IS NOT: "I think that is the best solution."

Parking Lot

Ideas, decisions or actions that were deemed important but not germane to the planning process were captured on the Parking Lot flip charts and are listed below. Only one item was listed by the end of the two day session. **Planners should review this items and determine appropriate follow up actions.**

1. The diversity of educational opportunities for students would rival any state in the nation.

COASTAL & MARINE SCIENCE CURRENT REALITY AND PLANNING FOCUS

UNC Vice President for Research and Graduate Studies Dr. Chris Brown was invited to provide perspective on the current situation and context for this planning session. His observations and correspondence from UNC President Tom Ross outlining the expectations for the session are included below for reference:

UNC plays a key role in the discovery, dissemination, and application of knowledge related to coastal and marine science

- Activities at 6 campuses and 4 field stations with state, with national, and international reach
- Recognized by BOG in as an "Area of Excellence" (*Our Time Our Future*, p. 61)

Stemming from interest/inquiries from the UNC BOG, President Ross called for a review of coastal and marine science activities:

> "…to ensure we are operating as efficiently and effectively as possible without unnecessary redundancy and in a manner in which our programs demonstrate their complementary nature."

We know:

- UNC has formidable assets in coastal and marine science;
- The fiscal outlook is constrained;
- The BOG is looking for a system-wide plan to move forward;
- UNC can strengthen coastal and marine science by enhancing key areas of excellence, coordinating activities, and exploring operational efficiencies.

In step with the BOG emphasis on coastal and marine science (evidence - *Our Time Our Future*) we must work <u>as a system</u> to:

- Consider the AAAS recommendations and other ideas -
- Coordination and sharing
- Highest and best use of our assets
- Innovative academic programming
- Communication internally and externally
- Develop a forward-looking implementation plan
- Report to the BOG by the end of the year

Correspondence from President Ross to the Chancellors:

To: Chancellor Miller, UNCW
Chancellor Woodson, NCSU
Chancellor Folt, UNC CH
Chancellor Becton, ECSU
Chancellor Ballard, ECU
Chancellor Belcher, WCU

Re: Expectations for Upcoming Coastal and Marine Science Meeting

On August 29 and 30, your institutional leaders in coastal and marine science, as well as Chief Research Officers, will be gathering in Chapel Hill for a planning retreat. This meeting was scheduled as a direct result of the AAAS report presented to the BOG in June. You should know that *this retreat will take place in a context that is different and, perhaps more significant, than many of the discussions of past years. This retreat will focus on decisions effecting future operations and investments in coastal and marine sciences, as well as the current and projected funding outlook. I ask that you urge your institutional leaders to come to the retreat and to be prepared to think outside of their own organizational constraints about new solutions for the best alignment of existing resources that will allow us to position the entire enterprise for maximum success. In the current fiscally-constrained environment, demonstrating the will to find and implement operational and programmatic efficiencies is a critical step that very likely must occur prior to any future growth.* Your support is crucial to this process and I hope you will encourage your staff to do attend this meeting and bring along their best uninhibited thinking.

Thanks,

Tom

Thomas W. Ross
President
The University of North Carolina

STEEP Analysis

STEEP is an acronym for several primarily external factors which should be considered in analyzing the present situation. It stands for:

Social
Technological
Economic
Environmental
Political (including Legal & Regulatory)

STEEP represents factors which an organization should understand well when planning. These factors often require additional research or education before a planning event occurs to fully understand the background and current trends. It is important to understand how these conditions may impact an organization's competitive advantage. For example, an organization might view "regulation" as a critical political impact.

A STEEP analysis represents your best estimate of what might occur in the future. It is a prediction, and as such, should be based on research and fact-based data. It is best used to guide an organization in assessing potential problems or risks and incorporating mitigation strategies in their plans.

While it should be data-based, a STEEP analysis does not provide absolute answers. A STEEP analysis is not intended to produce accurate predictions but to prepare leaders for environmental conditions which might occur.

The STEEP analysis conducted is represented by the tables on the following pages. Participants were posed a central question: Define the external factors from each of these categories that may affect NC's coastal & marine programs as a whole and affect our ability to position as a whole.

Participants generated a large number of ideas regarding the external factors affecting their planning. Participants were invited to review the factors during the retreat and immediately before beginning the breakout sessions to identify actions on Day 2. They were reminded to consider the factors in determining actions. After the retreat, the facilitators grouped the factors in each category to provide additional clarity and to help identify linkages among the categories. The broad categories of external factors and easily identifiable linkages are presented in the table on the following page.

The color-connected blocks represent direct linkages across categories. **Many more linkages are possible than those shown**. Some of the factors were considered by participants in identifying actions, but further examination of the linkages may yield additional ideas that can be applied or used to add specificity to the identified actions. Your team should examine these to best understand the interrelationships of the factors.

The detailed STEEP factors tables follow the linkage table.

STEEP Analysis: Linkages Across Broad Categories

Social	Technological	Economic	Environmental	Political
Skeptics of Science				Devaluation of science
Social interactions	Social media – outreach	Collaboration		
	Connections with global partners	Globalization of economies		
		Communicating economic value		
Leadership				Leadership perspective
	Enhanced information availability		Environmental literacy	Education of political forces
	Research		Research	Political priorities
	Teaching	Cost of higher ed		Political party divide
Changing demographics		Increasing economic divide		
Long-term sustainable communities			Sustainability	
			Planning	Role of science in policy
		Boom-bust development practices	Coastal development	
			Environment vs. Economy	
		Decreased dollars	Environmental funding decreasing	
		Increasing costs		
		Increased competition for funding		
		Alternative funding		
Aging population	Infrastructure factors		Pollution	Environmental agencies
	Specific disciplines		Habitat / land loss	
			Climate	

Factors Affecting Planning - Social Factors

Changing demographics

- Demographics of communities are changing
- Diversity balance
- Education of poverty
- Poverty
- Diversity (representation and engagement)
- Cultural representation
- Population continues to concentrate at the coast
- Population growth
- Geographical mindset – Piedmont perspective vs. coastal perspective
- Tendency of the population to prefer living in coastal area
- Visitors (new residents) vs. (traditional) residents
- Coastal development is pressuring local cultures
- Perceptions of the coastal communities
- Social justice

Long-term sustainable communities

- Debates re: sustainable definition
- Relationship of topic to community - important or not important
- Functional environments are increasing in social value, societies value functional environments

Leadership

- Changes in leadership
- All leaders – no leaders
- Top down vs. bottom us progress
- Lack of consensus on issues
- Turf / Cliques

Skeptics of science

- Lack of engagement in science
- Social perception disbelief in science

Aging population

- Faculty aging
- General population is aging
- Succession planning
- Employment
- Social perception disbelief in science

Social Interactions

- Electronic means for “interactions”
- Interpersonal interactions among faculty, directors of all our programs
- How do you interact with others

Miscellaneous

- Academic mission and identity of university
- Politics is social
- Global competitiveness
- Climate

Factors Affecting Planning - Technological Factors

Enhanced Information Availability

- Information at the fingertips of individual crowd sourced solutions to problems
- Big data management issues and capacity
- Technology data overload
- Translation of massive data into useful products, policies and practices
- Growing availability of "big data" and the tools to analyze it in real time
- Generation of large data sets
- Information integration to address specific issues
- Improved communication and outreach

Teaching

- New ways of teaching classes and distributing locations – video conferencing, MOOCs, etc.
- Advanced Learning technologies
- Online education
- Lack of common virtual classrooms and online courses
- Online learning, virtual schools will make experimental learning even more critical
- Technology for online teaching
- Technology replacing hands – on experiential learning
- Distance education collaboration – free courses
- Visualization

Infrastructure Factors

- Technology changes
- Salt water corrodes tech equipment
- Remote areas have limited tech support (staff) difficult to hire / keep
- Need for IT
- Lack of integration / capability
- What to do with obsolete items – quick turnover
- Cost of access and changing technology
- Decline in costs for technology
- Cost exceeds utilization
- Cost exceeds budget
- Cost – sustainability in coastal environment
- Energy use / availability

Factors Affecting Specific Disciplines / Issues

- Potential sources of pollution related to hog industry and old fashioned way of dealing with waste (lagoon)
- Resource extraction - techs and impact
- Energy related technology – wind power, fracking
- Energy exploration will affect coastal systems
- Energy use / availability
- Development of rapid tools for environment / public health
- Promoting outdoor activities

Research

- Environmental observing and data management will become increasingly important
- Remote sensing vs. ships
- Research vessel access
- Sensor development and robustness
- Proliferation of sensors – "big data" problems
- Citizen scientist – with proliferation of mobile devices
- Cross correlation of results

Social media – outreach

- Social media can drive opinions and action rapidly
- Community engagement through social media

Connections with global partners

- Communications, opportunities and styles
- Information is global – competition from anywhere

Miscellaneous

- Results vary – " not sure says the committee"
- Nano – everything with ecosystem perspective
- Surveillance
- Access to the web
- Interest in traditional technologies (ex. Boat building)

Factors Affecting Planning - Economic Factors

Decreased dollars

- …on all fronts – state, federal, biz, NGO, foundations, etc.
- Federal funding is decreasing
- State support is continuing to drop
- Less grant funding
- Reducing federal and state research support
- Grant funds for environmental research are drying up
- State support shrinking
- Federal support shrinking
- Budget!! Reduced state budgets
- Flat or declining funding for R & D at the federal level
- Decline in funds
- Declining investment in K-12, CC and university by state
- Decline in the state support for higher education

Increasing Costs

- Increasing costs of human – human interaction in extension / outreach
- Costs of data collection vs. modeling

Higher education too expensive

- …for many families
- Student financial aid more lending to allow an increase in tuition

Collaboration

- is messy to fund
- Sharing facilities / equip / expertise for efficiencies
- Learning to share money

Increasing economic divide

- Wider gaps rich / poor
- Social justice challenges with coastal economies and business

Increased competition for funding

- requires strongest possible teams
- More competitive for federal grant funding to support programs – alternate funding sources need partnerships in private funding sector
- If other states invest, they will outcompete us and poach our faculty

Alternative Funding

- What are **alternative reserve stream** for research focused orgs
- Translation of basic research into products and services
- Genomics and other omic's
- Directing philanthropic investors
- Need opportunities to grow new small businesses related to marine and coastal science
- Is marine science a growth industry?
- Professional resources, building corporate partnerships, more investment into the field

Communicating economic value

- …to public
- Need to demonstrate ROI (broader impact) for research
- Moving among institutions
- Efficiency / (cost cutting) changes can hamstring operations
- Benefit analysis that is rigorous
- Growing belief that the only benefit of higher education is economic (jobs)

Boom – bust development practices

- Tension between developers who want to make money from marine coastal areas and communities

Globalization of economies

- Global economy – impacting local regions
- More partnership with international community

Miscellaneous

- Increasing female economic parity
- F & A sharing is based on traditional splits
- Human resources
- Valuation of natural resources
- Privatization

Factors Affecting Planning - Environmental Factors

Environment vs. Economy

- Understanding business climate changes
- The environment takes a "back seat" to business / economics in NC for the past several years
- Push to put an economic value on marine ecosystems; Valuation of resources
- Conflicts between economic developers and protecting WQ, habitat, fisheries
- Wealth generation drives too much decision making
- Is the economy too weak to value coastal quality ecosystem
- Environmental is a curse word in certain circles
- Valuing ecosystem risks losing other environmental values
- Value $ vs. other for ecosystem services
- Changes in private sector needs

Pollution

- Coastal pollution raises seafood prices
- Runoff – WQ and habitat losses
- Wastewater management
- Eutrophication
- Acidification
- Shellfish losses and bacterial pollution
- Light and noise pollution
- Agricultural runoff

Coastal development

- Coastal industry development = controlled impact but allow growth
- Cost sustainability – not fast returning, desirability to live in harsh region, stupidity of populous
- More people = less natural resources and diminished environmental quality
- Everyone wants a beautiful coast, but few want to make changes to keep it beautiful
- Hazards vs. people in coastal zone
- Population impacts
- Open space and open infrastructure

Research

- Ability to do "risky **research"** vs. "safe research"
- Growing need for more research on the impact of enhanced climate changes – tied to more funding – lack of resources
- Study vs. muddy the waters
-

Planning

- No long-range planning about environmental consequences of social and economic policy
- Environmental regulation is split between state, federal, local – not well coordinated
- Absolutely no national plan or vision for coastal management

Environmental literacy

- …Not just kids
- Education and preparation for environmental changes
- Education needs

Habitat loss / land loss

- Less coast
- Shorelines change and habitat damages
- Loss of natural resources
- Increased / changing salinity regimes
- Ecosystem restoration
- Invasive species
- We don't realize what we've lost in our natural resources
- Shellfish losses and bacterial pollution
- Adaption to increasing numbers and severity of natural disasters
- SLR, Hurricanes, Etc. – pollution, fisheries
- Reproduction of: Fish, habitat, fishing, families
- Sustainability
- Need a high catastrophe at the coast to drive activities
- Pollution, natural impacts and development in areas that lead to oceanic coast (rivers, lakes, dams, wetlands, etc.)
- Ecological impact of natural disaster on shore lines

Sustainability in harsh environments

- No such thing as sustainable
- What is sustainable? Everyone wants a different definition – same re: green, etc.

Environmental grant funding is lower

- Changes in government investment and priorities
- Reduction in grant support at all levels
- Lack of budget certainty
- Competition for national resources
- Traditional fund is gone, void yet to be filled if even

Climate

- Local vs. national vs. global views of climate change
- Regional climate shifts
- Storm intensity and damage (climate, weather, developments)

Miscellaneous

- Food safety requests exceed budgets available
- Large scale commercialization of marine industries
- Safety of marine life
- Clean-up vs. prevent
- Instant gratification
- Water resources

Non-Environmental Factors Listed

- Little return on investment
- No raises for 5 years
- Widening rich / poor gap
- Gentrification
- Disappearing in middle class

Factors Affecting Planning - Political Factors

Leadership Perspective

- State leadership may not value education or the environment as highly as in the past
- Trend toward micromanagement of UNC System
- Legislative support
- Decreased funding of science
- Perception of waste

Political Priorities

- What is our strategy for serving North Carolina?
- Conflict of values among population for growth strategies
- Pendulum changes vs. strategic planning
- Sides taken – economy or environment
- Focus on jobs as a result of government spending
- Land use rights vs. environmental protection
- Uncertainty about priorities
- Short term priorities

- **Devaluation of science**

- Dismissal of science based decisions
- Denial of science
- Decrease in respect for scientific findings
- Politics trump science, not consistent with political agenda

Environmental Agencies

- Agencies supporting / representing environmental causes are weak and under attack
- Coastal commissions are dominated by politics (and not science or public welfare)
- Appointees to panels have roles beyond elected officials

Divide among political parties

- Increase in political extremes and increasing dysfunction of decision making at all levels; Gridlock
- Ideological extremism
- Marginalization of those not in power

Role of science in policy

- Perspective / priority of research / science in coastal and marine issues
- Science can inform decision making, but only when the process incorporates it and values it
- Pro-active vs. reactive approaches to environmental policy changes
- Political, economic agenda trumps truth / fact / science
- No science consultation
- Advocacy vs. objective science
- Objectivity vs. advocacy

Education of political forces

- Uneducated representation
- Learning curves of newly elected leaders
- Public science education lack
- Lack of science knowledge / respect by elected officials
- Role of the media
- Understanding science's role in policy development
- Visibility
- No historical memory
- Lack of understanding the value of scientific research

Miscellaneous

- Why would I want my son to be a scientist?
- Re-write history, science, ramifications, blame
- Artificial boundaries
- Training staff on complex topics
- Leadership engagement at state / national level for science
- Politics trumps reasons
- Local politicians are wary of university scientists (promote regionalization)
- University departments (Dept. heads) have control over $ and faculty

COMPETITIVE POSITION AND STRENGTHS/WEAKNESSES OF UNC ASSETS

A competitive analysis is a key element of the environmental scan. It is conducted to identify current and potential competitors and their strengths and limitations. Competitors' strengths are analyzed to determine what risks they create for the organization. Competitors' limitations may also reveal advantages and opportunities for you. A comparison of your strengths and weaknesses can form the basis for strategies and actions.

For this exercise, facilitators led the total group in discussion of the analysis and then broke into three small discussion groups: Academics, Research and Public Service (Outreach). Each group was first asked to discuss and identify the strengths and weakness of the UNC coastal and marine science assets and to consider the strengths and weaknesses as an overall enterprise. After discussion, each group rotated, reviewed the work of their colleagues and added to the identified strengths and weaknesses.

The strengths and weaknesses identified by the participants are shown below:

Academic Strengths & Weaknesses

Strengths

- Comprehensive and diverse
- Produce more grads than others in region/area
- No export experts
- Coastal labs and facilities exist
- Experimental learning at undergrad level.

Weaknesses

- Communication
- Could improve student awareness of opportunities across or within system
- Programs unknown outside state (know faculty but not institutions)
- Lack of coastal science inter-institutional courses. Shared model- foreign language course
- Lack of holistic perspective opportunities across campuses
- Lack of student diversity
- Coastal labs and facilities could be used more in academic programs
- Need greater flexibility for inter-institutional education
- Capacity in facilities at field lab
- Lack of Dist. Ed. Presence
- Collaboration

Research Strengths & Weaknesses

Strengths

- Collaboration
- Diversity yields opportunity for broad external funding
- Broad range of expertise
- 3 regional facilities
- Entrepreneurial attitude among researchers
- Interstate (and others) collaboration opportunities
- Work together well across units
- DUNCOC
- Duke, CC, and state assets
- GA statewide communication
- Coastal and marine science has been recognized as priority for BOG

Weaknesses

- Communication
- Would do better working together if knew each other better
- Remote location of facilities makes on-campus teaching for researchers difficult
- GA statewide communication
- NC policy makers do not value research results and expertise
- Outreach to nontraditional funders could be better
- Lack of housing, lack of mobility of people and assets
- Collaboration
- Big boat and expertise lost.
- Lack of policies for sharing, and mechanisms
- Interstate collaboration opportunities
- Internal seed funding (sea grant, etc.) is not large enough and in decline
- DUNCOC
- Distributed facilities makes communication challenging
- Integration of social sciences in research /or a lack of social sciences in state

Public Service Strengths & Weaknesses

Strengths

- Emphasis on marine and coastal policy
- Some nationally prominent examples of outreach
- Received recognition in Science Ed. Programs at our University that align with STEM content with outreach focus
- MBCOI at least we are trying
- Outreach builds trust in the community
- UNC-TV connections
- Marine Quest – k-12
- Sea Grant network
- Communications
- Outreach to community is part of UNC mission
- Field facilities connected to university yet local and engaged with community.

Weaknesses

- Collaboration
- Investigate aquariums etc. at coast – utilize SG network
- Execution varies among institutions
- Lack of consistent tech transfer process
- Loss of CISEE – SE education support and connections
- GA statewide
- Faculty/staff not rewarded (in general) for outreach efforts
- Marine policy people not more engaged/active (no reward system)
- Communications
- Diversity engagement education needed improvement
- UNC-TV radio social media need more contact and online presence.

Competitors, Models & Characteristics

After identification of strengths and weaknesses, facilitators led the total group in identification and discussion of other institutions, institutes, etc. that the participants considered as competition for the UNC System coastal and marine science enterprise. Participants also offered several options that might not be considered direct competition but which might present models for further study either because they have been successful in one or more areas or because they represent a failed model to learn from. Participants were then asked to state one or more unique characteristics of each competitor that caused them to be listed. **Competitors marked with an asterisk (*) were identified as strong candidates for further study.**

The competitors and models identified and the stated characteristics are shown in the following table. One caution is that the characteristics represent anecdotal information, and no data were available to support characterizations recorded. However, these likely represent organizations for further prioritization, study and possible benchmarking as the full UNC coastal & marine science plan is developed.

Competitors/Models

Competitor / Model for Comparison	Unique Characteristic(s)
VA Institute Marine Science	State supported public service
Institute Marine Env. Tech (MD) *	Effective coordination
Hatfield Marine Science Ctr (OR State) *	Shared resources – federal and state public outreach
LA University Marine Consort.	System-wide center – but fractured.
Skidaway (GA)	Just merged with UGA – potential failed model
Stockholm/LUND	Strong research focus – unique discipline
CSIRD (?) (AU) (QUASI-GOI)	
University Southampton	UK Oceanography program vessels
University MD System *	Distributed campuses UMES program – consolidated
University of Washington	Major research university strong overall. Strong federal support
Rutgers *	Outreach. Investment in consolidated program
University of Florida	Similar to NC. FL Inst. Oceanography
CA Institutions	Similar to VIMS – state supported research (fisheries
Woods Hole *	Private non-profit. Kick-ass development office
SCRIPPS	Undergoing transformation – full academic institution.

PLANNING ASSUMPTIONS

This brainstorming exercise was conducted to help participants identify assumptions about the future direction for coastal & marine sciences, strategic plans and strategic plan development. **Participants identified the following assumptions which should be used to assess risk, identify data needed to verify the assumptions and develop risk mitigation approaches.** Assumptions marked in **bold** were identified as key assumptions by consensus of the participants.

1. There is "appropriate" redundancy (a comprehensive range of expertise).
2. We have a diverse coastal region.
3. **Ongoing challenge to the economic and other value of the enterprise and the coastal resources and communities.**
4. Diversity of geography and culture.
5. **The efficient use of resources will be questioned – internally and externally.**
6. There is a need to consider Duke's and multiple federal/state labs and program assets in our planning.
7. Marine Sciences is a very competitive field. Being competitive is critical.
8. We don't always have all the people capabilities on the NC team to be competitive.
9. **No new financial resources from the state.**
10. **Static or declining federal resources.**
11. **We have capacity in place to meet some of the recommendations of the AAAS Report.**
12. We have limited administrative tools to meet some of the recommendations.
13. Each program operates in a complex university ecosystem.
14. Any plan we create must contain long and short term goals.
15. A common understanding of measures of success is needed.
16. Success is different/varied.
17. The coastal and marine science academic degree programs have intrinsic value.
18. **What we accomplish here could set an important precedent for other academic programs.**
19. IP that can be monetized.
20. **This is a planning exercise that is valued by our campus/university leadership**.
21. This is an ongoing process that needs support
22. Students will benefit from improved academic programs.
23. Our success depends on continued collaboration.

DRAFT GOAL STATEMENT

Overnight, the facilitators reviewed the background information and ideas generated during Day 1 and drafted two proposed goal statements for the group's consideration. The goal statements provided for review and discussion were:

1. Demonstrate improved communication across UNC marine science assets and to external stakeholders.
2. Demonstrate increased collaboration with internal (UNC) and external partners.

TRANSLATING GOALS TO ACTION

Following discussion of the goal statements and review of the current situation material, participants engaged in critical thinking exercises to identify actions required to achieve the goals. Participants were assigned to one of three breakout groups with each group focusing on a specific area: Academics, Research or Public Service. The result of this work is depicted in the attached action matrix files. The total group reconvened at the conclusion of the breakout exercises and briefed the full group on their recommended actions. A few minor inputs were noted and have been captured on the action matrices.

Raw flipchart and worksheet notes of the goals, objectives and actions are shown below.

Public Service Workgroup Notes

Definition of Public Service: Any activity that engages a constituency outside of normal academic institutions.

Development (funding)

Education
- K12
- Informal education
- Workforce training/professional development
- Direct public
- Media.

Professional Societies

Business and Industry
- Tech transfer
- Database access/information sources
- Expert advising
- Consulting

Government/Public Policy
- Politicians
- Expert advising
- Committee service
- Database access/information sources

Public Service Workgroup Notes, cont.

Communication

1. Inventory of public service and outreach activities and information resources
2. Accessible (REACH-NC) (MBCOI) – make - sea grant expertise – inventory
3. Weekly e-digest
4. Social media (coordinated)
5. Local communication resources
6. Formal mission/structure and compensation for advising state (e.g., Inst. of Govt.)

Collaboration

1. Sharing tools and best practices
2. Resources and infrastructure to support collaboration
3. Administrative tools and mechanisms to support collaboration: identify Current Best Practices
4. NC Marine and Coastal Sciences Conference. Internal – External – Supports Collaboration
5. Empowered Coordinating Entity. Model(?) – Staffed.
6. Make use of "Shared Services" with respect to development/advancement ($).

Academics Workgroup Notes

1. Catalog inventory all undergrad/grad courses/website (and degrees) at UNC-GA
   - Enrollment, graduates
   - Faculty teaching
2. Sweet spots for course collaboration
3. Addressing issues of credits/enrollment/tuition/timing
4. Undergrad inventory
   - List of accessible field sites – internal with contact information – institutionalized
   - Inventory labs, equipment, dorm space and contact
   - Pictorial map of assets
5. Distinguishing characteristic. Partner with key, relevant (branding). Community College MS programs/resources
6. Branding Inventory above suggestions and then brand it.
7. University level $ issue – language consortium model for sharing credits, tracking, approving courses, etc. GA Maggie O'Hara and Alisa Chapman - UNCG faculty German
8. * UNC System minor in Marine Sciences (branding) easier win, could work with the matrix 18-21 credit hours, more flexibility in course options vs. minor.
9. Nice webpage on careers in Marine Sciences – use as model – mariesciencescareers.net Branding content – video
10. Evaluate inventory of courses and identify course for highest potential to deliver online (redundancy may be one criteria, who it best maybe one criteria)
11. Graduate
    - Note: much more teaching associated with research
    - More mentoring vs. undergrad
    - Story "oceans and ……" linkage between disciplines. Opportunity for joint research and funding

Academics Workgroup Notes, cont.

12. Oceans and …….. (branding)
    - Health/medicine/vet science/public health
    - Law/policy
    - Business
    - Education
    - Minors/concentrations for both UG and G
    - Issue to address – is "ocean" too narrow? Solution – can we use visuals to capture diversity?
    - Align language brand, position with emerging funding and inquiry.
    - Explore professional masters and certificate program (15 credits can come from existing courses). Easier to initiate administratively and ties into online learning.
    - Collaboration with external partners/resources
    - "Jobs" message threaded throughout proposed actions and branding. Undergrad and grad, minor/cert program and career website.
    - Explore/offer courses that meet professional continuing education requirements – more paying customers.

Summary

1. Inventory all UG/G courses, degrees, field labs and sites and create and brand website to make it easily accessible.
2. Create pictorial map of assets and marine careers site.
3. Determine sweet spots for course collaboration and address credit/enrollment/tuition issues.
4. Capitalize on partnerships with community colleges as key distinguishing factor.
5. Created UNC-wide minor (s) utilizing existing inventory. System-wide summer field course related to UNC-system minor.
6. Align graduate programs with "Oceans and ….." Federal initiative to create career-ready graduates and engage all UNC schools.
7. Explore graduate certificates and professional science masters degrees.

FULL GROUP DISCUSSION: MODEL FOR "CONSORTIUM COUNCIL"

At the conclusion of the workgroup breakouts and total group action briefings, several participants expressed a desire to discuss the overarching structure that they felt would be required to facilitate some collaboration. The basis for discussion was the loss of the Duke/University of North Carolina Oceanographic Consortium (DUNCOC) concurrent with the loss of R/V Cape Hatteras. Participants noted that DUNCOC was one of the few collaborative entities to survive over time, and that there have been other "marine councils" which had varied success at fostering collaboration.

The facilitators led the total group in a discussion of DUNCOC and identification of what worked and what did not work as a collaborative entity. Additional notes were captured regarding the councils in general. Those notes follow:

DUNCOC: What Worked

- Brought researchers together
- Informal funded by contributions by GA funneled through UNC – Duke (how much?)
- Managed a fairly sophisticated ship operation
- NC marine science components were presented at national level through DUNCOC
- Long-standing, widespread participation
- Viewed as a shared asset
- Clearly defined mission and other activities revolved around it
- Provided organizational structure to receive federal money.

DUNCOC: What Didn't Work

- Non-MS Scientists that didn't use ships didn't buy into it. Formally a part of it, but weren't part of it
- Ship's gone
- Didn't communicate value of the ship to the state. Didn't get out of the University
- Going forward include/consider key external stakeholder for involvement/ DENR others investment in report(s) / communications/council, etc.
- Only 20-30% Marine Scientists were using it and difficult to justify to remaining scientists.

Marine Science Councils

- Existed in past and was broader than a ship
- Well intended, but little focus, or core mission, no resources, etc. – interest wanes
- No institutional memory for it
- Worked temporarily when Erskine was pursing $
- Haven't included Duke and/or other external partners
- One version worked – Chris Martins has knowledge / sanctioned council.

NOTE: This discussion occurred at the conclusion of the event and with several participants having departed. The concepts above have not been incorporated into the recommended actions overall. The Public Service group identified a "Coordinating Entity" as an action item, but this concept was not fully developed. Further examination of the concept in light of the discussion above is recommended.

NEXT STEPS

We recommend that UNC GA leaders complete the following:

- *review the transcripts and action matrices*
- *share these transcripts and action matrices with the participants*

Additional work will be required to determine measures, owners and timing for each objective. SBTDC strategy development specialists have committed to follow up with GA to provide recommendations for moving forward with this process.

Other Next Steps listed at the conclusion of the planning session were as follows:

WHAT	WHO	WHEN
Raw Transcripts	SBTDC	1 week
Transcripts & Plan documents	SBTDC	2-3 weeks
Follow-up meeting/Review	SBTDC, GA	9/24/13
Distribute Notes of Planning Retreat (with next steps memo)	GA	1 week
Prepare briefing memo for President Ross' progress update to BOG	GA	10/4/13

Raw transcripts were transmitted to Chris Brown 9/6/13.
Transmittal of this document, the attached plan documents and scheduling of the follow up meeting completes these steps.