Overview of Meeting (General)

The panelists were presented with an overview of CRCP and the main research and monitoring programs (see agenda, Appendix 1). The presentations covered a wide range of the CRCP’s internally-funded research projects, and foundational programs. There was a high level of participation by NOAA staff, visiting stakeholders, partners and the panelists. There was a positive and supportive tone to the discussions, with a genuine desire to identify potential areas for improvement to conserve coral reefs more effectively.

General Observations and Cross-cutting Issues:

The panel members are generally very impressed and highly satisfied with the scope and quality of the work conducted within the CRCP program. The program is actively engaged in science and management of coral reefs, with demonstrated successes on both fronts. The mapping and remote sensing products, especially Coral Reef Watch and emerging Ocean Color products, are signature programs that are highly used by scientists and managers. The CRCP should build on these successes, and the propensity of scientists and managers to use maps and visual information for decision making, by incorporating these products within all of the thematic priorities (Climate Change, Land-based pollution and Fisheries). There is a disconnect between the science and the management in several areas, such as Ocean Acidification, Genomics, Biodiversity (ARMS), and the coral reef monitoring program (NCRMP), for a variety of reasons discussed in individual reports from the panelists. NOAA should maintain these
innovative research programs, but work towards more integrated science and management, with stronger community, education, and communications components.

The National Coral Reef Monitoring Program has a particular disconnect with some jurisdictional managers, in part because of the lack of data availability, timely reports, or processed and interpreted data that can meet management needs. Developing a more sophisticated yet user-friendly database, linked to a quick and straightforward reporting system, could result in greater understanding and use of the data for management decisions, particularly if the national and jurisdictional monitoring data can be aligned.

The most successful programs, in terms of conservation outcomes, included strong collaboration and partnerships. Such collaborations and partnerships should be expanded throughout the projects, with sufficient time and budget allocations. Closer collaboration with partners on all projects, and more effective reporting will increase buy-in and implementation of recommended actions by these partners, which is particularly important given that NOAA rarely has direct authority or jurisdiction to implement the recommended actions.

**Specific Priority Recommendations:**

1. The National Coral Reef Monitoring Program represents a substantial effort and expense to the CRCP. The program is not however currently being fully used to achieve conservation outcomes, in part because of the lack of data analysis and data availability. The national program should have stronger alignment with jurisdictional and other important monitoring programs, including database integration.

2. Develop a business planning process and plan for CRCP to balance existing and emerging investment priorities that optimize reef conservation outcomes, provide opportunities for CRCP team members to participate in program design, and facilitate program evaluation and improvement.

3. Create a regular collaborative communication process to promote two-way discussions and exchanges between scientists and managers in each location, potentially involving annual forums and webinars, along with regular, rapid reporting of monitoring and research findings.

4. Develop a reporting template that includes outputs and outcomes (or benchmarks along the way), and whether or not data have been analyzed, shared with partners and uploaded to CORIS (or another portal). Data accountability should be required within each PI’s and each program’s granting process, and within Performance Evaluation Plans.
5. Ensure, through the grant approval or budgeting process, that all research and monitoring programs upload data to a dedicated, easily accessible platform, and produce brief summarized results and recommendations targeted to managers in a timely manner (~ a year).

6. For the long term, and particularly for the more remote reef areas, NOAA should begin exploring alternative reef monitoring technologies that might supplement and potentially replace ship-based studies, thereby improving efficiency and reducing cost.

7. Leveraging funds from and partnerships with other government departments, international agencies, and private funds is critical to maintaining or increasing core program support. The CR Task Force meetings could serve as the basis for more collaborative interactions between jurisdictions, NOAA PIs and other key partners (potentially combined with the annual CRTF meeting in DC for example).

8. Use existing staff, and NOAA line offices, to improve communications among NOAA PIs, jurisdictions and stakeholders. Panel members were surprised to learn that there are liaison officers in each of the jurisdictions who could be enhancing such communications. The liaisons’ job descriptions and skills should be reviewed to ensure they have the needed capabilities and mandates to serve this communication and collaboration purpose.

9. The Social Science component seems under-budgeted and undervalued. One way of ensuring that local communities take a more active role in sustaining the natural resources on which they depend is to provide them with meaningful data that reflect their social, economic, and cultural values. There is no better way to obtain these data than through socio-economic studies, which should be increased, possibly by better capitalizing on NOAA social science expertise outside of CRCP, and linked to the database housing ecological data.