MONITOR Technical Committee Action Plan (2012-2015)

Mission

1. Identify principal monitoring needs of the PICES region, and develop approaches to meet these needs, including training and capacity building;
2. Serve as a forum for coordination and development of inter-regional and international components of the North Pacific Ocean Observing Systems, including the GLOBAL Ocean Observing System, GOOS. Facilitate method development and inter-comparison workshops to promote calibration, standardization and harmonization of data sets;
3. Recommend interim meetings to address monitoring needs and PICES–GOOS activities;
4. Foster partnerships with other organizations (ICES, GACS, SAON, etc.) and programs that share a common interest;
5. Contribute to the development of the NPESR, advising editors and lead authors on monitoring issues, identifying the need for particular time series and their continuities, the period on which they need to be updated for the FUTURE forecast products, and recommend to Science Board that they endorse the need to establish or maintain particular time series;
6. Provide annual reports to Science Board and the Secretariat on monitoring activities in relation to PICES;
7. Interact with TCODE on management issues of monitoring data.

Strategy of the MONITOR Technical Committee

To implement its mission, the MONITOR Committee will address each of the five central themes of the PICES Strategy: (A) Advancing scientific knowledge; (B) Applying scientific knowledge; (C) Fostering partnerships; (D) Developing capacity; and (E) Ensuring a progressive organization. Specific goals, actions and tasks within each of these themes are as follows.

Theme A *Advance scientific knowledge*

Goal 1. Understand the functioning, resilience, and vulnerability of marine ecosystems.

Action 1.1 Promote the use of Global (GOOS) and regional (IOOS) Ocean Observing Systems as tools to understand the functioning of marine ecosystems.

Task 1.1.1 Briefly identify and describe the major observing systems (present and proposed) in the PICES region.

Task 1.1.2 Provide a forum at annual PICES meetings for exchange of information on ocean observing systems among PICES member countries.

Action 1.2 Promote the use of the PICES North Pacific Ecosystem Status Report to understand the functioning of marine ecosystems.

Task 1.2.1 Conduct sessions and workshops at the PICES annual meetings.
Task 1.2.2 Contribute to the production of the next reports.
Task 1.2.3 Evaluate the report and contribute to improving the process used to create it through participation in AP-SOFE.

Goal 2. Understand and quantify how marine ecosystems respond to human activities and natural forcing.

Action 2.1 Linked to FUTURE activities, understand and quantify the impacts of human activities and climate on marine ecosystems.

Task 2.1.1 Linked to S-HD activities, solicit advice from member countries, scientists, and stakeholders for what type of information is needed for the report to be useful to understand and quantify impacts
Task 2.1.2 Expand and improve the report synthesis to better explain how the ecosystem functions and the relevant evidence for impacts of human activity and climate.

Action 2.2 Promote the use of Ocean Observing Systems as one of the key elements necessary to understand and quantify the impacts of climate and human activities and marine ecosystems.

Task 2.2.1 Facilitate and integrate present PICES monitoring activities.
Task 2.2.2 Develop a strategy for promoting and funding PICES observing activities, and actively communicating their relevance and utility:
i) North Pacific Continuous Plankton Recorder transects.
ii) North Pacific seabird and marine mammal transects.

Theme B *Applying scientific knowledge*

Goal 3. Provide scientific advice pertinent to North Pacific ecosystems.

Action 3.1 Use PICES North Pacific Ecosystem Status Report as a forum for providing information on current status of ocean observing to guide scientific activities.

Task 3.1.1 Provide a recommendation on emerging information needs and critical issues in methodology to not only scientists but industry, government and communities.

Action 3.2 Use MONITOR's resources and involvement in global and regional Ocean Observation Systems to provide advice on methods and guide scientific activities.

Task 3.2.1 Propose sessions or workshops for the PICES annual meeting to address emerging issues in ocean observation science.

Goal 4. Ensure that PICES products are relevant, timely, and broadly accessible.

Action 4.1

Task 4.1.1

Theme C. *Foster partnerships*

Goal 5. Collaborate with organizations and scientific programs relevant to PICES.

Action 5.1 Promote the process of creating NPESR as a way to gain collaboration among organizations, scientific programs, and stakeholders.

Task 5.1.1 Linked to AP-SOFE and S-HD, **e**stablish and maintain dialogue with organizations, programs, and stakeholders on potential ways to increase the value of the report to users of scientists, industry, government, and communities. Establish a liaison from the committee with each group.

Task 5.1.2 Actively seek input from intergovernmental regulatory organizations on the content, format, and value of the report.

Action 5.2 Promote collaboration and communication among Ocean Observing Systems internal and external to the PICES region.

Task 5.2.1 Define PICES' role, assist and participate in the implementation of international programs (e.g. GOOS).

Goal 6. Strengthen communication and engagement with users of PICES scientific products.

Action 6.1 Publish reports and workshop proceedings on a timely basis.

Action 6.2 Review the current MONITOR web page and identify new web-based products to support committee's communication with members and stakeholders.

Theme D. *Develop capacity*

Goal 7. Advance methods and tools to improve and enhance scientific activities.

Action 7.1 Promote the use of the PICES North Pacific Ecosystem Status Report as a data resource on the current status and trends in the North Pacific Ocean and that resource managers and policy decision makers should use it to evaluate the potential impact of their decisions.

Task 7.1.1 Identify important users groups (from each member country) and determine the type of report that best meets their needs.

Task 7.1.2 Determine a frequency for publication of the report the will best serve the needs of the different users groups.

Task 7.1.3 Determine the most effective ways to distribute the report to each user group (from each member country).

Action 7.2 Promote the use of Ocean Observing Systems within the PICES region as a data resource on the current status and trends in the North Pacific Ocean that resource managers and policy decision makers can use to evaluate the potential impact of their decisions.

Task 7.2.1 Decide on a role for PICES to help disseminate observing system knowledge for use in scientific advice (e.g. system of bulletins, alerts, NPESR).

Task 7.2.2 Provide advice on integration of NEAR-GOOS and North American regional observing systems to provide scientific advice on pan Pacific ecosystem status and trends.

Goal 8. Foster collaboration among scientists within PICES.

Action 8.1 Use the North Pacific Ecosystem Status Report as a tool or means to promote collaboration and communication among PICES scientists.

Task 8.1.1 Conduct collaborative workshops for the authors, whenever possible, as part of the process that creates the report.

Task 8.1.2 Recruit scientists from under-represented groups to participate in the writing of the report.

Action 8.2 Use PICES involvement in Ocean Observing Systems as a means for promoting collaboration among scientists.

Task 8.2.1 Conduct collaborative workshops as part of the process to create a pan Pacific Ocean observing system.

Task 8.2.2 Recruit scientists from under-represented groups to participate in the process.

Goal 9. Create education and training opportunities.

Action 9.1 Use the North Pacific Ecosystem Status Report as a tool or means for education and training.

Task 9.1.1 Conduct collaborative workshops or summer school to meet the interests and needs of its members in scientific methods and skills necessary to create and maintain a pan Pacific Ocean observing system.

Theme E. *Ensure a progressive organization*

Goal 10. Provide an effective infrastructure to support PICES activities.

The activities in support of the primary mission of PICES require effective support and implementation, as well as broad participation from the scientific communities of the Contracting Parties. An efficient organizational structure and good internal communication ensure a vibrant science enterprise. An effective Secretariat that supports the mission and goals of the Organization is essential to its success.

Action 10.1 Create and oversee expert groups to support FUTURE and other scientific activities.

Task 10.1.1 Make recommendations to the Science Board on the establishment of new expert groups to support FUTURE and other scientific activities.

Task 10.1.2 Delegate representatives as members of the FUTURE Advisory Panels to effectively communicate with the FUTURE Advisory Panels.

Task 10.1.3 Oversee and coordinate the activities of the daughter expert groups through communication with the FUTURE Advisory Panels.

Appendix
A list of acronyms

FUTURE:	**F**orecasting and **U**nderstanding **T**rends, **U**ncertainty and **R**esponses of North Pacific Marine **E**cosystems
GOOS:	Global Ocean Observing System
GACS:	Global Alliance of Continuous Plankton Recorder Surveys
ICES:	International Council for the Exploration of the Sea
NEAR-GOOS:	North Eastern Asian-Global Ocean Observing System
NPESR:	North Pacific Ecosystem Status Report
SAON:	Sustaining Arctic Observing Networks
S-HD:	Section on Human Dimensions of Marine Systems
AP-SOFE:	FUTURE Advisory Panel on Status, Outlooks, Forecasts, and Engagement
TCODE:	Technical Committee on Data Exchange