SB 1070 Comprehensive Monitoring Program: Draft Outline

Requirements from the text of SB 1070:

Recommend improvements to monitoring	(4) The monitoring council shall review existing water quality monitoring, assessment, and reporting efforts, and shall recommend specific actions and funding needs necessary to coordinate and enhance those efforts. (5) (A) The recommendations shall be prepared for the ultimate development of a cost-effective, coordinated, integrated, and comprehensive statewide network for collecting and disseminating water quality information and ongoing assessments of the health of the state's waters and the effectiveness of programs to protect and improve the quality of those waters. (B) For purposes of developing recommendations pursuant to this section, the monitoring council shall initially focus on the water quality monitoring efforts of state agencies, including, but not limited to, the state board, the regional boards, the department, the Department of Fish and Game, the California Coastal Commission, the State Lands Commission, the Department of Parks and Recreation, the Department of Forestry and Fire Protection, the Department of Pesticide Regulation, and the State Department of Health Services. (C) In developing the recommendations, the monitoring council shall seek to build upon existing programs rather than create new programs. (6) … the monitoring council shall formulate recommendations to accomplish both of the following: (A) Reduce redundancies, inefficiencies, and inadequacies in existing water quality monitoring and data management programs in order to improve the effective delivery of sound, comprehensive water quality information to the public and decision makers. (B) Ensure that water quality improvement projects financed by the state provide specific information necessary to track project effectiveness with regard to achieving clean water and healthy ecosystems.
Develop a comprehensive monitoring program strategy	(1) Utilize and expand upon the State's existing statewide, regional, and other monitoring capabilities and describe how the State will develop an integrated monitoring program that will serve all of the State's water quality monitoring needs and address all of the State's waters over time. (2) The strategy shall include a timeline not to exceed 10 years to complete implementation. (3) The strategy shall identify specific technical, integration, and resource needs, and shall recommend solutions for those needs.
Develop an agreement on Indicators.	Agreement, including agreement on a schedule, with regard to the comprehensive monitoring of statewide water quality protection indicators that provide a basic minimum understanding of the health of the state's waters. Indicators already developed pursuant to environmental protection indicators for statewide initiatives shall be given high priority as core indicators for purpose of the statewide network
Develop a Quality Assurance Management Plan	Quality management plans and quality assurance plans that ensure the validity and utility of the data collected.

Develop a method for compiling, analyzing, and integrating readily available information.	This is to include data from waste discharge reports; volunteer monitoring groups; local, state, and federal agencies; and state and federal grant recipients of water quality improvement projects.
Develop an accessible and user-friendly electronic Data Management System.	To the maximum extent possible, include the geospatial information on the data sites.
Develop a method for producing timely and complete water quality reports and lists.	The reports and lists required are those required under Sections 303(d), 305(b), 314, and 319 of the Clean Water Act, and Section 406 of the BEACH Act.
Develop an update of the SWAMP needs assessment.	The SWAMP program needs will change in light of the benefits of the increased coordination and integration of information from other agencies and information sources.

Chapter 1: Introduction

- Requirement for this report in the legislation
- Purpose of report – to lay out a ten-year plan to achieve ambitious goals related to design and implementation of water quality monitoring programs, use of monitoring data in assessments and decision making, and development of tools and supporting infrastructure to enable wide access to data and information products
- Solution Council proposed in December 2008 report has proved to be good / bad / indifferent and has provided the basis for significant progress to date and for development of the comprehensive ten-year strategy

Chapter 2: Review of 2008 Recommendations

- Fundamental vision of broader data access through theme-based web portals.
- Five-part solution:
  o An organizational structure built on decentralized, issue-specific workgroups that operate within common policies and guidelines defined by the Monitoring Council
  o A set of performance measures which each theme-based workgroup will use to evaluate, coordinate and enhance monitoring, assessment, and reporting efforts
  o A single, global point of entry to water quality data, and a design template for the complete set of theme-based web portals
  o Standardization of monitoring and assessment methods that achieves an appropriate balance between statewide consistency and regional flexibility
  o Database and data management standards necessary for more efficient data access and integration

Chapter 3: Progress to Date

- Review progress for each of the five parts of the recommended solution
- **Organizational structure:**
  o Have set up four (or more) workgroups operating under overall guidance of the Monitoring Council
  o Summarize progress of each workgroup

- o Describe policies and guidelines defined by the Council for establishing and managing workgroups
- o Discuss the applicability of policies and guidelines to different sets of circumstances represented by each workgroup
- o Identify needed revisions for future
- **Performance measures:**
  - o Describe progress in developing systematic approach(es) to dealing with the six categories of performance measures (condensed from the 10 USEPA elements of monitoring program design)
  - o Expand six performance measures with sub-categories to illustrate the 10 USEPA elements
  - o Describe how performance measures will be addressed by each workgroup and the overall strategy for ensuring coordination across themes
  - o Specifically address Act's requirements re indicators, QA/QC, analysis and integration, data management, and reporting
- **Single point of entry:**
  - o Council's website as the central access point
  - o Describe development and implementation of format guidelines for issue area workgroups
  - o Describe how organizing diverse information resources into one website is helping identify opportunities for improved standardization, coordination, integration, streamlining
  - o Describe how Council website promotes and depends on progress in database and data management (see below)
- **Standardization:**
  - o Describe progress at standardization within each of the issue area workgroups. Discuss balance between statewide standards and local/regional flexibility. Discuss additional level of standardization needed for cross-cutting issues and uses of data.
- **Database and data management:**
  - o Describe success in establishing data management standards for each issue area
  - o Describe how recommended hierarchy of standards (e.g., international, federal, state, issue area) has been applied
  - o Describe integration into Council's website, as well as development of statewide information management infrastructure (e.g., data centers, CEDEN) to provide access to data

Chapter 3: Needs, Opportunities, and Challenges

- There has been lots of progress, but much remains to be done
  - o An expanded effort on each of the five elements of the overall solution
  - o Further definition and application of the six sets of performance measures
  - o Outreach to parties involved in additional themes and subthemes
  - o Institutionalization of procedures and relationships
  - o Putting the effort on a more robust financial and institutional footing
- Need for consistent, long-term effort to sustain progress
  - o Won't happen entirely on its own, although momentum and buy-in are increasing
    - ▪ E.g., increasing interest across state in regional monitoring programs that attempt to accomplish, on a smaller scale, some of what Council intends at the statewide scale
    - ▪ Increased interest within management agencies in larger-scale standardization and coordination within individual themes
  - o Requires attention to governance and funding
- Council must expand its relationships with other entities that use monitoring data and information
  - o Will leverage Council's resources and influence
  - o Will streamline process of establishing new workgroups and implementing their recommendations

- o Will provide greater insight into users' needs
- Important opportunities exist that the Council can take advantage of
- Important challenges must be met for the Council's efforts to be successful

Chapter 4: Comprehensive Strategy

- Will apply to the longer term what has been learned this year by working through the four (or more?) initial applications
- Council will adopt an approach that combines careful planning and prioritizing with the flexibility required to take advantage of opportunities as they present themselves
- Comprehensive strategy includes steps related both to the overall management of the effort as well as the development of theme-by-theme monitoring programs and web portals (Figure 1)
- Describe steps in the following figure
  - o Describe role of SWAMP
  - o Demonstrate how meets the requirements of the Act
- Schedule and budget
  - o Tables in December 1, 2008 report provide starting point for prioritization
  - o These tables can be revised to provide a more systematic ranking system that includes expanded information on the scale / scope of effort required
  - o Level of effort required can be estimated based on past experience and categorized in terms of, for example, small, medium, large, very large levels of resources required
  - o Include estimate of the effort needed for the right side of Figure 1
- Define a structure that relates each theme-based monitoring and assessment effort to other themes and to the larger management environment
  - o See Figure 2
  - o Definition of these data and information flows also provides important direction to the development of data standards and the overall data management infrastructure

Theme by Theme

Overall Management

Identify candidate theme

Establish Council's identity

Evaluate readiness

Outreach to agencies, others

Build working relationships

Fit into set of priorities

Support adaptation of management approaches / goals

Apply 6 performance measures

Establish workgroup

Foster coordination across themes

Support adaptation of IT goals / infrastructure

Design and implementation

Identify, provide, enhance funding

Theme-based reporting to audiences

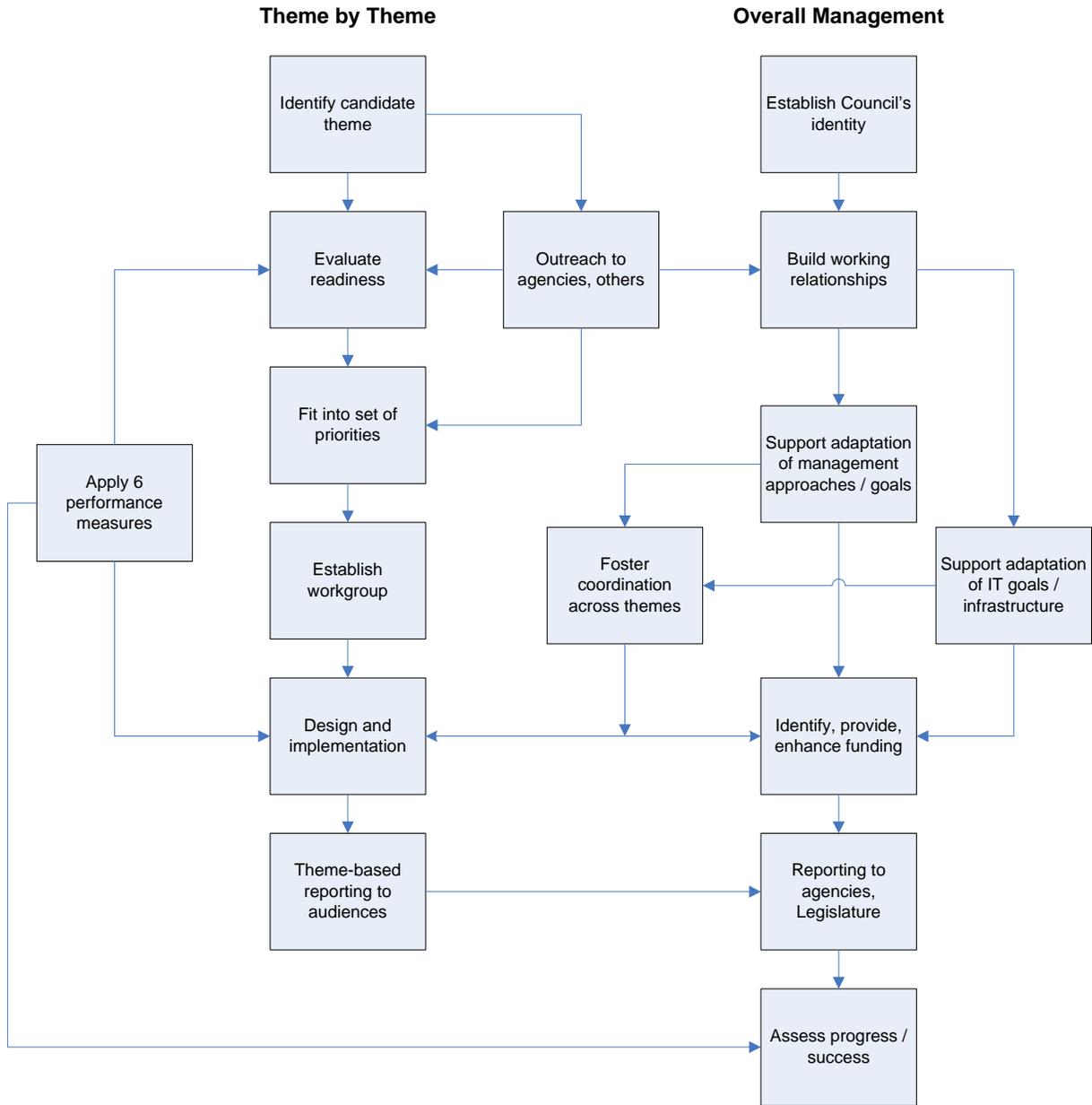Reporting to agencies, Legislature

Assess progress / success

Figure 1. Parallel tracks needed to implement theme-based monitoring and assessment within the context of web portals.
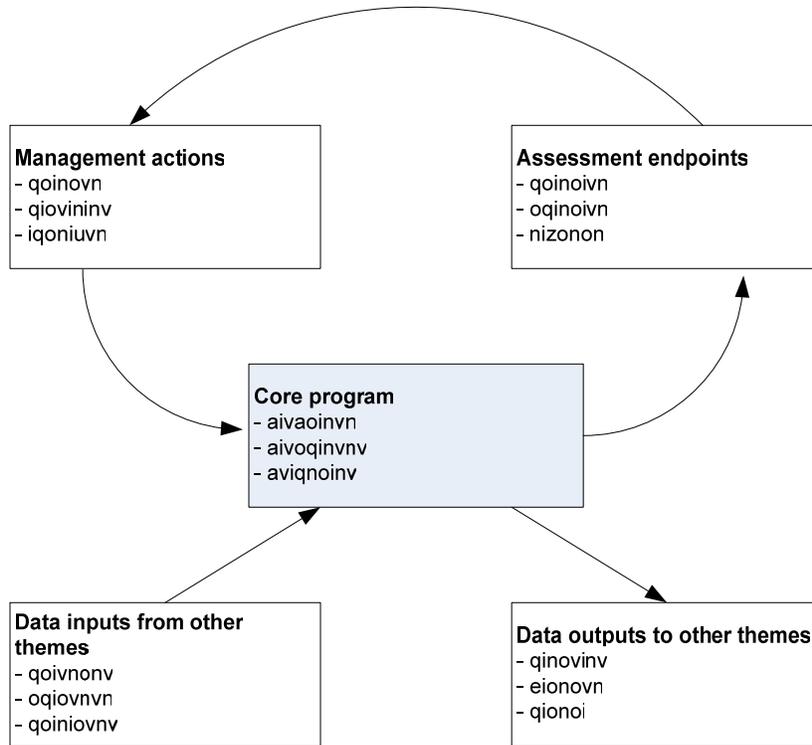
Figure 2. Schematic representation of data and information flow between the core elements of each theme-based monitoring and assessment program and other aspects of the Council's overall strategy.

Chapter 5: Recommendations

To be developed.