

## **Recommendations to the Council from the 70<sup>th</sup> Meeting of the Scientific and Statistical Committee**

11-13 November 1998  
Council Office Conference Room  
1164 Bishop Street  
Honolulu, Hawaii  
Draft Report  
**Bottomfish**

### Status of onaga, ehu and hapuupuu

Alvin Katekaru presented a status report on the Council's request for NMFS to delist MHI onaga and ehu as overfished. The NMFS-SWFSC is currently conducting a scientific review of all preliminary data available to assess whether an archipelago-wide, one-stock definition would be appropriate for each of these species. If so, these stocks would not be overfished, biologically, as these bottomfish are less heavily exploited in the NWHI. **The SSC expects the NMFS-SWR to concur with Council's request for delisting.**

### HIMB/NMFS Research Activities

Malia Chow (HIMB) presented an update of the genetic fingerprinting research on onaga and ehu to determine whether there is any stock distinction between the MHI and NWHI. Work progresses on numerous loci for ehu and onaga. If markers chosen prove to be as useful as expected, a final report should be available for the Council by March 1999. Results of this research should demonstrate that an archipelago-wide stock definition is applicable for ehu and onaga. The stressed status of MHI hapuupuu remains to be addressed. Although the focus of the HIMB work so far has been on onaga and ehu, some hapuupuu samples were collected and are being analyzed. More hapuupuu samples are needed from all areas. **The SSC notes that while this study may indicate that the overall archipelago-wide stocks of ehu and onaga may be considered as not overfished, the Council should still remain aware of the locally depleted condition of ehu and onaga in the MHI, and encourage HDAR's rebuilding efforts through its area closure plan.**

Chris Kelley provided an updated of HIMB's field and hatchery research program for ehu and onaga. Potential brood stock have been collected for holding and grow-out. Holding/ transfer facilities and techniques have been and continue to be refined and holding results seem encouraging. Opakapaka are also being evaluated for rearing in captivity. A Pop-eye continues to be a problem and is an item of research. Bob Nishimoto questioned whether hatchery-reared and released fish might be perceived by the public to be the fix for the continuing problem of heavy local depletion.

Kelley also presented sea-floor habitat mapping imagery for bottomfish in the Penguin Banks, comparing closed zones with surrounding areas. He pointed out that 8 of the 19 state sites closed to fishing have been surveyed to date, with the intention to complete the remaining areas in the near future, pending funding. Surveys continue throughout the MHI of potential nursery sites and of all known fishing sites. **Detailed bathymetric characterization indicates that much of the closed area is poor bottomfish habitat (e.g., sand) while areas of preferred habitat lie just outside some of the closure boundaries. The SSC suggests that the state may wish to consider these new**

**findings as support for redefinition of closure boundaries so as to promote the most effective recovery of depleted MHI bottomfish.**

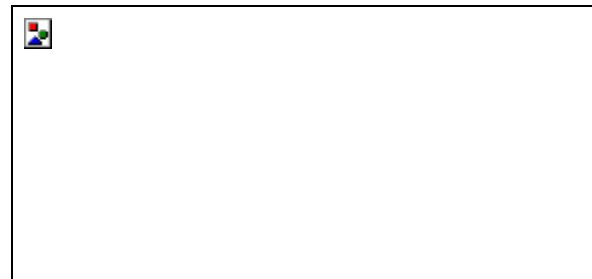
Bob Moffit presented NMFS Honolulu Lab's most recent information from their research transect dives on Penguin Banks to identify and characterize ehu and onaga juvenile habitats and relative abundance. Approximately 200 hours of video tapes will be analyzed to obtain qualitative data for further interpretation. In all, 18 dives have been completed. The data will be used to assess the applicability of the state's 20% area closure management option for restoring ehu and onaga in the MHI.

State MHI Management

Walter Ikehara presented a brief summary of the state's progress on registering bottomfish vessels in the MHI. He indicated considerable interest in the new regulations and continues to distribute information and education materials on the state's bottomfish management plan (HAR Chp. 13-94). DOCARE has begun to enforce new regulations and has started citing transgressors. The education Agrace period<sup>®</sup> is winding down.

MHI Management Options MHI

Robert Schroeder presented an update of issues regarding how the Council could assist the state to effectively manage bottomfish in the EEZ off the MHI. Six options were presented for possible federal action: 1) Status quo [no action]; 2) Council resolution (federal/state consistency); 3) Regulatory fix (regulatory amendment to establish same closed areas in EEZ only); 4) Withdrawal of federal management in the MHI; 5) Delegation of management authority to the state; and 6) Other options. Pro and cons of the above options were also presented and discussed. **The SSC calls attention to the fact that research results continue to support the existence of archipelago-wide stocks for ehu and onaga, but results are not yet complete. These results are expected to be presented in complete form in March 1999. However, ehu and onaga remain heavily depleted in the MHI. There is however, a state management plan in place, and therefore, the SSC recommends that the Council pursue either option 1) Status Quo, or option 2) Council Resolution, until such time when genetic information is complete and the effectiveness of the state's plan can be better determined.**



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**Crustaceans**

#### Update on 1998 commercial fishing season

Sam Pooley presented an update of the 1998 commercial fishing season. Five vessels have fished so far and further landing reports are expected. Necker, Gardner and Maro have met their 1998 harvest guidelines and are closed to further fishing during the season. Catches from Aall other areas® are currently at approximately 35% of the 1998 harvest guideline for this area.

#### Results from the 1998 research cruise

Gerard DiNardo presented a summary of the June-July research cruise at Necker and Maro, noting that research CPUE changes at Necker suggest a gradual replacement of spiny lobsters by slipper lobsters. **The SSC noted in discussion that sampling at Aother banks® may be necessary in the future as fishing is increasingly dispersed.**

#### Status of NMFS tagging project

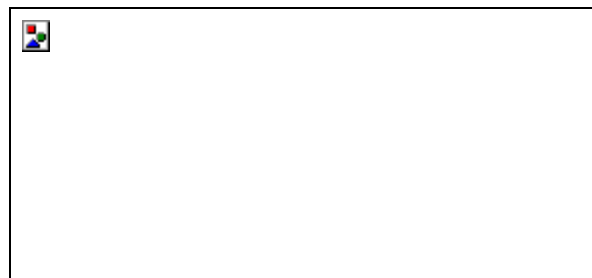
Wayne Haight presented the results of the 1998 tagging cruise at Necker Island. A total of 2,954 spiny lobster were tagged and released. A high reporting rate of recaptured tagged lobster is critical for meeting the precision targets for stock size estimates. **The SSC therefore recommends that NMFS provided complete observer coverage of the 1999 fishery in order to enhance the recovery of tags.**

#### Status of draft regulatory measure for bank-specific harvest guidelines

Robert Schroeder presented the alternative harvest guideline policies previously discussed by the SSC, as well as two additional alternatives: 1) Partial bank-specific harvest guidelines; 2) General area-specific harvest guidelines; 3) No action [status quo]; 4) Full bank-specific harvest guidelines; and 5) Necker- Maro- Gardner- bank-specific harvest guideline. It was noted that Aalternative 5" is a variation of Aalternative 1". For the 1998 season, the application of the partial bank-specific approach (alt. 1), using current parameters that produced reliable population estimates, resulted in bank-specific quotas only for Necker, Maro and Gardner, which, together with Aall other areas®, were established by rule for that year alone.

**Following some discussion, the SSC recommended that its previous choice, i.e. the partial bank-specific harvest guideline, continue to be adopted. The SSC noted that NMFS would exercise its scientific judgement regarding which banks should be individually specified for bank-specific harvest guidelines. The SSC also requested that Council Staff coordinate with NMFS regarding arrangements for the five-year review (required under Amendment 9), and to report to the SSC on this at an appropriate time.**

**The SSC did not consider it necessary to examine confidential fishery data on individual banks within Aall other areas® at this time, but foresaw that access to**



**such data would probably be necessary at its next meeting.**

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## Ecosystem and Habitat

### Status of EIS for Farallon de Mendinilla

Robert Schroeder reported that the draft EIS for Farallon de Mendinilla, CNMI, had been released and that the comment period had ended. He noted that the Council had responded by sending a letter that did not object to the preferred alternative, but did note environmental and safety concerns and did recommend periodic quantitative impact surveys.

### Other issues/activities

Schroeder updated the SSC on recent ecosystem and habitat activities, including the scheduling of the next HIHWNMS Sanctuary Advisory Council (SAC) meeting and the planned National Geographic sponsored underwater survey work by Sylvia Earle. He also updated the SSC on the MACZMAG meeting, and their discussion of major issues identified in the state's Ocean Resources Management plan. Mark Minton described how the Council had addressed the Essential Fish Habitat requirements through the comprehensive SFA amendment, submitted to NMFS in September, and timeline for passage of the amendment.

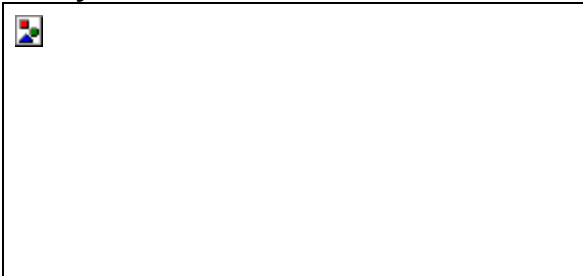
### Coral reef ecosystems

Jeff Walters of the CRE Plan Team presented an annotated outline of the draft Coral Reef Ecosystem FMP making the general points that 88% of the reefs in the U.S. Western Pacific were in the EEZ and that those that were away from population centers were in relatively good shape although there were concerns about new threats from potential increased exploitation. Walters noted that the FMP would use a framework approach, but that it would not be a conventional FMP since important decisions would have to be made about how to deal with species, species complexes, live rock, and EFH under an ecosystem approach. Robert Schroeder noted that much of the needed baseline work has been completed under previous studies, including Alison Green's overview assessment report.

The SSC discussed the plan team's recommendations on the development of the Coral Reef Ecosystem FMP. **The SSC generally concurs with the overall goals of the FMP but notes that terms like *Aeconomic productivity*, *Aecological integrity* and *Asocial acceptability* should be carefully defined and described.** The SSC reviewed the seven objectives of the FMP which are: 1) Sustain production of multi-species resources; 2) Create flexibility in the management process for utilized and under-utilized resources; 3) Address information needs by conducting assessments, monitoring and research; 4) Protect, enhance and restore habitat; 5) Promote sustainable use of under-utilized resources in an ecologically and culturally sensitive manner; 6) Improve the awareness and understanding of coral reef ecosystems and their fishery potential, issues and impacts in the EEZ; and 7) Collaborate with other agencies and organizations concerned with coral reefs. **The SSC generally concurs**

with the intent of the objectives and made a number suggestions (e.g., under objective 1 change *Asustain* to *Afosters sustainable*; under objective 4 delete *Aenhance* or describe how this will be accomplished; under objective 5 change *Apromote* to *Afostere*; list objective 5 as a subset of objective 1; give *Aconservation* a stronger focus; the objectives should not be assumed to be in order of priority).

Following discussion, the SSC agreed with the definition of Coral Reef Ecosystem to mean those species, habitats and resources associated with benthic substrata from 0-100 meters, and that coral reef resources are *Athe currently or potentially exploitable resources in coral reef ecosystems*. The SSC discussed the proposed structure of the FMP in the initial annotated outline and looks forward to the next iteration of the plan outline. The SSC noted and discussed the issue of potential overlap of coverage of some species among the FMP for coral reef resources and certain bottomfish and crustacean species. **The SSC suggests that close coordination between the appropriate plan teams would encourage development of complementary approaches for MUS between the coral reef ecosystems and other FMPs.**



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**Pelagics**

### 2nd/3rd quarter 1998 longline fishery report Hawaii & American Samoa

Russell Ito presented data on the performance of the Hawaii longline fleet during the 3<sup>rd</sup> Q of 1998. It was noted that future presentations might consider stratifying CPUE data by trip type and by locations, i.e. north or south of the Hawaiian archipelago, or in 5 deg squares. The best way to do this may be by using pie charts on maps. A combination of the programs Mapinfo and Foxpro had already proven to be useful for this type of data display.

John Hampton noted that CPUE trends in the Hawaiian longline fishery broadly resemble those in the regions as a whole.

Paul Dalzell presented similar information for the smaller longline fishery in American Samoa. Some trends in the longline data were discussed with respect to whether they represented local depletion or not. It was noted that the continuing high CPUE of albacore in American Samoa was encouraging. However, it was noted that the longline

fisheries in American Samoa and neighboring Samoa developed over a period of very high CPUEs, and declines in albacore CPUE could present problems for both fisheries, since albacore is the main target and revenue earner in these two fisheries.

#### Research & issues update SPC-OFP

John Hampton referred the SSC to the presentation made by Dr Tony Lewis (SPC Oceanic Fisheries Program Manager) on the previous day.

#### NMFS review of area closure framework measure for American Samoa

Alvin Katekaru reviewed progress on the framework measure to establish a closed area for large (>50ft) pelagic fishing vessels around the American Samoa islands. Katekaru noted that the size of the closed area had changed since the last SSC from 100 nmi, to 50 nmi around the main archipelago and 30 nmi around Swains. The document had been sent to NMFS on 2 November and was now being reviewed by NMFS.

#### Outline for a comprehensive data amendment

Mark Minton presented a discussion paper outlining potential means to improve data collection in all parts of the US Pacific EEZ, including the US Pacific Remote Island Territories. The proposed action is intended to plug loopholes in several FMPs. **The SSC recommends further development of a comprehensive framework measure for data reporting under Council FMPs.** The SSC generally discussed others issues surrounding data collection including the High Seas Compliance Act, which is slowly coming into force, and the collection of data from recreational fisheries. **The SSC suggested that formation of a recreational fisheries data collection task force be explored to investigate ways in which recreational fishermen could be motivated to provide catch information.**

#### Blue marlin management options

Paul Dalzell presented information on the current status of blue marlin stock assessment and indicated the need to update current information. Kitty Simonds explained that she had contacted the NMFS Honolulu Laboratory concerning blue marlin stock assessment. Having received no reply from NMFS, Ms Simonds had contacted the SPC's Oceanic Fisheries Program (OFP) to explore the possibilities of the OFP conducting a Pacific-wide blue marlin stock assessment. The SSC felt that the most productive means to update stock assessment on blue marlin is to work within the Billfish and By-catch Research Group of the SPC Oceanic Fisheries Program's Standing Committee on Tuna And Billfish. Dr. Laurs indicated that the Honolulu Laboratory could supply a stock assessment scientist to begin work with the BBRG in June 1999 and that the results would be available by June 2000. Subsequently, Ms Simonds informed the meeting that the IATTC had just informed her that they would be preparing a preliminary updated stock assessment of blue and other marlins in 1998. **The SSC looks forward to receiving an updated stock assessment of blue marlin within the next 12 months.**

#### Bigeye tagging workshop outputs

John Sibert presented a brief summary of the International Pacific Bigeye Research Planning Workshop held in Honolulu November 9-10. The purpose of the workshop was to outline a collaborative research program to address questions relating to the population dynamics of bigeye tuna on the scale of the Pacific Ocean. Some specific issues to be addressed include estimation of age-specific rates of natural mortality and movement at both large and small scales. Scientists from Australia, Japan, French Polynesia, Hawaii, Secretariat of the Pacific Community and the Inter-American Tropical Tuna Commission participated. Results of the workshop will be included in a Aprospectus® document that will assist workshop participants to solicit support from funding agencies.

## Protected species interactions/FAO Expert Consultations

### 3<sup>rd</sup> quarter 1998 turtle takes and research/1998 bird takes

Pierre Kleiber addressed the observed and expanded turtle and albatross takes in the Hawaii longline fishery. Kleiber discussed at length the problems associated with developing a reliable expansion of the observer data for the albatrosses, and in particular for the Blackfooted albatross. The SSC was grateful for the thoroughness of Kleiber's in-depth explanation of the difficulties associated with developing these fleet-wide expansions with infrequent episodic data. There are still some additional problems requiring further work and additional data. There was some discussion about other possible variables that could explain albatross takes, such as the longline vessel itself or group of similar longline vessels.

### Bird mitigation project

Gail Kaaialli reported on the progress of the Council's field project for evaluating the most effective mitigation methods for use on Hawaii longline vessels. Two trips had been accomplished so far, with limited data collected on the first being balanced by a large volume of data generated by the second trip. Three more trips were scheduled, two on vessels principally targeting swordfish and one on a vessel principally targeting tuna.

A video was shown of various mitigation devices in action with a commentary by Brian McNamara, the project's field researcher. Although various devices such as towed buoys and tori-lines were successful deterrents, McNamara noted the need continually adjust or fine tune the mitigation equipment when deploying and retrieving the longline gear. There was some discussion concerning the use of underwater line shooters in the Hawaiian fishery, which would probably solve most of the seabird-fishery interaction problem. It was noted that finding the most suitable mitigation methods needed to be followed up with getting the fisherman involved in appreciating the seriousness of the problem, given that Council efforts so far had made little impression, on what was acknowledged to be a group of no more than 25-30 vessels.

### Blackfooted albatross population dynamics workshop

Workshop Coordinator Kathy Cousins reported on the outputs and recommendations of the meeting. Cousins was congratulated on assembling the data and participants for what was acknowledged to be a very successful workshop. **Cousins reported the recommendations from the workshop, but SSC refrained from comment on these until it had reviewed the meeting's final report prior to the next (71<sup>st</sup> SSC).**

### Reports of FAO Meeting for shark, birds and fishing capacity

Kitty Simonds reported on the recent FAO consultations in Rome in October. Consensus was reached at the meeting on national and international plans of action for sharks and seabirds, including schedules for plan development and reporting. Japan needed to reduce its longline fishing capacity and was looking at the meeting as a way to channel external political pressure to do this. Kitty Simonds emphasized the need for Council participation in these meetings to look out for the interests of the regions-fisheries.

### Status of the Sect. 7 consultations for turtles and albatross

Charles Karnella reviewed the recent biological opinion on turtle interactions with the Hawaii longline fishery. The biological opinion concluded that the continued operation of the Hawaii-based longline fishery for 1999-2001 is not likely to jeopardize the continued existence and recovery of loggerhead, leatherback, olive ridley, green or hawksbill turtles or adversely modify critical habitat.

New take and kill levels had been produced in the opinion document. Karnella noted the difficulties in getting the opinion finalized, stating that NMFS SW Region had acceded to a provision where a single dead or severely injured leatherback turtle would trigger a 90-day special internal review.

Karnella noted that the Short-tailed albatross had been listed under the US Endangered Species Act since 1973. However, as a result of an administrative error in the original listing, the United States was specifically excluded from the area in which the endangered status applies. Therefore, individuals that occur in the United States are not currently protected under the provisions of the Act. This was being addressed by USFWS, who are preparing a biological opinion of the threat to the species from fishery interactions. NMFS will also prepare an assessment which the USFWS opinion will have to address.

### Sharks

#### 1998 finning update

Mike Laurs noted that in the 3rd quarter of 1998 65% of all sharks taken by the Hawaii longline fishery were being retained and finned. The percentage by trip type in the fishery was broken down as follows: swordfish trips 82% finned, tuna trips 89% finned, and mixed trips 29% finned.

#### Research initiatives

Mike Laurs also produced a plan for shark research by the NMFS Honolulu Laboratory. Life history and tagging studies were already underway, a synopsis of blue shark biology was almost completed, and stock assessment and population modeling of North Pacific blue shark was going to be developed between the Honolulu Lab and the Far Seas Lab.

Charles Karnella reported on a recent initiative by the PIAO to determine the percentage of sharks finned alive in the Hawaii longline fishery. Of 819 sharks landed over a 5 month period, only 4 (0.5%) were finned alive. The rest were dispatched before finning by a mix of spinal severing, electric shock, spiking/pithing, gunshot, clubbing and beheading. **The SSC recommends that the NMFS Pacific Islands Area Office produce a quarterly report summarizing observer records of shark finning.**

Karnella also reported on the shark socio-economic study for the Western Pacific Region for which a contractor was recently selected. The study will commence in December and will examine the volume and value of finning in the Region, the impact of regulating finning on fishermen, and the potential for greater utilization of the shark carcass.

#### APEC meeting - Honolulu - October 1998

Kitty Simonds reported on the recent APEC Oceans meeting convened in Honolulu in October this year. The meeting recommended supporting the FAO initiatives on sharks, seabird-fishery interactions, and fishing capacity reduction.

#### Upcoming meetings



ISC - Honolulu - January 1999

Sam Pooley presented the schedule for the 2<sup>nd</sup> ISC meeting in January 1999, including the swordfish working group (15-16 Jan), statistical working group (18-19 Jan) and the general meeting (20-23 Jan).

MHLC4 - Honolulu - February 1999

Kitty Simonds and Paul Dalzell briefly discussed the arrangements and issues to be covered at the next (4<sup>th</sup>) MHLC to be convened in Honolulu in February 1999. These included the convention area, allocation issues, minimum terms and conditions for fishing, enforcement, institutional issues, and the decision making process. This will be a two week meeting due to the gravity of the issues to be discussed.



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**Precious Corals**

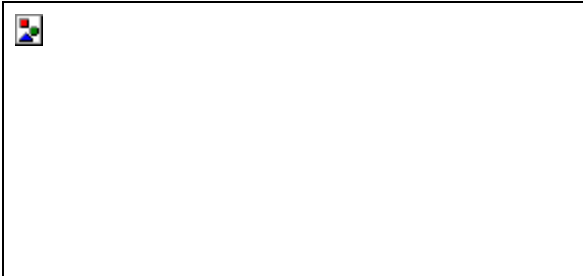
Richard Grigg reported on some characteristics of the current black coral fishery and on the results of his recent survey of the black coral bed in the Au-au Channel. The age frequency distributions of sample populations in 1975 and 1998 are very similar, which suggests that harvesting during the intervening years has had no significant effect on recruitment. Grigg noted that the good condition of the resource is partly attributable to the tree height minimum size limit of 48 in. that harvesters have voluntarily adhered to. Grigg argued in favor of a State mandatory minimum size restriction of 48 in..

Alternatively, a minimum stem diameter of 1 in. would be appropriate. A tree height of 48 in. or stem diameter of 1 in. corresponds to an age of 20 years, which is substantially older than the age at first reproduction. It was noted that the minimum stem diameter of 3/4 in. currently proposed by the DLNR is only slightly larger than the size/age at which corals reach sexual maturity. The SSC supports the previous recommendation of the Council that the DLNR be strongly encouraged to work with the Council's scientific committees in setting the minimum size.

Grigg and Frank Parrish reported on the status of precious coral beds in the NWHI and evidence for potential overlap between the foraging habitat of monk seals and coral beds in the vicinity of French Frigate Shoals. The Westpac bed contained many colonies of pink coral too small for harvest, no red coral, and gold coral was very rare.

Status as a refuge seems appropriate. On a previously unknown bed on the east ridge off FFS, pink coral colonies were very small and not abundant, red coral was absent, and gold coral (alive and dead) was abundant in scattered patches, with a size/age frequency that suggested low recruitment. On the Brooks Banks bed, red coral was very abundant, pink coral moderately abundant, and gold coral abundant in large colonies. Seal foraging studies indicated that some seals from FFS (possibly a substantial number) do a significant amount of concentrated foraging at Brooks Banks and the FFS east ridge at the depths and locations where precious corals occur. Qualitatively, fish abundance at the depths of the beds seems lower at these beds, which are nearer FFS, than at the more distant Westpac bed. Analysis of the seals' diet by others suggests that deep-water bottomfish and eels may provide a significant component. Precious corals, especially gold corals, provide enough vertical relief and structure that they may constitute an important element of the fish habitat/cover in these beds and consequently provide important foraging area for FFS seals. If precious corals, especially gold coral, were harvested this habitat might be lost or significantly diminished for 50-100 years. The SSC believes that these potential effects require further investigation before the harvest of precious coral, particularly gold coral, is allowed at the Brooks Banks or FFS east ridge beds.

The SSC concurred with the Plan Team recommendations that 1) the quota for pink coral on the Brooks Banks bed be re-examined to determine if an increase is warranted; 2) the quotas for gold coral on Established and Conditional beds be re-examined and decreased or eliminated, if necessary; 3) only selective gear be allowed for commercially harvesting precious coral in the EEZ around the NWHI; and 4) various management options be developed to protect coral in the previously undescribed bed near French Frigate Shoals, including the option of designating the bed a refuge for gold coral.



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### **Program Planning**

#### Review of Council Program Plan

Mark Mitsuyasu reported on the Council Program Plan and the staff's efforts to revise and improve the document. He explained that staff will update the descriptive introduction section, but will change the format of the Amilestones® section to make it

more user-friendly and tie it back to the Council's mission and objectives. SSC members commented that a major revision is needed and that they think the proposed format change will help to improve the document's usefulness. Mark closed by stating that the plan will be reviewed by the Plan Teams and Advisory Panels early next year and a fully revised version, including needed research projects, will be brought back to the SSC at its next meeting.

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