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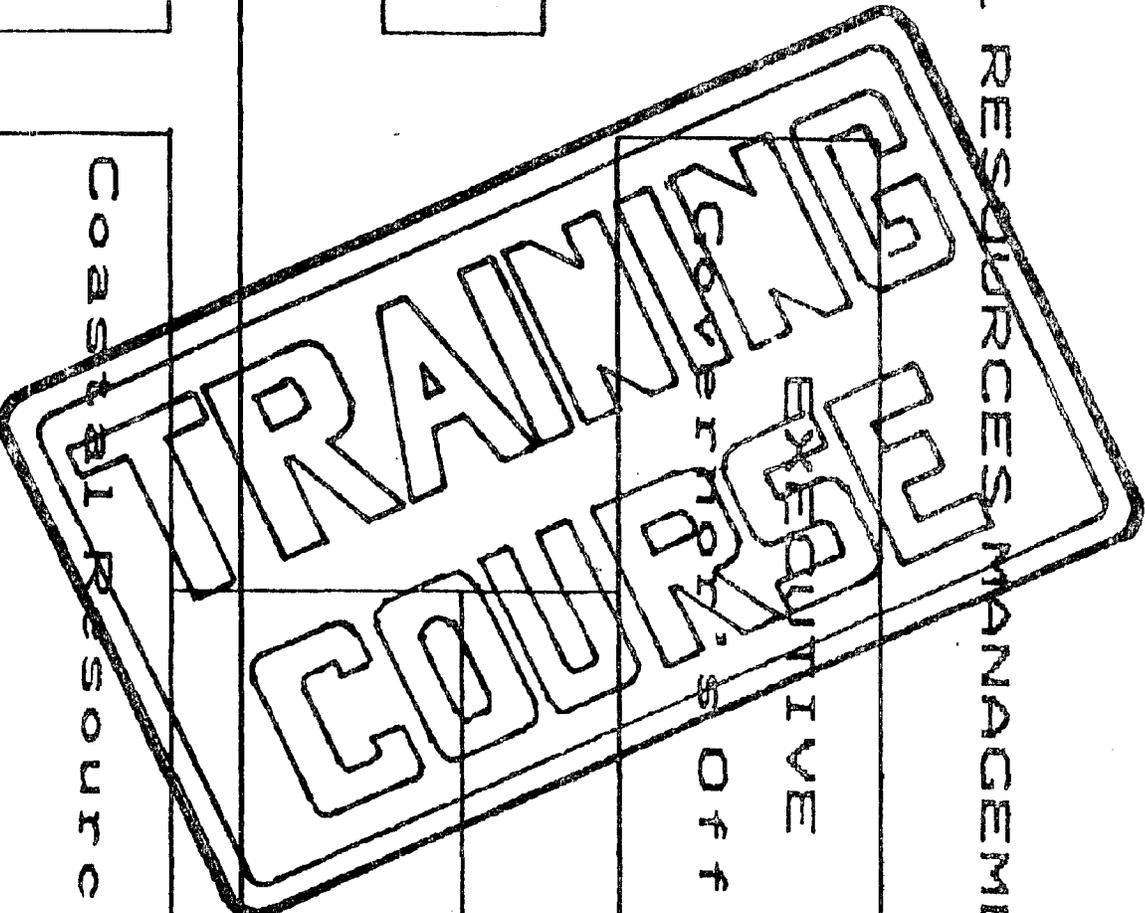
PROJECT EVALUATION

SAIPAN, MAY 1985

SPREP/IUCN

PERMITTING PROCEDURES

COASTAL RESOURCES MANAGEMENT PROGRAM



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PROJECT EVALUATION FOR THE DEVELOPMENT OF
COASTAL RESOURCES
IN THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

AN IN-COUNTRY TRAINING COURSE

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THE SOUTH PACIFIC COMMISSION'S
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OF NATURE AND NATURAL RESOURCES

13 TO 30 MAY 1985

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FINAL REPORT BY

COASTAL ZONE

Richard H. Chesher, Ph.D.

SAIPAN
COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

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ABSTRACT

A three week seminar and training course on project evaluation for the development of coastal resources in the Commonwealth of the Northern Mariana Islands was held in Saipan during May of 1985. The project was done under the auspices of the Commonwealth's Coastal Resources Management Office and was presented by the South Pacific Commission's South Pacific Regional Environment Programme and the International Union For the Conservation of Nature and Natural Resources.

The course was designed to improve understanding of how the environmental impacts of projects are evaluated and to assist the government in developing strategies for enhancing project benefits and minimizing environmental damage.

More than fifty six people participated in the activity, including Governor Pedro P. Tenorio, Attorney General Rex Kosack, directors and professional staff from all the government agencies involved with the permit process of the Coastal Resource Management Program, representatives from the Public, Business, Industrial and Educational sectors of the community as well as representatives from Federal Agencies.

The first week of the project was a seminar at which participants discussed how the CRMP processes permits and evaluates projects. Areas were identified where the program could be improved and suggestions for implementing these improvements made.

A two week intensive training course then used the material from the seminar to construct procedural flow charts and to design and fine-tune methods of project evaluation and permitting for the Coastal Resources Management Program.

Two projects of current interest to the CNMI were selected as subjects for evaluation by the training course participants. These were a proposal for a major hotel, representing a development project from off-island, and selection of a suitable site for a Saipan Sanitary Landfill and Closure of the Existing Dump, representing a governmental development project.

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1. OBJECTIVES OF THIS REPORT

1.1 GUIDE FOR FUTURE COURSES AND WORKSHOPS

This report is written to assist in the preparation and conduct of in-country training courses for resource management in the Pacific Islands. Section 2, BACKGROUND INFORMATION, explains the techniques used for the first SPREP/IUCN in-country resource management training course which was held in Saipan, Commonwealth of the Northern Marianas Islands (CNMI), during the month of May, 1985. Section 5 evaluates these procedures.

The Course structure is summarized in Figures 1 to 3 and presented in detail in the BASIC ANALYSIS AND TRAINING PATTERN portion of Section 2.

1.2 REVIEW OF COASTAL RESOURCE MANAGEMENT IN THE CNMI

The Commonwealth has had an active Coastal Resource Management Program since 1980 and is thus well ahead of many other Pacific Island Countries in its resource management experience. Section 3, SEMINAR PHASE, thus presents a valuable case study on how resource management works in practice and what kinds of problems can be expected.

This section also reviews the workshop evaluation process which forms the backbone of the training course. The review is done by the individuals of the CMNI who are actually involved in the Coastal Resource Management Program.

1.3 CASE STUDIES OF PROJECT EVALUATION, ADMINISTRATION, AND ENFORCEMENT.

The TRAINING COURSE PHASE provides practical examples of how projects are evaluated for their environmental, social and economic impact. The two studies chosen are typical of two kinds of problems most islands face: Incoming Development Projects (The JAL NIKKO HOTEL) and Infrastructure Development Projects (Site Selection for Sanitary Landfills).

2. BACKGROUND INFORMATION

2.1 DUAL OBJECTIVES: TRAINING AND REVIEW

The Coastal Resource Planning Office (CRMO) of the Commonwealth of the Northern Marianas Islands (CNMI) has a mandate (Public Law 3-47 Section 3) to:

"Promote more efficient resources management through:

- (A) Coordination and development of resources management laws and regulations into a readily identifiable program,
- (B) Revision of existing unclear laws and regulations,

(C) Improvement of Coordination among Commonwealth of the Northern Mariana Islands' Agencies,

(D) Improvement of coordination between Commonwealth and federal agencies,

(E) Establishment of educational and training programs for Commonwealth government personnel and refinement of supporting technical data;"

The CRMO, in December of 1984, revised its Rules and Regulations and these were published in early 1985. It was, therefore, a good time to have a training course which would serve to review the program, improve coordination between the government agencies involved, and examine new concepts of project evaluation.

The South Pacific Commission's South Pacific Regional Environment Programme (SPREP) was asked to provide such a training course.

The South Pacific Commission contracted with Dr. Richard Cheshier of the Marine Research Foundation to design and conduct the course in collaboration with SPREP, the International Union for the Conservation of Nature and Natural Resources (IUCN) and the University of Guam.

SPREP had conducted a Regional Training Course on Environmental Management for Resource Development at the University of the South Pacific in Suva, Fiji, in 1982 (Thaman & Rizer 1983). Some of the recommendations from that training course were used as a starting place for development of the course program:

1. Broadbased environmental management courses would have more impact if conducted in-country to cater for a wide range of environmental management personnel.
2. Include material on Environmental impact assessment procedures, legislation, data acquisition, report writing and evaluation.
3. Concentrate on practical, hands-on activities to ensure a firm grasp of course concepts and skills.
4. Limit lecture time and have more group participation and creative open discussion to allow participants to share relevant practical experiences and anecdotal evidence.
5. Problem-oriented case study work focusing on real-life management problems is of considerable value.
6. Field trips provide an excellent opportunity to contact and analyze real-life environmental management situations.
7. Followup exercises are needed to find out what parts of the course turn out to have practical value and if the concepts, techniques, and projects have been applied.

These recommendations proved to be extremely useful (See Section 5.2).

Several other documents contributed to the course guidelines. In particular: the IUCN publications on Status and Application of Environmental Impact Assessment for Development (Hornberry 1984a & b); the East-West Center's Evaluation of Environmental Assessment Methods (Nichols and Hyman 1982) and their Holistic Nature and Fragmented Bureaucracies: A Study of Government Organization for Natural Systems Management (Lowry and Carpenter 1984); and Environmental Assessment and Management (Holling 1978).

From these, the Workshop Method of Project Evaluation (2.2) was adapted for the course structure.

2.2 THE BASIC ANALYSIS AND TRAINING PATTERN

X Resource Management is a team effort. The way the the people on the team work together determines how good the management will be.

The first thing to study, therefore, is how the people of the CNMI actually interact to achieve the goal of SUSTAINABLE DEVELOPMENT. Or, how to improve the standard of living for the people of the islands without destroying the delicate natural systems which everyone depends on.

The way the Resource Management Team works is called the Procedures. Are there meetings? Who goes to them and what kinds of things are talked about? Who looks at project proposals and what do they look for?

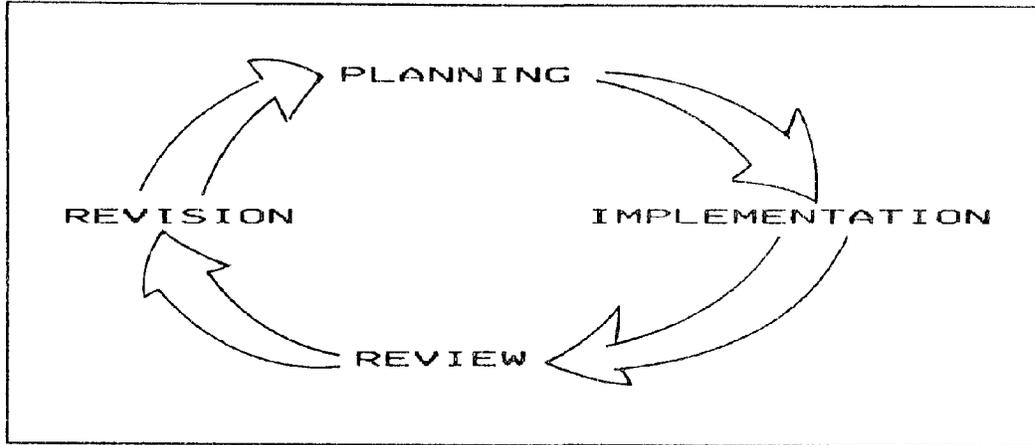
Are the procedures working? Where are there problems? What could be done to make the system work better?

X Are the basic priorities clear? Are the team members motivated? Are they trained and skilled? Do they have enough funds? Is the political support strong? Are policies consistent? Are there conflicts between what the different team members want to do?

The Procedures are written up in the new Rules and Regulations. Do things really happen the way they are written up?

The procedures describe the Permitting Process. Permits are a legal means to make sure that new development projects are well planned so they really do benefit the people of the CNMI without damaging the natural systems.

The permit process involves the cycle of PLANNING (Project Evaluation), IMPLEMENTATION (Permitting with Conditions), REVIEW (Monitoring) and REVISION (Enforcement).



THE EVALUATION PROCESS: A MANAGEMENT CYCLE

The Coastal Resource Management Program was planned, implemented, and then reviewed and revised. The course was part of a review phase. All good management activities, including the development and evaluation of projects, go through the same cycle; often many times.

In the planning phase, problems and alternative ways to solve them, are identified. The selection of a strategy and putting this into action is the implementation phase. Determining the outcome and revising the planning and implementation take place in the review and revision phase. This process is usually represented by a MANAGEMENT PLAN (Kaufman 1972) like this:

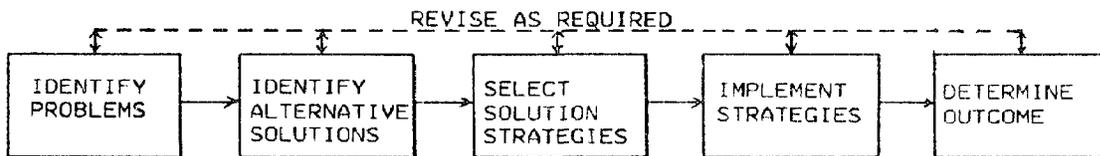


Figure 1. Course design, a systems analysis Management Plan

Look this over carefully as it is the basic pattern used in this course. It is how the entire course is structured from beginning to end (Figure 3). It is how the projects will be evaluated for their environmental impacts (Figure 4). And it is the format for the recommended permitting procedures (Figure 25) as well as the format for recommended future training courses (Figure 26).

PROJECT EVALUATION PROCESS

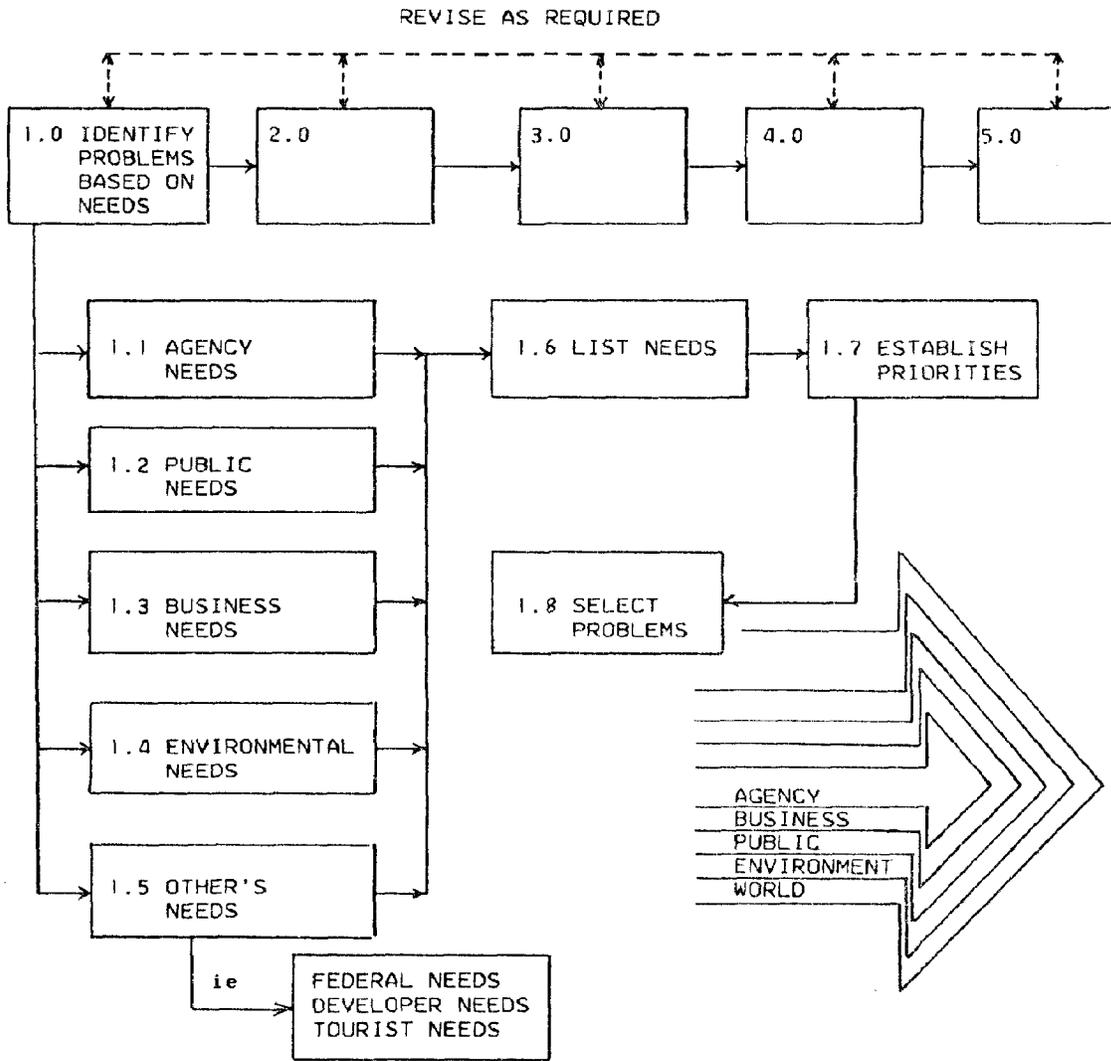


Figure 2. Establishing needs: The first step.

We can expand on each part of the Management Plan like this to form a MISSION PROFILE. Good management means good planning. And that means taking the time and effort needed to discover each participant's needs and get everyone working in the same direction.

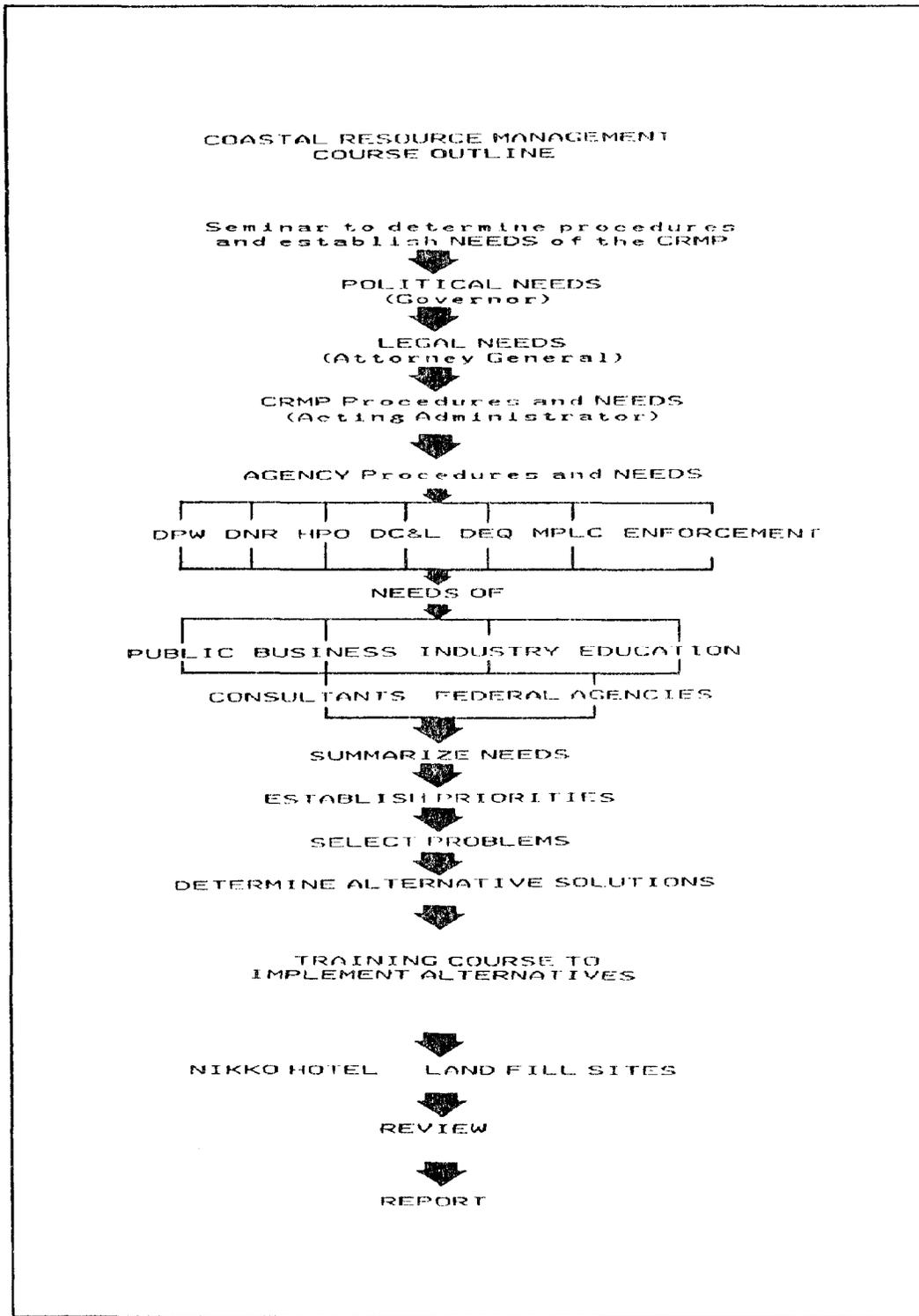


Figure 3. Course Flow Chart

THE WORKSHOP PROCESS

Holling (1978) tested many different ways to do environmental assessment studies. He was part of a team of specialists who wanted to sort through the many different systems to find the ones which worked best. Their most important discovery was that the best impact studies came from a series of workshops separated by intervals in which the individual people worked alone or in small teams. Three or four workshops were needed to do a proper job.

Workshop 1 is a meeting of the people who will become the CORE GROUP. Generally 3 to 5 people follow the project from beginning to end; coordinating the meetings, keeping everyone informed, and editing the results and seeing to the publication of the report. At the first meeting the Core Group considers the project in a general way and discuss what will be needed for the more intensive workshop. Who will be invited, what will each need to prepare, what will the agenda be, and so on. This is called SCREENING, because it sifts out the major aspects of the project.

Workshop 2 is the SCOPING meeting at which all concerned parties present their views as to what the problems are and how to solve them. This intensive workshop may last a week and is intended to get as much information on the subject as possible out into view quickly and without duplication.

Then the core group works up the information, implements suggestions and keeps people active on various parts of the project. This period may last several months depending on how hard the problems are.

Workshop 3 is the REVIEW meeting where the results of the various test projects are looked at by the whole group and comments made for revisions. The methods for final implementation or publication are developed and set into motion.

This workshop process (Fig. 4) forms the structure for this course (Figure 3) and for implementation of the management plan format (Figures 1 and 2) which appears so often in this training course. We did not, in fact, conform exactly to this formula (See Section 5) and it would have been better if we could have.

2.3. THE CORE GROUP.

The Core Group was made up of the following people who took part in the entire training course:

INSTRUCTORS

Richard Chesher of the Marine Research Foundation designed the course in coordination with SPREP and IUCN and was the course director.

Richard Randall of the University of Guam instructed in natural history of the Marianas Islands and consultancies.

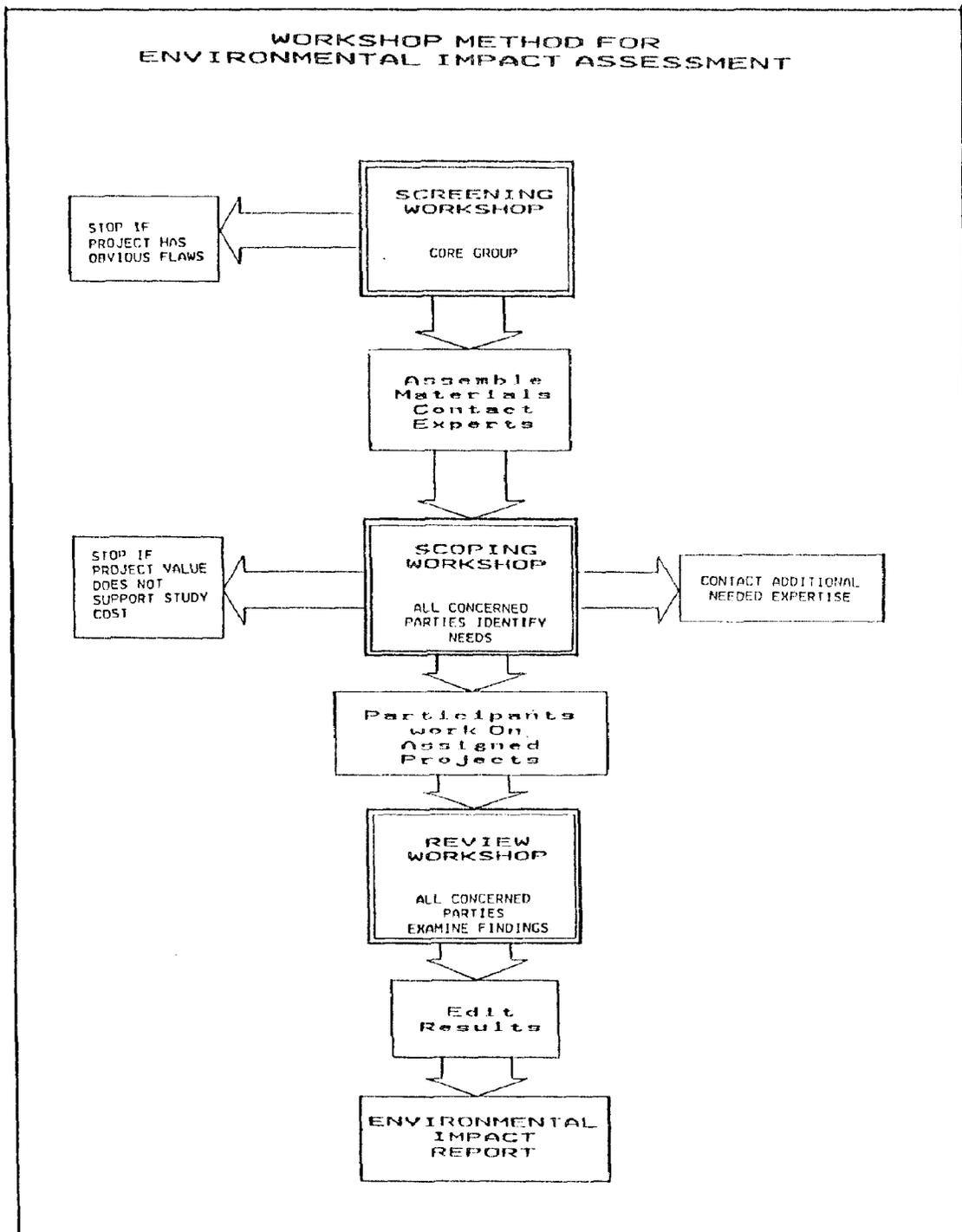


Figure 4. Workshop Method of Environmental Impact Assessment

TRAINING COURSE PARTICIPANTS

Vicente Cruz Aldan. Chief Enforcement Officer CRMO

Pedro M. Cruz. Assistant CRM Coordinator for DPW.

Calistro M. Falig. Fishery Specialist II. DNR.

Michael Fleming. Program Archaeologist. HPO.

Bruce LLOYD. Information Officer. CRMO.

Brian P. Reyes. Researcher. CRMO.

Marja (Lee) C. Taitano. Coastal Coordinator Rota CRM.

Ricardo P. Villagomez. Coastal Coordinator Tinian CRM.

2.4. PARTICIPANTS AND CONTRIBUTORS.

Numerous people contributed to or participated in the seminar and the training course.

Jeremy Carew-Reid, Coordinator of SPREP, initiated the project concept with Mark Halle of IUCN and Tami Grove of the CRMO. The SPREP Coordinator also supervised the preparation of the project materials and subsequently reviewed and edited the report in Noumea. SPREP and the IUCN jointly contributed about one third of the project cost.

Governor Pedro P. Tenorio supported the seminar and training course and contributed comments on executive policy in the CNMI.

Tami Grove, the Acting Administrator of the Coastal Resources Management Office and Debby Knutson, the Coastal Advisor, along with the entire staff of the CRMO provided logistic support, expert guidance and active participation. The CRMO provided two thirds of the project cost.

George Greene, representing the IUCN, assisted with the setting up of the project and provided excellent IUCN reference materials for the course. His expertise in environmental impact assessment and management of workshops and meetings is reflected throughout the program. His expenses were contributed by IUCN.

Agnes McPhetres, President of the Northern Marianas College and Charlie Frear of the College's extension service both contributed time and expertise to the course as well as the facilities of the college campus.

A list of other people who attended or made presentations to the seminar or training course is given below in alphabetical order. Those who made presentations are discussed in the text and listed in the detailed schedule of events in appendix A.

Juan Babauta. Dept. Education
Gregory Baker. Env. Protection. Trust Territory.
Don Barcinas. Assoc. Insurance of the Pacific.
Cindy Bower TTPI Energy Programs
Gabriel Boyer, Chamber of Commerce
Patrick Bryan, DEQ
Martin Cabrera, CRMO
David Camacho, DC&L
Efrain Camacho, M&E Engineering
Frank Camacho, DC&L
Bill Concepcion, MPLC
Bob Coldern, NMC.
Jim Culbert, DNR Forester
Louis Duenas, CRMO
Stan Good, DPW
Ivan Groom, Consultant, Northern Islands Company
Frank Guerrero, MPLC
Nick Guerrero, Director DNR
Ramon Guerrero, Special Assistant Governor
Don Herron, Deputy Attorney General
Al Hockett, DPW
Rexford Kosack, Attorney General
Hans Krock, Univ. of Hawaii
William Lopp, Chief DEQ
Paul Manglona, Civil Engineer.
Ricardo Naeskebei, CRMO
Jesus Pangelinan, HPO
John C. Pangelinan, Director, DPW
Francisco Rosario, Governor's Information Officer
Ben M. Sablan, Congressman CNMI
Jesus Sablan, Director, DP&L
Sybil Spencer, News Director, KCNM Radio
Hiroshi Takagi, Asst. Manager Bus. Dev. Japan Air Lines
Anthony Tanner, Bur. Planning
Elizabeth Udui, Education Officer, Energy Office.



Figure 5. Attorney General Rex Kosack at the Seminar



Figure 6. Site inspection during the Seminar

3. SEMINAR PHASE

3.1 OBJECTIVE

A four day seminar was the first step in the training course. Its major objective was to improve communication and coordination between the various participants in the Coastal Resource Management Program (CRMP). The Seminar covered the first three sections of the management plan shown in Figure 1:

1. IDENTIFY PROBLEMS BASED ON NEEDS
2. IDENTIFY ALTERNATIVE SOLUTIONS
3. SELECT SOLUTION STRATEGIES

In addition, it was structured to determine:

1. POLICY
2. LEGAL STRUCTURE
3. ACTUAL PROCEDURES

The seminar thus was a vehicle through which participants could perform their own analysis of the CRMP and what should be done to improve the system. At the same time, this self-training activity provided an example of how the workshop method is used for project evaluation.

3.2. SCHEDULE AND SPEAKERS

The detailed schedule and speaker list is given in Appendix A. Figure 3 shows how the seminar was structured. It was important to have the following sequence:

1. Policy Statement by the Governor. This established the overall desired outcome of the CRMP. This was needed because "Management" means knowing:

A. WHERE WE ARE NOW.

B. WHERE WE WANT TO GO.

The steps required to close the gap between these two positions are the project NEEDS.

A PROBLEM is a need which has been selected to be achieved.

2. The Attorney General presented the Legal Mandate. This provided a firm understanding of what legal MEANS were available to solve the problems of CRM.

First we determined where we wanted to go.

Next we looked at the Rules we had to work with.

3. Then the various active participants (ACTORS) in the program presented their versions of

where they were,

where they wanted to be (their NEEDS) and

Alternative solutions to the needs.

(See Figure 2, 1.0 to 1.5)

4. The needs were then listed (as in 1.6 of Figure 2), priorities established, and the major problems selected.

5. Alternatives were also listed. Had there been time, they would have been given priorities, evaluated and implemented.

3.3. GOVERNOR'S POLICY STATEMENT

X Governor Pedro P. Tenorio's policy statement provided an excellent overview of the long term objectives of the CNMI. The full text is given in Appendix A. In summary, the main points were:

1. It is in the best interest of our commonwealth citizens that the volume of business and the number of development projects continues to expand.

2. Island Resources must be taken into account "SO THAT FUTURE GENERATIONS WILL CONTINUE TO ADVANCE AND BENEFIT FROM THEM AS WE ARE DOING PRESENTLY."

3. The Coastal Resources Management office and the other government departments and agencies represented here share this important responsibility.

4. With proper management, we can have continued growth, now and in the future, while maintaining the resources that are so important to us all.

3.4. ATTORNEY GENERAL'S LEGAL SUMMARY.

Attorney General Rex Kosack presented a summary of the legal background of the CRMP, its federal funding schedule, and legal relationship to federal permitting requirements.

His full text is presented in Appendix A. In summary, the main points were:

1. As development continues, conflicts arise because of the limited amount of land.

2. What someone does on their own land has a direct impact on their neighbors and, to some degree, on everyone on the island.
3. There are different priorities for land use and development activities. He gave examples of conflicts between recreation and industry, marine parks versus dynamite fishing, maintaining natural barriers against disasters versus coral harvesting, disasters. He then identified the different interests as Federal, CMNI, Island, Government, People, Industry.
4. The CRMP grew out of the federal Coastal Zone Management Act of 1972. It is 100 percent federally funded.
5. Public Law 3-47 gives the legal authority for CRMP and the recently published Rules and Regulations establish how the CRMP complies with its legal mandate.
6. The relationship of participants in the CRMP are shown in Figure 7. Please note the diagram shows coordination linkages and not lines of command.
7. There are severe penalties for violators of the CRMP permit system.

The Attorney General listed several problem areas during the discussion period. These were:

1. The Coastal Advisory Council has not been active. It forms an important link with the community and should be incorporated into the system.
2. There is an area of uncertainty with the legal appeal process in cases where the Governor must make a final decision on a permit.
3. The federal government, especially the military, is more or less exempt from this process and this may cause future problems.
4. There has not been much thought given to methods of dealing with accidental problems such as wrecks or oil spills or what happens if a major development is destroyed by fire, storm or earthquake. Who is going to clean up?
5. There is a need for better public participation in the process, especially in public hearings on the out islands. This is an educational need.
6. Eventually there might be a problem with transient vendors - signs, soliciting - especially in heavily touristed beach areas. How can we regulate beach use to prevent tourist abuse?
7. The whole subject of fines is not well covered by law or precedent. How do we set the level of a fine? What do we base the value of a violation on? and there is no provision for what

COASTAL RESOURCES MANAGEMENT PROGRAM

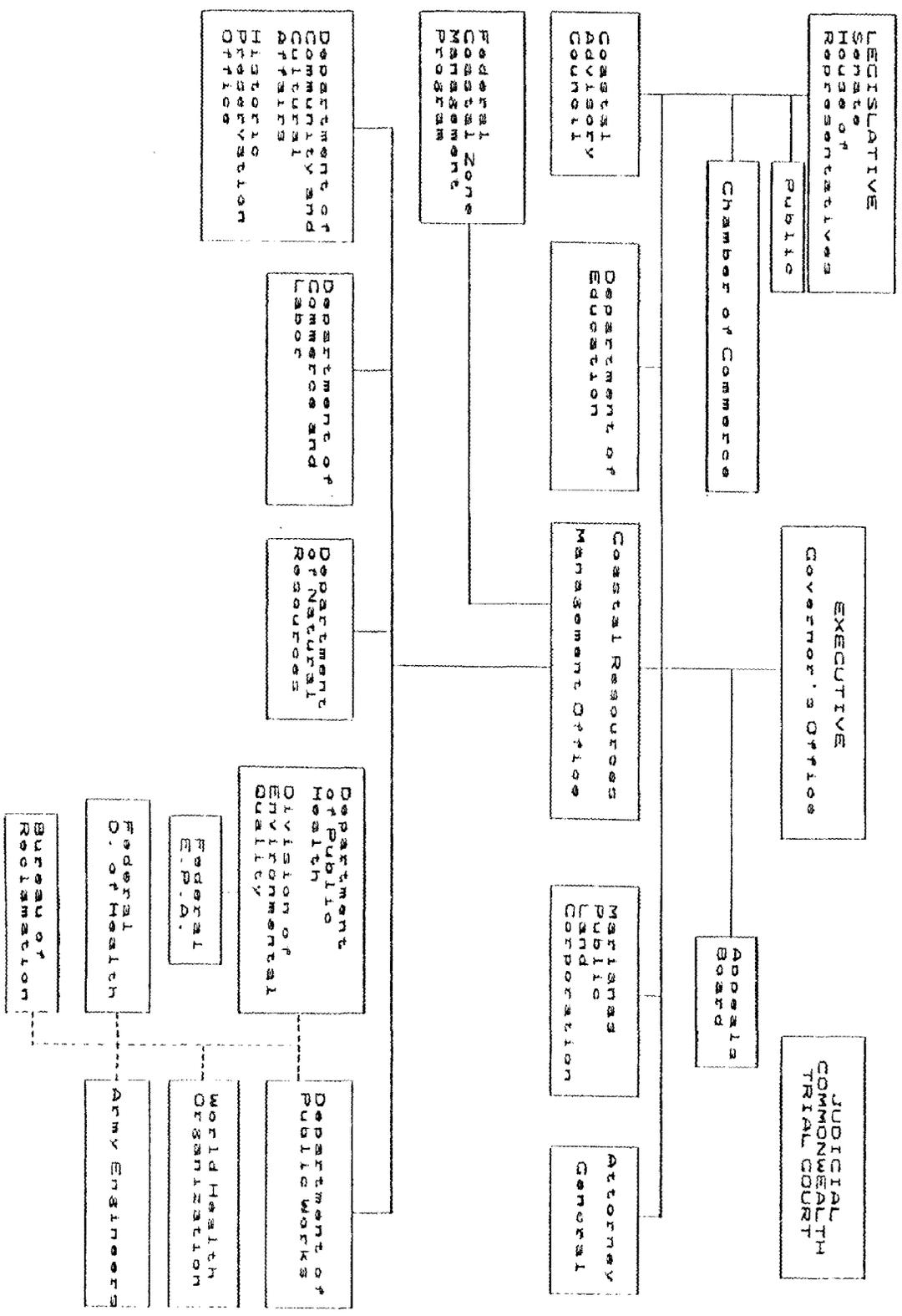


Figure 7. Participants in the CRMP

to do with any money collected for violations.

8. Enforcement Officers need to be trained in exactly what kinds of information to gather and how to gather it. Often what the enforcement officer does will determine the success of the CRMO in court. We need a training course or guidelines and good cooperation between the various enforcement agencies of the government.

9. The Attorney General's Office is short on manpower and long on work. We need to be notified immediately of any violations. It is difficult to respond to a violation if we don't know about it until weeks after it has happened. This is a special problem in the out islands and where the violator is transient.

3.5. ACTING ADMINISTRATOR CRMO

Tami Grove presented an overview of the CRMP entitled "Coastal Resources Management: Environment and Economics". The full text is presented in Appendix A. The major points were:

1. The Coastal Resources Management Program PROMOTES AND REGULATES development in a wise and orderly manner to protect the interests of development, the general population, and their shared environmental resources.

2. Environmental resources are economic resources. Scenic and historic resources, clean water, living coral reefs, sand beaches, are the economic resource base for our tourist industry.

3. CRM assures that development projects are planned for the benefit of all parties.

A developer has the right to know about potential problems with the island infrastructure or with the chosen location. If it is in a flood plane or in an area where water is severely limited, the developer needs to know about it in advance.

Properly designing the development to prevent potential future problems is less expensive than redesigning a system, cleaning up a problem, or creating ill will with clients.

4. Projects done by the government or by individuals also need to be considered from different viewpoints. For example, bulldozing vegetation on steep slopes during the rainy season can cause:

soil loss to the property owner through erosion

sediment clogging of watershed areas

destruction of valuable coral reef communities and important fisheries.

5. By acting as a coordinating mechanism for all the various

government agencies, CRM saves everyone time and money during the planning operation. The coordination activities provides a continually improving level of expertise in development planning.

6. CRM protects people's investments by assuring land use is compatible with adjacent activities as well as being compatible with natural resources.

7. Everyone on the island is involved in the CRMP and can participate in the planning process; especially for large development projects.

8. This Training Course is designed to increase peoples understanding of and participation in the development process, thereby making coastal resources management more efficient, cost-effective, predictable and streamlined.

The permit process as set out in the new regulations was then explained. It is presented in Figure 8.

During the discussion period, the following problems were considered:

1. The public had very little input into the rules and regulations. The legal mandate represented the public's needs but the public and business community did not have much to say about the regulations. Perhaps the Coastal Advisory Council should be more active in its advisory role.

2. The major difficulty with the program has been getting the developers to come in for a meeting before they spend too much time and money on their project. If they come in prior to getting locked in to a design, costly mistakes can be avoided. How can this be accomplished?

3. CRMP agencies are already overloaded with work. How can they handle the complex planning process needed for major projects? Getting the information and evaluating it costs time and money which is often not available. Even reviewing studies and evaluations is difficult without expertise.

4. The number of incoming permits and the time constraints on replying to them makes it difficult to do an adequate job given the present staff levels.

5. We don't know what problems might be coming up with the military.

6. Monitoring and enforcement becomes more difficult as the number of permits increases.

7. Long term planning is essential but at present we are unable to devote much time to it because of the number of project permits we have to deal with.

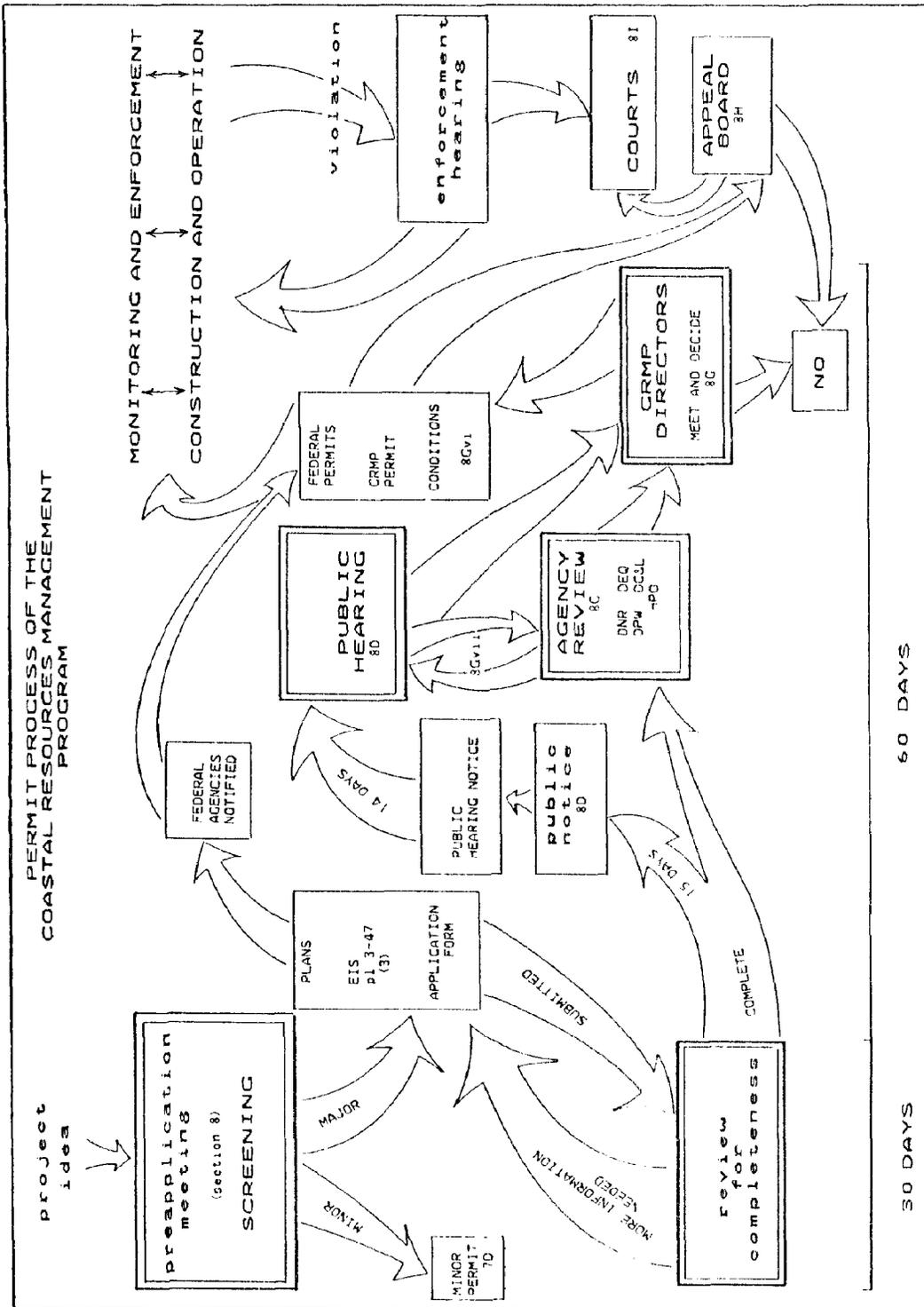


Figure 8. CRMO Permit Process (According to Regulations).

3.6. SUMMARY OF PROCEDURES BY AGENCIES

Representatives from each of the government agencies involved with the permit process presented an account of what happened to permits when they came to them from the CRMO. Normally, the agency directors receive the permit application with attendant data well after they have actually heard about the project. Applications are often discussed in advance at regular director's meetings.

The applicant and various technical or professional people within some of the agencies are sometimes in contact well before the application is formally submitted. Consultants hired to prepare an environmental evaluation for the applicant may interview all the agencies to put together the evaluation.

Within each agency the director decides which people will look at any particular permit application. Although earlier memoranda of understanding established a coastal coordinator in each agency, this was discontinued along with the memoranda. At present, only the directors formally meet to consider permit requests. Informally, however, technical and professional people meet if the need arises.

Therefore, the following schematic representations of what each agency does have, in practice, considerable flexibility and may not truly reflect what actually happens in a project review.

Figures 9, 10 and 11 show the permit handling process for the major agencies. The Division of Environmental Quality is not represented as the director alone reviews permit applications.

In general, once the permit is submitted through the CRMO, the director passes it on to the people shown in the figures. These people then contribute what they have to say about the permit and return it to the director. All the directors then meet to discuss the comments of their staff members and decide on whether more information is needed, if the project application is complete or not, and what (if anything) needs to be added or considered before a permit and its conditions is (or is not) issued. Technical staff sometimes assist the directors at meetings if needed.

The general considerations each agency gives to permit applications are as follows:

1. Department of Public Works. Basic physical infrastructure:
Figure 9.

Roads

Power

Sewage

Storm Drainage

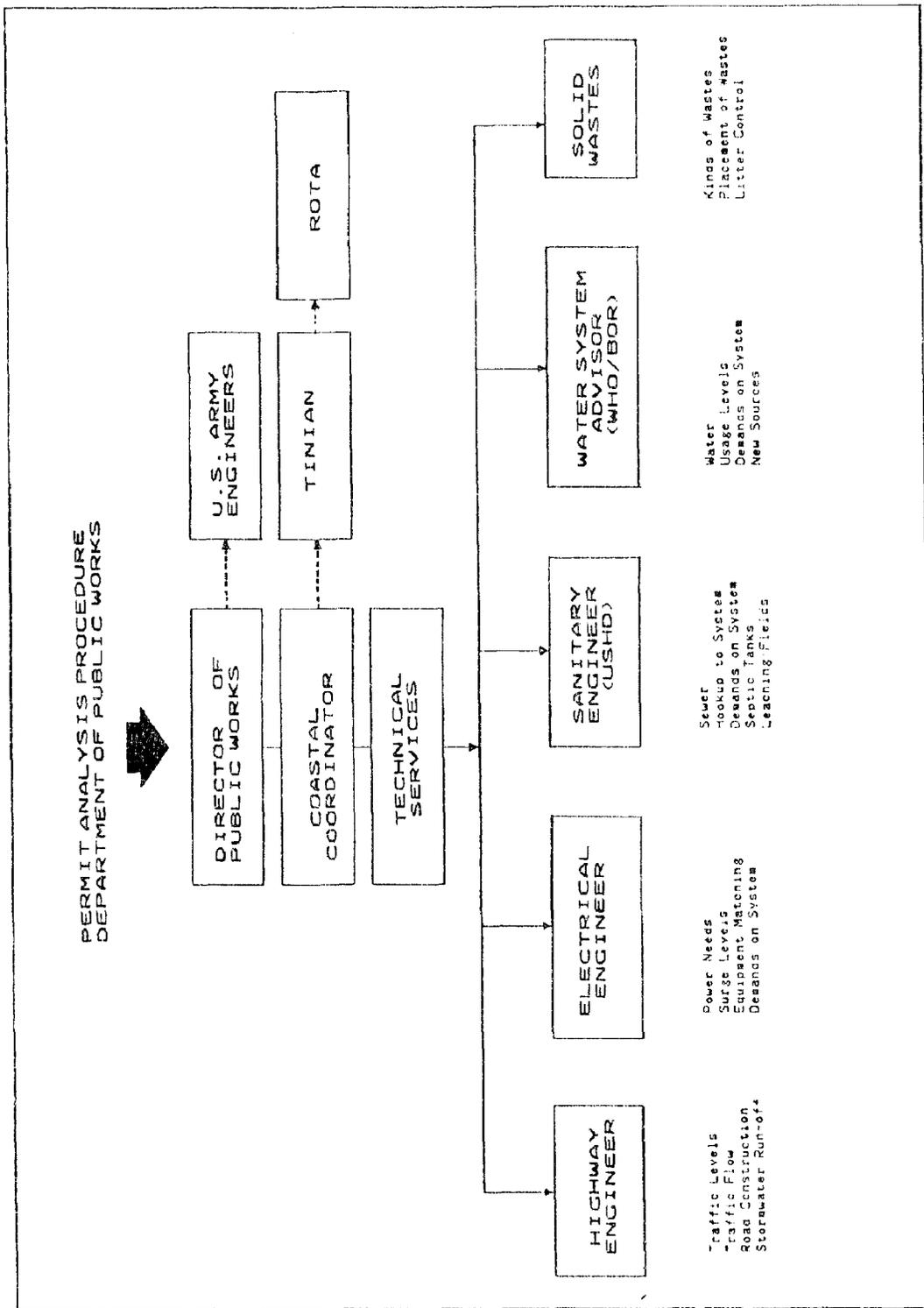


Figure 9. Permit Analysis Procedure for DPW

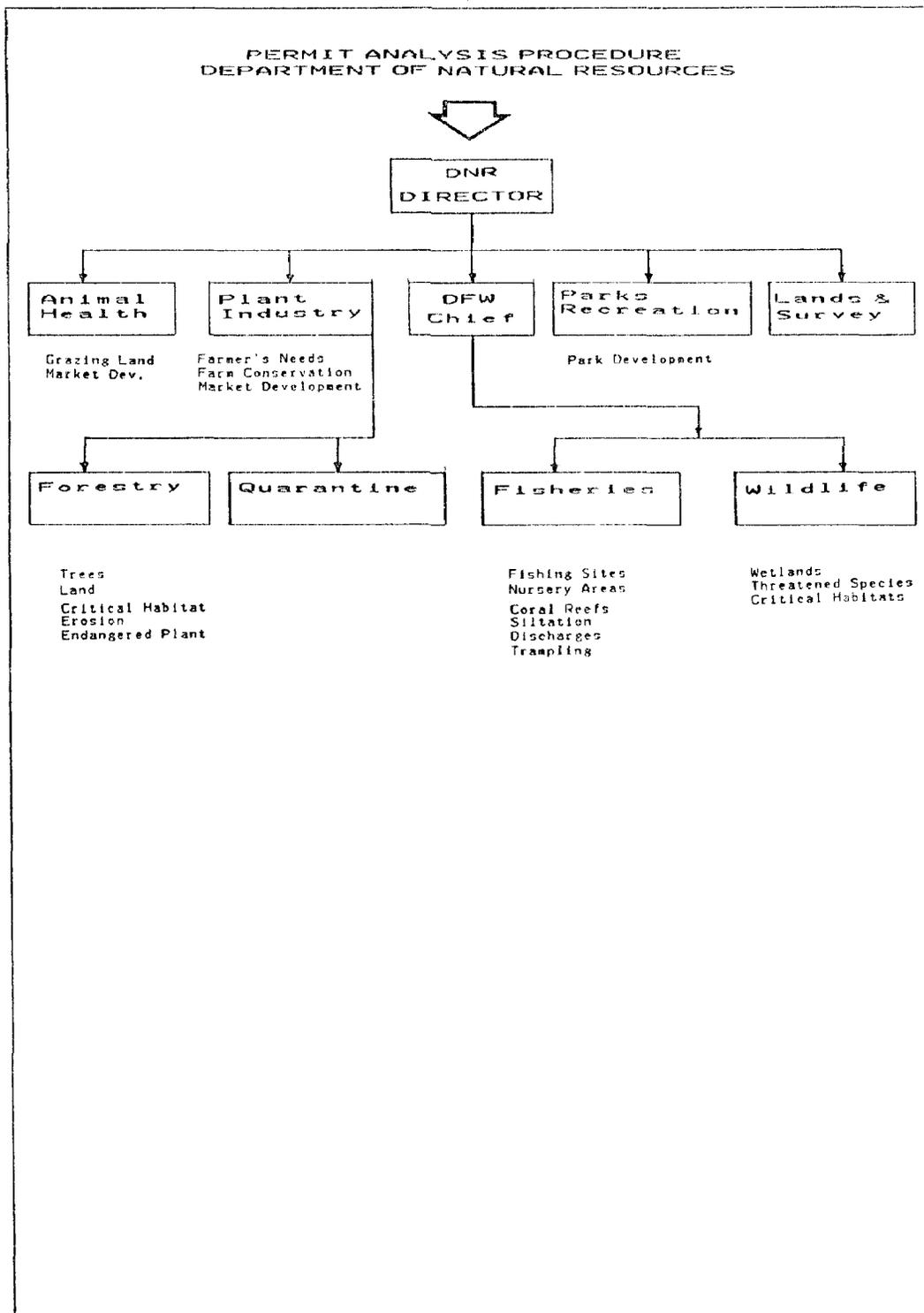


Figure 10. Permit Analysis Procedure for DNR

Fresh Water

Solid Wastes

2. Department of Natural Resources: Impact on natural systems.
Figure 10

Fish and Wildlife

Water Quality

Conflicting use of Marine or Marsh habitats

Park Development

Forestry

Agricultural Impact

3. Historic Preservation Office. Figure 11

Preservation of historic artifacts

Development of tourist or educational facilities

4. Department of Commerce and Labor: Economic Impact

Potential Revenue for residents, government.

Business Licenses

Need for alien labor

New business possibilities

Local purchases

Export promotion

Job potential

Educational guidance

5. Division of Environmental Quality: Water and Air Quality

Regulates and Monitors discharges into the Environment

Drinking water quality

Marine water quality

Earthmoving

Solid wastes and Hazardous wastes.

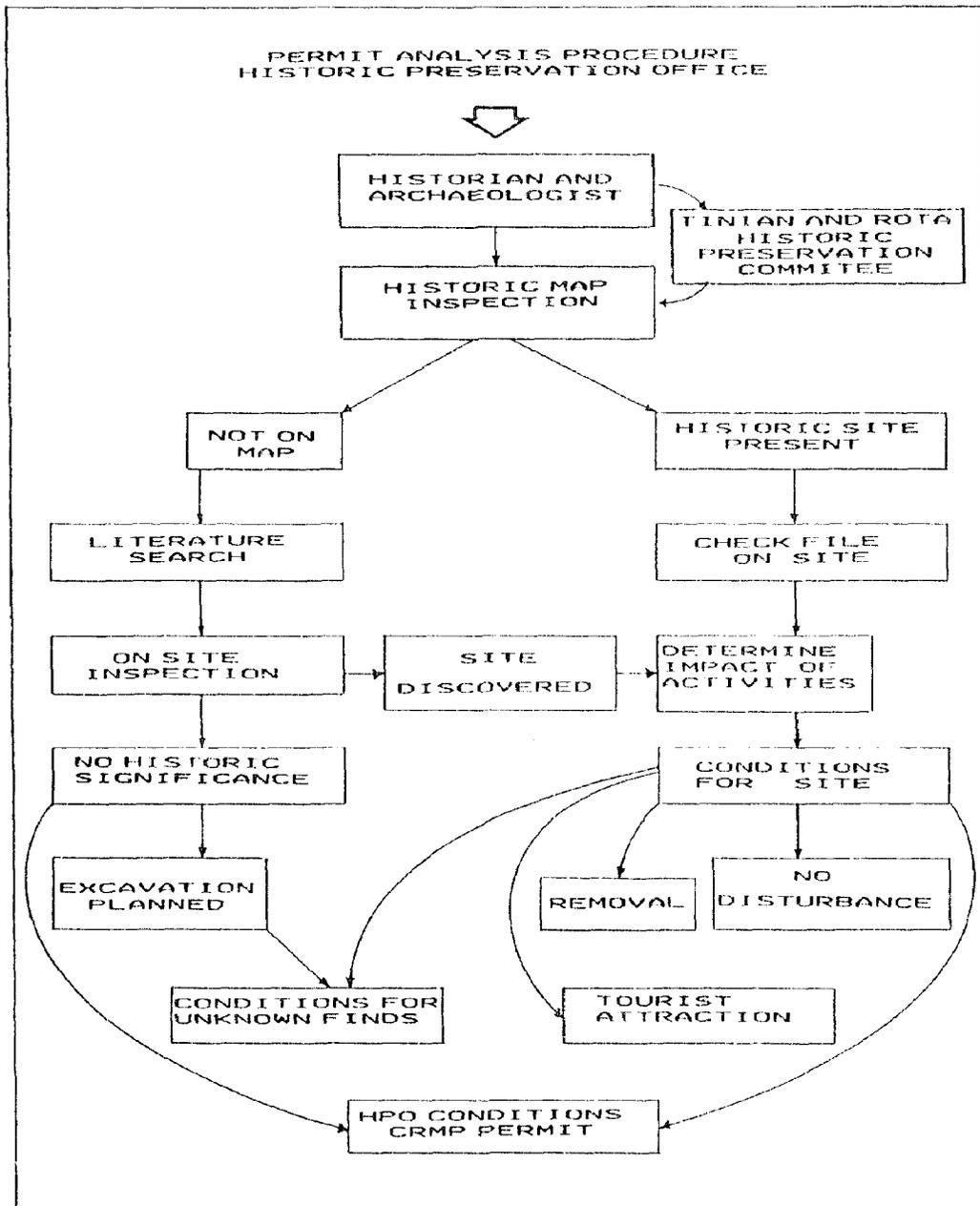


Figure 11. Permit Analysis Procedure for HPO

Pesticides

Air pollution

Underground Injection

Sewage effluents and Septic Tanks

6. Marianas Public Land Corporation: Land leases. Figure 12.

The MPLC is not formally within the CRMP but frequently interacts with the program. The MPLC leases public land and, as it owns some 80 percent of the land, many or most large development projects require a lease. The lease is granted according to procedures illustrated in Figure 12.

3.7 SUMMARY OF NEEDS AND CONCERNS BY AGENCIES.

Each agency identified needs within the permit system. These were elaborated during the general discussion which followed the presentations. A summary of the problems follows:

1. Applicants leave out information from the application form or fill in "imaginary" or "dream" figures.
2. Power and Water usage is given as a single figure but actual use includes peaks and lows which are often more important.
3. The government has to "do the engineering work" for some applicants.
4. The actual availability of water is still not settled.
5. Infrastructure needs to be strengthened; most water is not metered, pipes are old and leaky, power bills are not paid.
6. Government personnel are fully occupied trying to keep up with island's demands. Difficult to deal with new projects. Impossible to work on advanced planning.
7. The developer's needs are immediate and may provide help in upgrading the community infrastructure but the government can not respond to this opportunity because it has budget and political limitations. Thus, JAL might build a sewer line but DPW can't hook up local residents to it during construction. We need to be able to respond to such opportunities.
8. Developer's studies may be important for accumulating scientific information about the island. How can this be incorporated into the system and used? We need to be able to have a say on the study design so its information is usable by our departments.
9. Studies and reports are spread all over the place and nobody

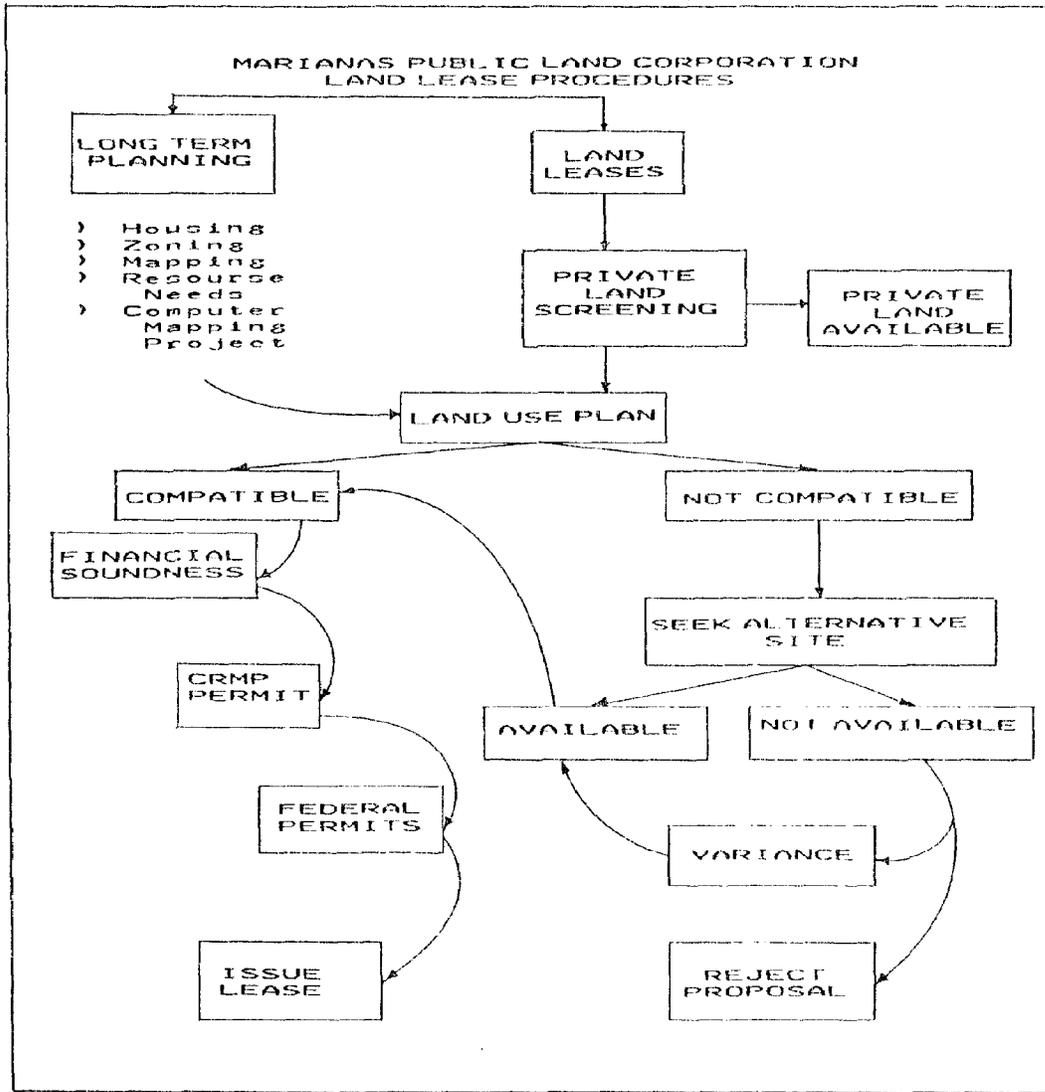


Figure 12. MPLC Land Lease Procedures

is sure what information is already available.

10. Evaluation of some aspects of economic development is difficult as we must rely on the developer's information.

11. Project reviews are sometimes left until the last minute and there is no time to do an adequate job.

12. Miscellaneous comments about the need to have project evaluation proceed on a technical-professional basis with less political conflict. This was obviously thought to be a problem but was difficult to talk about. The need was to have both developers and politically powerful individuals really understand what CRM was all about and not look at it as "interference" with development.

3.8. PUBLIC INVOLVEMENT

Congressman Ben Sabian, vice chairman of the Research and Development Committee and a member of the Coastal Advisory Council discussed the public's role in CRM. His main points were:

1. Is the public really involved with the CRMP? There are three measures of success. ATTENDANCE, PARTICIPATION, INFLUENCE.

2. Attendance at public hearings is a prime measure of whether the public is getting the message. Too often public hearings are held for the administration, not for the public. 70 to 80 percent of the people who come to the meetings are from the government itself.

3. Participation is measured by the public contributing meaningful comments to the hearing. Do they really understand what it's about?

4. Influence is measured by what the government does about the comments people make. Do their contributions have any results?

Discussion brought forth the following concerns and recommendations.

1. People don't understand what is really happening and don't find out about the meeting in time to prepare for it. Often they don't understand what it is all about until after the meeting. There needs to be a better distribution of the information well before the meeting. People don't read notices in newspapers. Maybe there should be a preliminary meeting.

2. Public hearings need to be held in the village where the project will happen and at a place the village people are not afraid to come to. Translators should be available. Lots of good visuals and graphics and good examples are needed to get the message over.

3. There should be more public participation projects to elevate environmental awareness. Projects that people can do like tree

planting or beautification or poster contests.

4. Hearings need to be careful about cross-cultural conflict. The public here can be dominated by authority and may not speak at a formal hearing. Maybe there should be an informal and then a formal hearing. "There's a glass there. You can feel it but not penetrate it."

5. CRMO needs to activate the Coastal Advisory Council. They could play an important part in getting public involvement, and distributing information.

6. Topics need to be reduced to an understandable level. And we can't have people talking for two hours about some technical thing; people get burned out just listening.

7. The local people can have important things to say and the government has to be ready to listen and willing to make the effort of understanding what the people mean and not just how they say it.

3.9. THE INDUSTRIAL VIEW

Paul Manglona, a civil engineer in the construction industry in Rota discussed how industry views the CRMP. He summarized development activities now underway as Tourism, Fisheries, Military Development, Health Services, Schools, Housing, and all Public Utilities. Contractors do all this work. Problems arise when CRMP conditions impose (unnecessary) restrictions on the contractors.

1. No heavy equipment allowed within 150 feet of the High Tide Line means manual labor. This condition was imposed because some bulldozer operators pushed materials onto a beach or over a cliff. Maybe the answer is to train the bulldozer operators rather than to make us spend money on manual labor. Perhaps a training course on construction techniques for heavy equipment operators would help.

2. There is a break between the contractor, the developer and the CRMP. There has to be better communication between CRMP and contractors. The developer may not tell the contractor everything and last minute changes can be very expensive. If there are conditions which we don't know about and you catch us doing something wrong we might have to spend twice as much money and there goes our profits.

3. Septic tanks are actively discouraged but they are by far the best and cheapest way to handle sewage in rural areas. There needs to be some cost-effective thinking in CRM.

4. There should be some clear guidelines for contractors so we don't have problems with CRMO.

5. Outside contractors, especially, need to have a briefing on what the laws and conditions are.

6. Delays in the permit system can cost the contractor lots of money. When we see a big job coming we can't go do other things. There is a need for CRM but you've got to think about our budgets.

Norman Tenorio, President of the Saipan Chamber of Commerce, contributed a paper (not read at the seminar). The full text is included in Appendix A.

The main points were:

1. "Although the CNMI Coastal Resources Management Program has made life difficult for us from time to time, we firmly believe it to have merit. As the only land management law here, it is needed to control and balance development of our beautiful coastal area."
2. The Chamber of Commerce has a seat on the Coastal Advisory Council.
3. The Saipan Lagoon Use Management Plan of the CRMP was developed with the help of the Chamber of Commerce and the CRMP funded shoreline landscaping activities which are of great value.
4. The CRMP has participated in the Economic Development Conference and helped identify many specific development needs (see full text for list).

Specific needs of the CRMP were given as:

1. The Chamber of Commerce would like to participate in the review of large development projects to help direct the islands economic development pattern in desirable and acceptable directions.
2. There should be requirements for major developments from outside the CNMI to divulge the types of economic benefits the local business community and the average person can expect to realize from their presence.
3. Permit conditions might include the requirement that a percentage of the goods needed be purchased from the local economy or require advertised requests for bids as on government projects.
4. CRMP should become more active in planning for fisheries development.

3.10. ENVIRONMENTAL CONSULTANTS

Ivan Groom of The Northern Islands Company presented the Scientific Consultant's view of the CRMP. His presentation concentrated on the role of the consultant in the process as a valuable link between the developer, the CNMI government and the federal government.

The consultant is an independent voice who must sustain a professional standing with the government and yet be responsive to the developer's

needs. The steps in project assessment were outlined from project inception to report.

Problem areas were identified as:

1. Difficulty in establishing good terms of reference for studies.
2. Need to begin consultancy before the design for the project is finished.
3. The government needs a list of available (and credible) consultants for various studies. Developers should be provided with a list of acceptable consultants so they can interface with CRMP more efficiently.
4. There is an inadequate amount of literature, or access to literature and data. A research library needs to be established and existing data and studies cross-indexed in it.

3.11. FEDERAL INVOLVEMENT

Tami Grove and Bill Lopp both spoke to the subject of Federal Involvement in the CRMP. Essentially, the federal position is a to back up the local permit program. Federal permits will not be issued without first having the CRMP permit. Duplication of permits is avoided through joint permitting actions within DEQ.

Concerns and Needs were summed up as:

1. The uncertainty over the exclusion of federal lands, especially military lands, from the CRMP.
2. In theory CRMP extends to the limit of the 200 mile economic zone. The program actually has no idea what to do about this.
3. Federal studies on CNMI resources need to be taken advantage of. They need to be assembled and made available to developers, consultants, and between government agencies. An inventory needs to be made. Data collected for special purposes may be needed in another context and should be cross referenced.
4. Data gathering, by federal agencies, local agencies, universities, consultants, and developers needs to be done on a uniform system so it can all be interlocked and used together. All studies done by anyone in the islands should be deposited in a central location.
5. Guidelines for researchers need to be developed to assure these needs are met.

3.12. AGRICULTURAL CONSIDERATIONS.

Charlie Frear of the Northern Marianas College discussed the need for agricultural considerations within the CRMP. His observations included

the following concerns:

1. Government bulldozer operators need to be informed about the dangers of clearing land on steep slopes and during the rainy season. At present, "As long as the bulldozer doesn't tip over it's ok."
2. Guidelines concerning good farming practices for soil conservation need to be worked out and farmers and dozer operators trained in their use.
3. Primary agricultural land needs to be used for agriculture and not for hotels, roads or parking lots.
4. Steeply sloped areas can be used for some kinds of crops, like forestry or fruit trees. Some thought needs to be given to agricultural zoning. This would include compatible land use such as construction of temporary sites on fallow land, integrated farm plots (such as swine, biogas, mulch industry), possible use of organic solid wastes for mulching.
5. There may be a danger from pesticide intrusion into the water table, especially in areas like Kagman.
6. Poor soil conservation practices lead to coral reef destruction and muddy beaches and muddy water. This is not too good for a tourist oriented island.

3.13. EDUCATIONAL NEEDS

Agnes McPhetres, President of the Northern Marianas College, talked about the need for career development in the CNMI and ways the college works with CRMP in developing educational programs and training courses. The college monitors the quality of the courses and assures that CRMP gets quality education and the students get valid college credits. They also do special projects for CRMP such as curriculum development for elementary education, research into special areas, and they provide college degree programs in education, business administration, agriculture, travel management, construction, computing, accounting, police science.

When specific training is needed to meet development demands, the college is responsive. The college is a member of the Chamber of Commerce and its goal is to contribute the staff required for the Economic Development Plan. As an example, the College now has a Hotel Management Certificate for middle management supervisory positions. It includes language training in Japanese.

The college has the responsibility for maintaining the Commonwealth archives and government document collection for use in support of research.

The major problem areas, from an educational perspective, center on the problems newly qualified people have when they return to the island.

When an islander returns to Saipan with his or her degree, they have an attitude which is "Here I am to save the island!" They want the kind of wages that other people with their qualifications get. They expect to be listened to and respected. They want to use their talents and skills.

The people who should or could employ these returnees feel threatened. This is partly the universal fear of youth replacing the older establishment; a personal thing. It is also that the young returnees seem to be a threat to the stability of the community. The new techniques are untried. The difference in language skills and ideas cause personal frictions. The energy of youth and education are seen as being pushy.

As a result many of the returnees can not find or hold jobs which truly use their talents. In addition, the system has long depended on off-island expertise and these people are usually paid higher salaries and have free housing and lavish travel rights. A Saipan person, who might have the same expertise and qualifications, is expected to accept a lower salary, provide their own housing, and have no travel rights.

Nor do they command the same respect as the visiting expert.

We expect some 200 returnees from college off island this year. What will we do with them? Many of the college graduates will leave again. What is the attrition rate?

Another problem area has to do with the students who leave the island to go to college. Many of these do not know what they are getting into. Many do not know what professions to study so they will be useful here in their own society.

The college has begun a program to help solve both these problems. First, students can begin their education here and take courses specifically aimed at preparing them for college off island. Secondly, they can be counseled as to which careers are needed and which careers they have an aptitude for.

The College is considering a program for returning students. The program would include courses in Government Management, and would essentially reorient the student to the CNMI society. The project would work closely with government (or business) and the student's first job would be considered on-the-job-training. An internship. As such it would provide a means for overcoming conflicts and the student would learn to make the maximum contribution of his or her talents within the existing system.

3.14. MONITORING AND ENFORCEMENT PROCESS AND NEEDS

Ben Aldan, Chief Enforcement Officer for the CRMO discussed the enforcement process and designed the procedural flow chart in Figure 13. For monitoring activities, a worksheet is designed for the enforcement officers. This details what a particular project will do and what the CRM conditions are that need to be monitored (Figure 14).

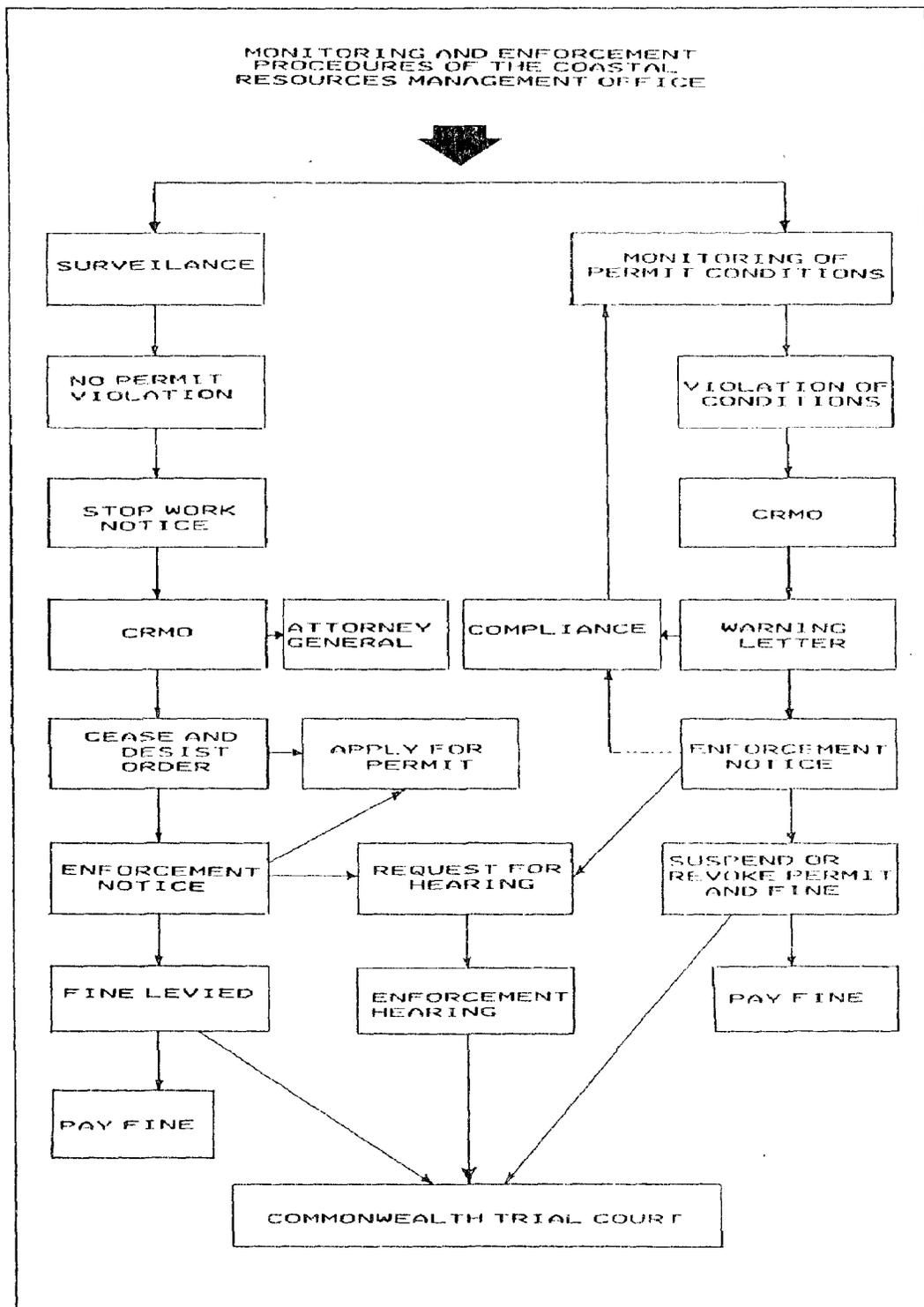


Figure 13. Monitoring and Enforcement Procedures of the CRMO

Figure 15 shows the CRMP out-island monitoring procedures.

Discussion of problem areas disclosed the following needs and concerns.

1. Violations from government are difficult to deal with. The sewer outfall is in violation of the marine water quality standards. What can you do?
2. Its easy to stop a minor violation from an individual but difficult to stop agencies or the whole government. Political pressures exist here.
3. A determined and wealthy violator can cause real problems because of the legal grey areas.
4. Better education is needed so people don't break the law by not getting permits.
5. Conservation enforcement officers do not do their job because they are afraid of poachers who may be armed. The officers are not allowed to carry arms. The enforcement officers need uniforms and badges.
6. A rapid notification and data-gathering and response system is needed. Especially for out islands.
7. Training is needed for enforcement officers in what to look for when monitoring and what to do in case of violations.
8. Better cooperation is needed between all enforcement agencies. For example Boating Safety, CRM and DNR all have boats but except for Boating Safety (which does not cooperate now) there are no regular patrols. The Department of Public Safety should work more closely with CRM. The Police are not informed about CRM rules and regulations.

3.15. WORKGOUPO SUMMARY OF PROBLEMS.

The Core Group assembled all the needs identified during the seminar and discussed these. Then the group undertook the process shown in Figure 16 to complete the project evaluation process shown in Figure 2 (steps 1.6, 1.7, 1.8).

The problem areas, their relative priorities, and suggestions for solving these are summarized below. The many needs identified specifically in the seminar were placed into categories which correspond with the legal mandate of public law 3-47. Significantly, the most important needs identified during the seminar were also areas of highest priority in the public law; Development of an Environmental Ethic in the community (Section 3 Policy, (2)) and Long term planning (Section 3 (1)).

1. Develop an environmental ethic so everyone understands what Coastal resource management is for and how the process works. Highest Priority. 26% score.

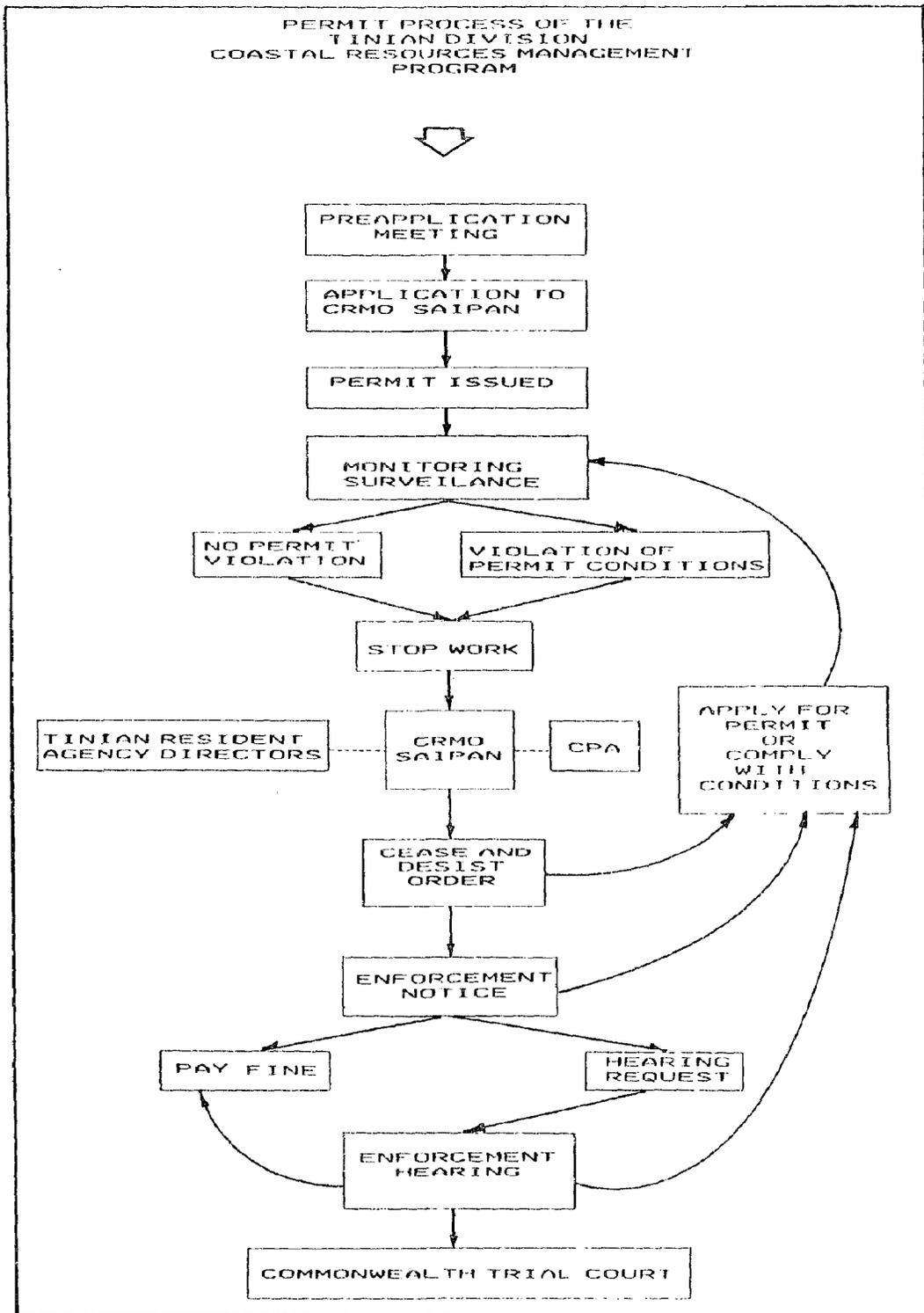


Figure 15. CRMP Tinian Procedures

Who is everyone?

The general public

The executive (government) public

developers (foreign and local)

construction workers

The business community

What are the measures of success?

participation, involvement, effectiveness by all concerned parties.

early project planning

increased training in methods

local financial and political support

How can this be done?

informal, preliminary village meetings near project sites

expand activities of Earth Day to Earth Week

publish guidelines (fact sheets) for:

developers

construction contractors and workers

general public

tourists (guide books and displays)

agency personnel

improve application forms

continue development of school activities

interagency training activities (ie. DNR & DEQ & CRMO & DPS to have enforcement workshop).

career development through management training for college returnees.

2. Long-term planning: to get ahead of the development curve and economize time and effort in project review, a locally developed, appropriate, long-term development plan is required. Environmental assessments can then be done on a sectional basis and not project by project. This was the second highest priority item with a score of 18%.

Who should do the long-term planning?

MPLC has begun development of a computerized land-use system.

CRMO should coordinate input of resource information into system.

What are the measures of success?

production and approval of a set of land and resource management maps.

ease of determining the environmental impacts of new development projects in the planned areas.

legislative approval for plans.

reduction of outsider bias in plans

How can this be done?

develop a memorandum of understanding between the MPLC and the CRMO

CRMP to gather and program data on carrying capacity of zoned land in terms of alternative styles of conducting the activity. For example, what is the maximum beneficial style of tourism development in the areas of the island suitable for this?

CRMP to input data relative to resource availability and resource needs for zoned areas. For example, how much water is present in the zoned area and what is the maximum number of people this can support? What would be the impact of using desalination?

Public involvement needs to be an integral part of long-term planning and may be the best place for involvement of the Coastal Advisory Council.

Commonwealth goals and objectives need to be defined in a legislative plan, and high-level government support must continue throughout the process.

Long-term environmental problems such as municipal discharge of sewage into the lagoon and the impact of salty water on agricultural soils should be considered in this planning activity.

3. A series of needs were identified as "Administrative". This tied in priority with number 4 at 15%.

Memoranda of Understanding need to be renewed between the various agencies, including MPLC, to increase interagency cooperation on a technical and professional level.

Projects need more efficient screening and the smaller ones handled more quickly to leave time for more complex issues.

More responsibility needs to be delegated, especially to the outer islands.

The Coastal Advisory Council needs to be revitalized.

Delegated work (to agencies, consultants, etc.) need to have better terms of reference.

4. Information Base needs improvement. Tied for 3rd place at 15%.

A centralized, well indexed and cross-referenced library needs to be established at the Northern Marianas College so the information needed for coastal resource management is accessible.

The library should index existing studies in the various agencies and receive copies of all research studies which take place in the CNMI, including environmental assessments, resource studies, and data. Support should be available so the library can order literature on agency request.

5. Enforcement Needs ranked 13%.

Enforcement Officers need identification badges (and uniforms).

Officers need training in what to look for, how to react, and better coordination between agencies. A training course incorporating or designing specific guidelines for enforcement actions would be one way to achieve this need.

6. Regulations. Problems with Regulations ranked 12%.

Regulations need to be applied consistently. Many examples of the process not following regulations were given. This may reflect a need to make the regulations more graphic or rewriting the regulations to conform to the practicalities of permitting.

Regulations need to be more explicit on the project evaluation process. Who is supposed to examine what and who is to provide what kinds of information.

Regulations do not mention responsibilities for clean-up of projects after they terminate or in the event of disaster.

There have been no rules, regulations, or policy formulated on such items of concern as radioactive dumping, oil spills, the military exclusion.



Figure 17. Site Location of Proposed JAL NIKKO Hotel



Figure 18. Puerto Rico Dump Site

4.0 TRAINING COURSE PHASE

Following the general seminar, the core group began an intensive two week training course.

OBJECTIVES

1. To examine how the procedures work in practice and learn techniques for project evaluation.
2. Evaluate an off island development project application (The JAL NIKKO Hotel), which was currently being processed by CRMP.
3. Evaluate an internal governmental development project (Site selection for a sanitary landfill).
4. Organize the information developed by the seminar and produce wall charts showing the project evaluation procedures for each agency.
5. The training course participants to present their findings to the executive level agency personnel at the end of the course.

SCHEDULE, SPEAKERS AND PARTICIPANTS.

A detailed schedule is presented in Appendix A along with the participating speakers. The participants were the Core Group listed in 3.2 above. Personnel from agencies and representatives of the public attended parts of the course which interested them. These people are included in the list of participants presented in 3.2 above.

TOOLS AND TECHNIQUES FOR LONG TERM DEVELOPMENT PLANNING

Bill Concepcion of the Marianas Public Land Corporation discussed the MPLC computerized land-use system development and the use of maps and map overlays for long term planning.

His main points were:

1. There is a vast amount of data available but no real coordinating effort to bring these together.
2. Maps are graphic displays of our plans. They are easy to understand and relate directly, visually, to the real conditions of the island.
3. It is easy to show how things are now and how things should be on maps.
4. MPLC has a comprehensive 2 year program on public land use which includes aerial photography, soil survey, wetland survey, and lagoon study.
5. The data will be put into a computerized land inventory system. The island is divided into cells and the land-use

information put into each cell. It will be quick and easy to update and will have a graphic display.

6. Map displays are quantitative, three-dimensional, can show time changes, can overlay features such as slopes, flood areas, critical habitats, dump sites, water recharge areas, earthquake zones even airport noise zones and so on. They are also educational and can show tourist sites or areas for historic preservation. Maps with special themes such as these are called THEMATIC maps.

7. CNMI needs a uniform mapping system with standardized scales (1:10,000 and 1:20,000).

8. Maps can be the basis for our long term planning effort and can sum up resources and carrying capacity of the land.

Richard Randall discussed remote sensing and mapping as a tool for environmental impact assessment. He summarized how he had used aerial photographs for the Saipan Lagoon Study. He said the MPLC maps are invaluable aids to project analysis. In studies of the marine environment, maps made from aerial photographs can show important biological considerations such as

sediments

current patterns

biological communities and their distribution

discharges

relationship to population centers

The process of making aerial photographic maps for environmental impact assessments is summarized in Figure 19.

Richard Cheshier talked about developments in satellite sensing and computer modeling for environmental assessment. His major points were:

1. Innovations in the microcomputer field and in satellite sensing now make it possible to do resource analysis and mapping directly from space at a fraction of the time and cost of using conventional aerial photography and land generated maps.

2. The satellite-computer technology is getting so cost effective and detailed it will be affordable by even small island countries in the coming two years.

3. Maps that now take 2 years to prepare will then take 2 days and the models will be able to predict changes in island productivity within minutes.

4. A satellite-computer technology system, called ISIS

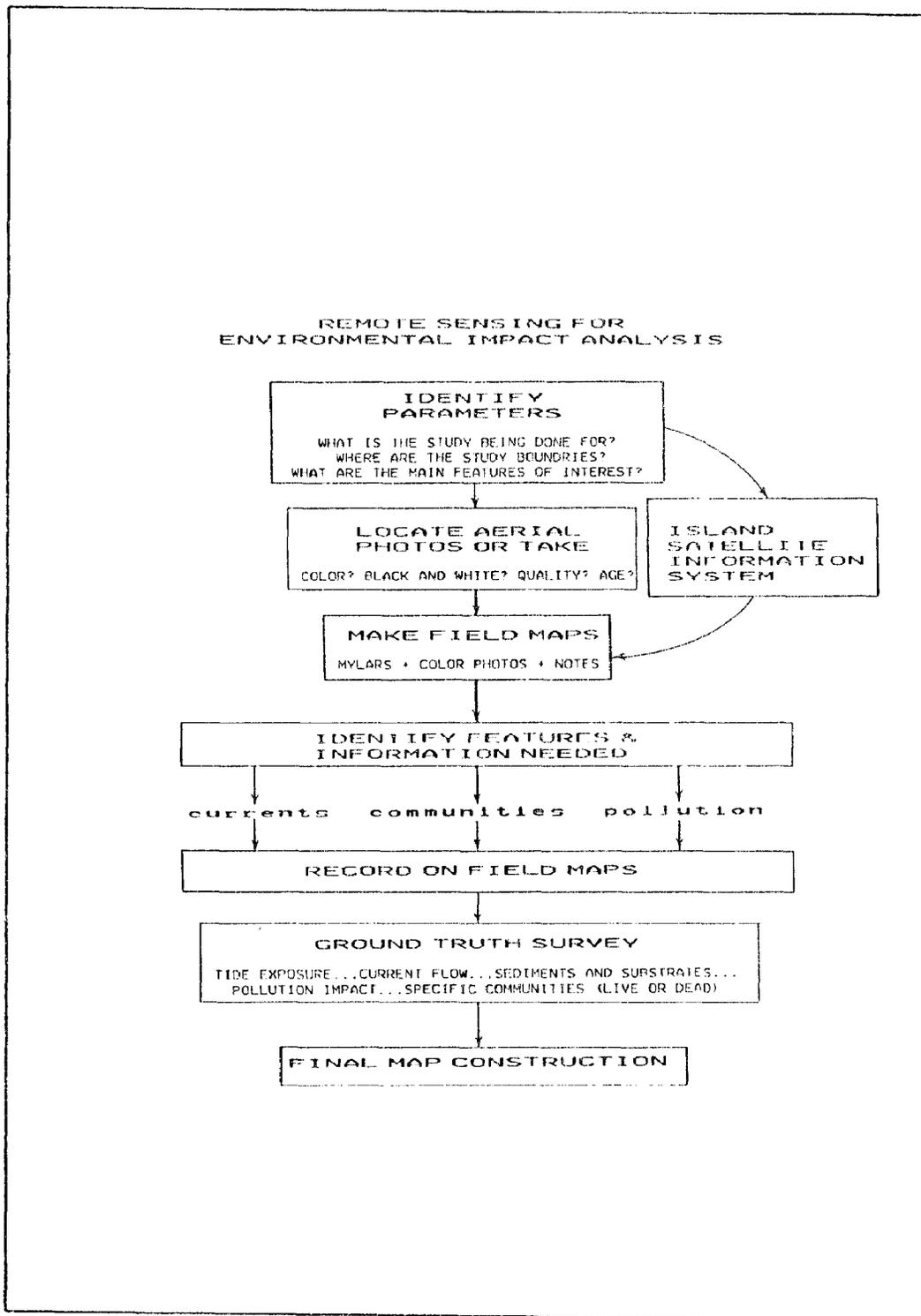


Figure 19. Remote Sensing and Environmental Assessment

2. If the EIA never actually ALTERS PROJECT DESIGN, or the conduct of the work, it is ineffective.

3. The most important parts of project assessment are:

SCREENING: Which projects need an EIA?

SCOPING: Which problems need to be studied?

Reviewing the results.

Monitoring and Enforcing the project.

Key factors to remember about the EIA method:

1. Cookbook EIA methods are no substitute for practical experience and sound judgement. Use consultants when expert knowledge is needed but not available locally.

2. Flowcharts, checklists, guidelines and matrix systems are helpful ways to keep groups working in concert. They are tools for concentration.

3. Scoping, or the identification of problems from many viewpoints, is the key element. This is followed by summation of the problems and priority listing (Figure 2).

4. The most difficult problems are usually those with the least amount of information about them.

5. Putting problems (impacts) into numerical terms yields the best results.

6. Don't try to develop alternative strategies to solve the problems until after the problems have been identified.

7. Each problem identified must be clearly supported by some case examples or direct evidence. This is called reality testing.

SCREENING

Screening is the process by which projects are sifted into easy and difficult ones. The easy ones can be handled quickly. Even some large projects can be easy if the team has knowledge and experience with the particular kind of project and the particular developer involved.

Screening usually takes place between the Project Proponent and the CRMO. Some of the questions that the CRMO evaluators need to consider in the screening process are:

1. Do we have experience with this Developer/Project?

(Note: This means the project proponent doing this same kind of project either in the CNMI or Guam or elsewhere and knowing the

outcome of the project).

2. Does this Developer/Project have experience with Saipan?
3. Does the community understand and accept the project?
4. Does the developer have sound financial backing?
5. Is the project financially feasible?
6. Is the required infrastructure available?
 - Water?
 - Power?
 - Sewer?
 - Land?
7. Do we know who the main actors are?
8. Do we know what physical actions are involved?
9. Is the flow of money clear?
10. Will the project fit in with surrounding land use?
11. Do we know what the cultural effects will be?
12. Do we know what kinds of growth and expansion the project will generate?
13. Is the information on the above questions:
 - Recent?
 - Accurate?
 - Collected systematically?

If the answer to all the above questions is YES, you know enough about the project to make an intelligent decision.

SCOPING

SCOPING is the process of defining what the problems are. SCOPING is the process illustrated in Figure 2 and was what was done during the Seminar.

SCOPING is best done in a workshop with the project proponent, and the CRMP technical and professional people. Ideally the public should be involved at some point in the scoping workshop.

Between the Screening and Scoping meetings as much information and background data is put together as possible. This is the first topic of discussion at the workshop. This DEFINES the PROJECT in terms of the goals and proposed steps to achieve these goals. This normally involves listing carefully each action which will go on during construction and operation of the project.

The team then:

1. Identifies the actors.
2. Lists the needs of each actor.
3. Determines consistencies & inconsistencies
4. Reconciles conflicting needs.
5. Lists agreed-upon needs.
6. Places needs in order of priority.
7. Selects problems.
8. Determines alternative ways to solve problems.
9. Selects strategies for problem solution.
10. Implements strategies.

TOOLS AND TECHNIQUES FOR PROJECT EVALUATION

The course examined the use of various EIA tools such as Map Overlays, Matrix analysis, Network analysis, and Simulation models. Examples of these appear in the context of the individual project evaluations below.

The participants constructed procedural charts based on the seminar discussions for the various agencies they were involved with. (see Figures 9 through 16).

A checklist of priority concerns was also designed based on the new rules and regulations.

4.1 CASE STUDY: JAL NIKKO HOTEL PERMIT APPLICATION ANALYSIS

BACKGROUND

In February of 1984, the Japan Air Lines (JAL) submitted a proposal to build a 350 room hotel on the lagoon shoreline near San Roque Village, Saipan. This proposal was in the process of evaluation by the CRMP at the time of the workshop and was selected by CRMO as the first case study for the training course.

EVALUATION OF REPORTS AND WORKING WITH CONSULTANTS.

Richard Randall of the University of Guam discussed the study he had coordinated for CRMO on the impact of the hotel on Saipan's lagoon. The focus of the presentation was on how consultants should be utilized by the government to gather information for project evaluation.

Using the lagoon study as a case history, a series of important considerations were elicited on how to work with consultants. These are summarized as follows:

Preliminary Considerations

1. Consultants need to schedule their activities so contact them at the earliest possible time.
2. Results will be directly proportional to the terms of reference. Be as exact as possible in what the consultant is expected to deliver.
3. Have needed information gathered into one place prior to the consultant's arrival. The consultant can waste days of project time trying to contact people and get information together.
4. International organizations often require official requests from Foreign Affairs before they can begin any work on projects.

Getting Started

1. Preliminary Meeting. If possible, have a meeting with the consultant and the project proponent and the CRM project officer. If a direct meeting is not possible, contact by phone or mail. Information useful for this meeting will be:

Time limits

Funds available

A detailed statement of the problem

A list of questions you need answers to (in numerical terms if possible).

As much information as available on the details of the project.

A list of related studies which have already been done.

2. If you do not know exactly what needs to be done or the true nature of the problems, the consultant may need to prepare an assessment plan which will meet the needs of the circumstances.
3. Find out from the consultant what will be needed in the way of logistic support. It is generally cheaper for the government to arrange and pay for local logistic support directly.

The Proposal

1. If the consultant responds to a detailed work statement with a short proposal giving the plan of attack, costs, time-frame, and details of logistic support, the consultant normally absorbs the cost of preparation of the proposal.

If, however, the consultant is to develop an assessment plan the cost will often be met by the contracting agency and a preliminary letter contract may be written to cover these costs.

2. Be sure the proposed work will give you the answers you need. This is best accomplished by supplying the consultant with good objectives (terms of reference) and then looking for these in the proposal. Are the objectives you provided clearly presented in the proposal? If the proposal is not clear the report will also be unclear and perhaps irrelevant.

3. What specific products will be produced? How many copies will be provided? What form will the data be presented in? References to previous studies which the consultant has conducted should be included in the proposal and, if possible, a sample provided for your review. Is this what you need?

4. It will be helpful to ask the consultant to provide a list of the kinds of information needed on arrival and people who need to be contacted during the investigation.

5. A schedule of dates for project steps should be given in the proposal so you can plan for the final review of the research and its use. If you want to review a preliminary draft report, say so at the start.

6. If the project requires specific information from the applicant, be sure the research proposal lists the questions clearly so the applicant can provide answers.

Field Research Stage

1. Provide a project officer to assist the research people and make reservations for hotels, vehicles, boats, needed equipment.

2. Assemble maps, project details, related information and an office or work area (if needed).

3. Field research may provide an opportunity for staff training and the project officer should be detailed to work with the research staff if possible.

4. The project officer should keep accurate notes and write an independent report on the project for future reference.

5. If specimens are to be collected, be sure to arrange for a duplicate set of labeled specimens to remain on island. Literature which the research team may bring along should be examined and catalogued and obtained if possible for the research library. The scientific staff should be asked, in advance, to bring any reprints of related publications which they might contribute to the research library.

Analysis of Reports

1. Reports rich in figures, graphs and diagrams are easier to evaluate. Ask for them in advance.

2. Reports should concentrate on problem areas, not on well known and irrelevant items.

3. Regard with suspicion unexplained or complex data manipulations. For example, the economic section of the M&E Hotel Nikko Environmental Assessment report (M & E Pacific, 1985) uses a "Leakage factor of 0.8" and a "visitor expenditure multiplier of about 1.2" without explaining how these were derived or even which of several kinds of multipliers is being used. As this directly controls the level of economic benefits which may be expected from the project it should be explained or referenced.

4. Mentioning something about the environment is not providing an analysis of the linkage between a project and the factor being considered. For example, the M & E report discusses natural hazards such as tropical storms and typhoon but fails to discuss the fact that part of the project site is in a flood plain area or how that fact will be dealt with in the design of storm drain systems. Nor is the vital question of the point discharge of storm water run-off considered.

5. Two helpful questions to ask for each part of the report are :

How does this fact relate to the project? (Or, So What?)

How was this determined? (or, Says who?)

6. Reports with numerous pages of information which leave the above two questions unanswered must be regarded as superficial. In this case, the report should be examined for places where there is very little information as it is here that major problems are likely to be hidden.

EVALUATION OF PROCEDURES. NIKKO HOTEL

The files concerning the application process of the NIKKO Hotel reveal that the first announcement of the project was a published article in the newspaper appearing on 29 September 1984. In fact, it seems that the hotel project was generally known to be there were rumours about the hotel project some time before that.

The first formal contact between CRMO and the project proponent was on

the 15th of October and this was followed by a series of meetings between the project proponent and various members of the CRMP during January and February of 1985.

Project documents were prepared and funds spent by the developer for design work well in advance of the first meeting with CRMO. Some of this initial work had to be scrapped following the first meeting and was a waste of time and money for the project proponent.

During the training course, an international magazine was circulating with an article which stated the NIKKO Hotel project had been approved and was to begin construction shortly. This was well in advance of approval and although the project was probably going to be approved, its premature public announcement was improper.

An interesting (perhaps parallel) case developed during the training course. On the 24th of May, a local newspaper carried an article on a \$115 million dollar hotel development to be built on Saipan (Figure 20). The article quotes the developer as saying, "Necessary government approvals have been obtained." Yet the U.S. Army Engineers had not been informed of the project nor had CRMO. Parts of their proposal will require serious consideration; particularly the construction of a 100 boat marina on the windward side of the island. CRMO was concerned that the developer will waste a great deal of money trying to design the resort and marina without proper input as to the difficulties involved.

CRMO attempted several times to contact the developer when the party was on Saipan but they refused to come and meet with CRMO. Why?

The developer knew perfectly well no government approvals had been given. It is also likely the developer's engineers realize the marina is unlikely to be built. Financing of the 115 million dollar project no doubt requires government approvals and the marina, although technically impractical, is an excellent selling point to gain investment interest.

The strategy, therefore, is to let the press and international magazines tell the story confidently and thus help achieve an early input of funds to the project.

The marina would continue on the artist's rendition of the project as long as possible and the developer will argue strongly in its favor. The marina, however, is probably a throw-a-way negotiating point. When the CRMP or the Army Engineers refuse to allow it the developer can reluctantly give it up and tell the investors the government (unreasonably) refuses to allow it.

This achieves three objectives for the developer. The investor's funds are by then completely committed and the project on its way. Secondly, the government has been so occupied with this aspect of the study the rest of the project will seem "easy". Third, after being turned down on this "essential" point the developer can apply political pressure to push the permit through without further delays or difficulties.

\$115-M hotel in Laulau up

HONOLULU (AP) — A Hawaii architectural firm, a Honolulu developer and a Saipan businessman are joining forces to develop a \$115 million resort at Saipan's Laulau Beach.

The 304-acre resort would include a 600 room luxury hotel, 18-hole golf course, tennis courts and a 100-boat marina. It would also have convention and banquet facilities, atrium, restaurants, shops and sealife-stocked waterways.

The resort is expected to employ people when completed.

The resort was designed by Architects Hawaii, Ltd. The developer is Robert P. Cutshaw of Honolulu, along with Antonio S. Guerrero of Saipan. The contractor has not yet

been selected.

Necessary government approvals have been obtained, and the U.S. Department of Interior has been supportive, said Cutshaw.

"They want to see these Pacific islands get off the dole, and they've targeted Saipan as one of the first to become self-sustaining," Cutshaw said.

Saipan is less than 1,000 miles south of Japan, which provides about 80-90 percent of its tourists, Cutshaw said. The island is about 14 miles long, and four miles wide on average. It is an United States commonwealth under U.S. trusteeship mandated by the United Nations following World War II.

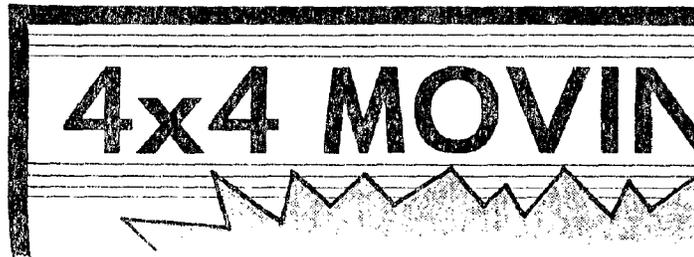


Figure 20. Newspaper Announcement

Negotiating strategies such as this are common practice. The CRMP hope of having an early and useful preapplication meeting is thus not realized because of developer needs which are never openly stated and only indirectly related to events on Saipan.

The JAL Nikko Hotel proposal was submitted in two parts; the construction phase submitted on the 28th of February and the Hotel phase on the 11th of March.

A public hearing was set for and conducted on the 11th of April at the San Roque Elementary School. This was well attended and the comments from the public hearing and from the CRMP officials were included in a letter requesting more information on the 30th of April.

JAL replied on the 17th of May and the directors of CRMP met on the 24th of May at which meeting they decided more information would be needed on several items including the sewerage and storm-drainage.

The workshop tried to fit these events into the procedures as given in the rules and regulations and summarized in Figure 8. There was little correlation. The public hearing, for example, is to be called after the project application has been declared complete and yet it was held as part of the analysis procedure to determine if the application was complete or not (a step which seems wise).

Secondly, it seems the majority of the project evaluation took place within and between the agencies during the preliminary phase, even before the submission of the application. The Randall study, for example, was begun in September of 1984. Numerous meetings took place between the developer's consultant (M&E Pacific) and the members of the CRMP during the preparation of an expensive Environmental Assessment Study which was completed before the application was submitted.

The procedural regulations, on the other hand, show the project evaluation process going on after the application has been declared complete.

The net result is that the process which is being followed is not the one which was envisioned by those who wrote up the procedures.

The actual process is probably more practical and it is often practice which should determine the procedure. Naturally any system needs flexibility, but the existing one includes quite a lot of wheel spinning and wasted effort.

A more streamlined and perhaps more workable system is presented in Section 5.1 below.

NETWORK ANALYSIS AND SITE VISIT TO SAN ROQUE VILLAGE

The group designed a network analysis of tourism impacts (Figure 21) as a general guide for the site visit. Al Hockett of the Department of Public Works accompanied the team and discussed various aspects of the project.

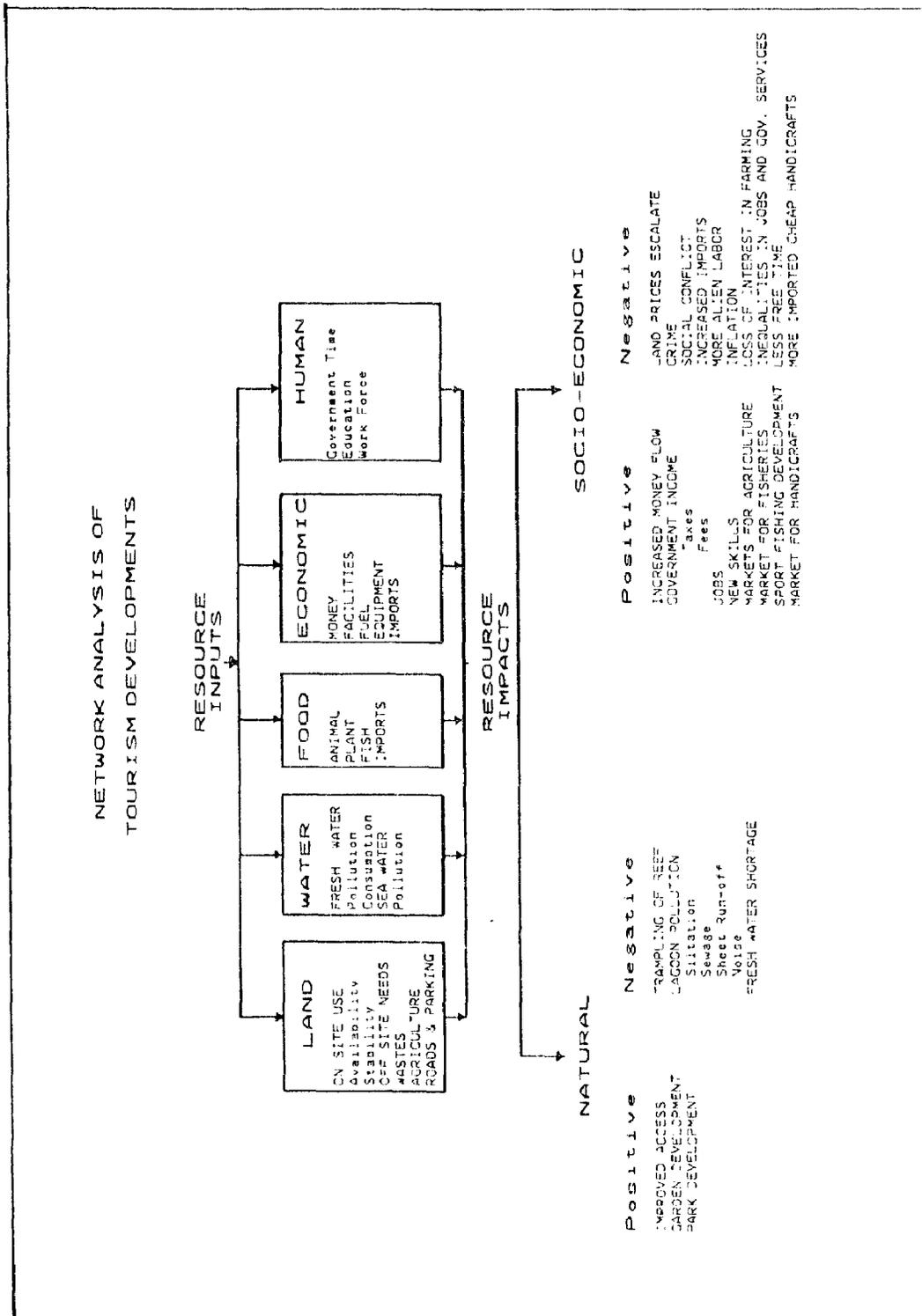


Figure 21. Network Analysis of Tourism Developments

The site visit was a vital part of the evaluation procedure as all the paper findings take on a new significance (or irrelevancy) when faced with the reality of the island, the village, the soil and beach configuration.

Such things as the volcanic nature of the watershed area behind the project site and the natural run-off berms which are located between the project site and the lagoon are immediately evident. The relative wind conditions and the lagoon characteristics were also noted.

Problems with the proposed storm drainage plan became evident when looking at the land gradients.

WORK GROUPS CONSIDER RESOURCE REQUIREMENTS.

Based on discussions before and during the site visit, the core group followed the process outlined in Figure 16 to establish some of the resource needs and project concerns.

SUMMARY OF RESOURCE CONCERNS FOR THE JAL PROJECT.

1. WATER.

The amount and the quality of water available to the hotel is a matter of primary concern. Discussion with Pedro Sasamoto indicated the problem will mostly impact the hotel itself but there is a danger that the hotel may deplete the Achugau Spring which supplies San Roque Village.

Brackish well water is available via the hotel's proposed well and the concept of using a reverse osmosis process to make this water potable is probably the hotel's best route. The Hilton has tried this, however, and had major problems keeping the system operable. The underground rain catchment tanks may also be valuable to the hotel's water supply.

2. POWER

The question of the conformity of transformers and other hook-up problems result in additional government costs. Concerns over the ability of the power plant to provide the additional load were discussed.

3. SEWAGE

If the Hotel hooks up to the main sewage plant (as is presently proposed), will the facility be able to handle the additional load? At present the answer is no.

A new facility is scheduled for completion by July of 1986. Will this really be completed by then?

The expanded sewage system will discharge a much higher load of sewage water which has received only primary treatment into the lagoon not far from Microbeach. What will this do to the water

quality in the lagoon? There are already water quality violations in the area of the present discharge.

Hotels discharge wastes from people who have recently been in many different areas of the world. The kinds of disease organisms including viruses which survive in sea water and in fish are numerous and virulent.

What will be the impact of the additional nutrients into the lagoon system?

4. DRAINAGE

The hotel is to be sited on a known flood plain. The storm drainage plans seem to be unrealistic considering the local topography. Assuming the land grading can be accomplished according to the proposed plan, details on recharge rates at the bottom of the rain-catchment basins must be provided.

Excessive point discharge of storm water run-off into the lagoon must be avoided. The project will eliminate a large, diffuse, natural seepage area which presently reduces the run-off into the lagoon. Storm water must be routed into other seepage areas or into seepage pits of sufficient size to prevent excessive lagoon degradation. The proposed "government drainage ditch" should not be trenched through the beach.

Concern over difficulties with right-of-ways and construction time for the proposed government ditch need to be satisfied.

5. SILTATION

Placement of the siltation berms and pits are stated to be "as needed" on the plan. This could be carefully worked out in advance. Clearing and grubbing activities should not begin during the rainy season. May to June is a sensitive time for the fish populations of the lagoon. Juvenile rabbitfish (Siganus spinus) and juvenile goatfish (Mulloidichthys flavolineatus) are common during these months and are sensitive to siltation.

Much of the area has a clay soil which could, if eroded during the rainy season, clog seepage areas and thus be more likely to cause sheet run-off into the lagoon. Clay soils have been shown to have serious impact on the lagoon (Randall, personal communication).

The thickness of the clay-soils make it possible that heavy equipment might become inoperative if the cleared areas were subjected to prolonged and heavy rainfall. This would create a long-term siltation problem for the lagoon as well as economic hardships on the contractor.

Proposed alterations of the shoreline associated with the entrance and exit of the proposed artificial lagoon will create problems in beach erosion and sand supply down-stream (southwest) of the project site. The continual maintenance required to keep the

proposed channels open and the beach in place will create long-term siltation problems for the lagoon.

6. ENFORCEMENT

Consideration needs to be given to the financial responsibility in case of accident or storm damage. Who, for example, will pay clean-up costs if the hotel burns or is left incompleated.

7. LAND USE

The hotel will increase the demand for farm-land in two ways; first because part of the project is on prime farm land and this will be lost. Second, additional farm land will be needed to supply food materials to the hotel. The latter impact may be favorable if the farms take advantage of the opportunity.

If farmers are appraised of the types and quantities of food needed, they can begin preparation to provide these.

Fishermen should be thinking about the developement of a "Saipan Specialty" item for the resorts such as flying fish.

Saipan should give priority to developing the sport-fishing industry as a tourist activity. Deep water bottom fishing and trolling could both be exciting money makers. The hotel could discuss the kinds of vessels and activities which would be most successful and advertize sport fishing as a major attraction of Saipan. Sport fishing has a minimal impact on local fisheries and a high dollar value.

8. GOVERNMENT TIME

Government personnel are already overworked and unable to give proper attention to the many tasks facing CNMI. The hotel will strain the system still more, especially in providing services and machinery. This is an unavoidable impact which will hopefully be compensated for with taxes.

9. SOLID WASTES

Solid wastes are presently a serious problem for Saipan. The Hotel should be advised that new regulations on solid waste are being prepared and it would be helpful if the hotel could practice good solid waste disposal practices from the start. This would include separating solid wastes into the following categories:

Organics and leafy wastes to be placed in a mulch pile for making soil (perhaps on a part of the hotel's farming area).

Burnable materials.

Aluminum cans should be bagged for recycling.

Construction materials & clean fill to be used in special

parts of the Puerto Rico Dump as directed.

Brush burned during the construction activities must be contained in the designated areas and precautions against the fire spreading taken.

Refuse from field toilets must be disposed of according to conditions set forth by DEQ.

SUMMARY OF SOCIO-ECONOMIC CONCERNS

1. CRIME

Workshop participants listed the increase of crime as the most disturbing impact from the rapid increase of tourist development on Saipan. Theft, assault, and prostitution were examples given. The group felt the increase in crime was due, in part, to cross-cultural misunderstandings and poor public instruction on the need for visitor hospitality.

PROPOSED MITIGATING ACTION: Marianas Visitor Bureau and Hotels to develop more cross-cultural interchanges. This might take the form of tax-free contributions to island charities, donations of books on Japan and its culture to schools, friendly sport activities on the Hotel site between residents and staff, participation in local festivals, art shows, etc.

2. JOB INEQUALITY

Ranking the same as crime, job inequality is the fear that the hotel will discriminate against local employees, either by not making jobs available or by paying local workers less than off-island recruits.

PROPOSED MITIGATING ACTION: JAL to provide a list of employment needs including:

Job descriptions

Qualifications needed

Pay scales for each position

If this can be done at the start of construction and the information given to DC&L, the Dept. of Education and the Northern Marianas College, residents will have the opportunity to plan ahead and acquire needed skills before the hotel begins operations.

3. LAND VALUES

Land prices have already gone up in the vicinity of the proposed hotel. As new hotels are built, land values will increase to the point where most young residents will be unable to obtain land for their homes or farms.

There is no obvious way to alter this impact.

4. LOCAL BUSINESSES MAY NOT BENEFIT

This complex economic impact centers on the hotel bringing tourists on a "tour" basis within which the tourist dollars are committed in Japan and very little is spent outside the hotel or its direct associates. Some tours even include all meals and coupons for purchasing items in approved stores.

Data on leakage and multipliers in the EIS is not documented or explained. The cash flow needs to be much more clearly outlined. Even room rates are not clearly set out, and concern for price juggling to reduce room-taxes was expressed by members of the course.

MITIGATING ACTION: A more detailed economic explanation of the JAL proposal should be discussed between the developer, the Saipan Chamber of Commerce, and the Department of Commerce and Labor.

The hotel could provide information to local businessmen or even short training courses on what Japanese tourists do and do not like. Even an understanding of the Japanese need for clean and neat business premises could turn a business liability into an asset for both the hotel and the craftsman or business people.

Japan has many superior artists and craftsmen. Perhaps the hotel could hold craft-training workshops for Saipanese.

The Marianas Visitors Bureau should design a tourist questionnaire to be given to arriving guests and collected upon departure. This would provide valuable feedback from the tourists about what kinds of craft items they bought or would have liked to buy and could guide craftsmen in their efforts. Also, valuable feedback would be obtained on other areas of tourist needs.

5. GOVERNMENT SERVICE INEQUALITY

This is the difference between the luxury hotel with good water, sewage, drainage and the next-door community without these services. The concern is that the community will continue with its present infrastructure problems and the hotel will simply mean an influx of additional residents into the village (in the hope of living close to the hotel). This will add further loads on the infrastructure of the area.

An expected outcome would be stress (and crime) between the hotel and village people.

MITIGATING ACTION: The government must adjust its priorities to take full advantage of the construction activities and improve community services along with providing services to the hotel. The hotel has indicated it will (might) install a sewer line and DPW should find the time and funds needed to hook up local

residents to this line during construction.

6. TRAFFIC

Another conflict will come from increased traffic through the village. San Roque is divided in half by the main road and children cross frequently. The hotel can help by providing driver safety instructions to guests and employees who drive cars or busses. Pedestrian crosswalks should be installed and rigidly enforced.

7. CROSS-CULTURAL EXCLUSION

Residents will tend to stay away from areas inhabited by groups of tourists (unless they are trying to sell the tourists something). Social exclusion violates the right of free access to the beaches. Fishermen will be hesitant to use their nets in developed areas.

MITIGATING ACTION: Cross-cultural exchange and a little friendliness can help to resolve this problem.

8. MARKET VARIABILITY

This is divided into two categories: seasonal variation of tourist arrivals and variations caused by changes in favored tourist destinations, sales campaigns, or economic trends.

MITIGATING ACTION: The hotel could provide the M.V.B. with "Visitor Forecasts" so the island could be prepared for highs and lows of income.

9. DISEASES

This is an unavoidable hazard of vacation spots.

The constant influx of new viruses and disease organisms can be expected to cause continual loss of productive time and an escalating cost of treatment. As there are no realistic mitigating actions, this must be considered a liability for the project.

10. TOURIST EXPECTATIONS

Tourists arrive in Saipan with a set of expectations. These are obtained by advertising styles used to attract them to the island. Advertisements may give unrealistic expectations and disillusioned visitors are unlikely to return.

MITIGATING ACTION: Some visitor expectations can be accommodated with a little effort and advanced warning. The M.V.B. should receive copies of all advertising materials used to sell Saipan and the other CMNI.

The M.V.B. should then provide advice to the business community about how Saipan is thought to be so efforts can be made to

maintain this image (as long as it is reasonable and in line with local desires).

FEDERAL INVOLVEMENT AND CONCERNS

Frank Dayton of the U.S. Army Engineers (Guam) discussed the involvement of the Engineers in permitting coastal projects. He pointed out that the Engineers have done numerous studies in the CNMI and would be glad to assist CRMP in the event special expertise was needed for a specific project evaluation.

An Army Engineers permit is required for any dredgeing or filling activities (as proposed by JAL) and they will not grant permits for such projects until after the CRMP permit has been granted.

We discussed the proposed artificial lagoon concept of JAL and he expressed concern over many aspects of it, especially the problems with sand movement at the entrances.

WATER, A SPECIAL CONCERN.

On May 30, the course participants were given another example of cooperation by the U.S. Army Engineers at a workshop on the water problems of the island.

In addition, Pedro Sasamoto, the federal coordinator for water projects in the governor's office, discussed water with the participants.

Water is one of the major limiting resources of Saipan and needs to be given priority consideration in all development projects.

THE PUBLIC HEARING

Course participants discussed the transcript of the public hearing and discovered that several major points were raised which were, in fact, included in the April 30th letter from CRMO to the project proponent.

It seems the public hearing did have good attendance, participation, and that the public was influential in the process.

THE APPLICATION FORM.

The workshop examined the permit application forms which the applicant had filled out and found that many questions were improperly answered. The group decided that this was often a problem in the way the questions were worded. Some of the questions were, in fact, not very good ones and the answers reflected this.

The group worked on the rewording of the application form and directed its efforts towards designing an application form as guidelines for supplying information to the CRMP.

An example of the group's efforts is given in Appendix A.

The participants concluded that the application form should ask

questions which included a brief statement as to why the information was required. This allows the applicant to answer more exactly and even to reconsider the planned action during the writing of the application.

Secondly, questions which ask for numbers or explicit data and for drawings, graphs and maps were found to yield the best answers while generalized questions such as "describe environmental impacts including any air, noise or water pollution" tended to have generalized and uninformative answers.

SETTING CONDITIONS FOR PROJECT PERMITS

Each permit has conditions written into it. The group worked on conditions for the JAL permit using those from the Department of Natural Resources as an example.

The DNR conditions were:

1. During construction and maintenance, sedimentation from run-off not to exceed ambient turbidity levels by more than 20%.
2. During May to June, Sediment levels not to exceed ambient levels due to sensitive juvenile fish in the area.
3. Storm drainage system to be kept free of trash.
4. No discharges of wastes or waste water into the lagoon or the storm drain system which then flows into the lagoon.
5. A tourist educational program (perhaps displays, pamphlets, posters) to be included in the hotel operation to assure tourists do not damage the lagoon and reef through collecting of specimens of coral or trampling.
6. The hotel to supply DNR with approximate quantities of sea foods (available locally) expected to be consumed during operation.

The group then decided to examine the permit conditions which had already been written for the Diamond Hotel permit as an example of the way they are written now and how the condition terms might be improved.

This suggestion proved beneficial as the group was able to play an editorial role and compare before and after wording to see which style would be the most useful to all parties.

EXAMPLE:

Existing Format of Conditions

"Condition A: The applicant will work closely with the Department of Public Works to design and construct the sewer lift station and the emergency power hook-up for the lift

station.

Condition B: The applicant will work closely with the Department of Public works and the Saipan Utility Agency to assure that the proper power requirements are satisfied.

Justification A and B: Due to the current capacity problems with the sewer lines and power generation, it is imperative that the Department of Public Works be informed of the hotel's utility needs and design considerations.

The terms "work closely" and lack of quantitative information can lead to difficulties for both the applicant and the government. It was also felt that "Justification" was not really needed but could be incorporated into each condition as clarification if useful.

Revised Version:

A. The existing lift pump for waste water removal needs to be enlarged to accommodate the projected hotel sewage discharge.

1) The new lift pump, with installation, will cost \$125,000. The Department of Public Works will purchase and install the unit within three months after construction start-up. Funds for the lift pump must be paid to the government 60 days prior to construction start-up.

2) The applicant may install a lift pump of 80,000 GPD capacity according to specifications and direct supervision of DPW if the conditions indicated in 1, above are not satisfactory. The lift pump must be operational prior to operation of the hotel.

3) In either case, the applicant will be responsible for hooking up their emergency power generator to the lift pump for operation during any power outage.

4) The applicant will, within 30 days, provide a complete breakdown of power needs, anticipated electrical utilities to be included, surge levels on start-up, and specifications of transformers which DPW will require to hook up power supplies.

Water will probably always be a problem on Saipan and CRMO will be writing conditions about water into many permits. It would be helpful if a set of water guidelines were drawn up to be used for permit conditions. Thus, the water condition part of the permit should give more explicit information to assist the applicant.

B) Fresh water supply is a continuing problem for Saipan. The hotel anticipates using some 70,000 gallons of water per day. It is essential that this figure not be exceeded in good conditions and it will probably have to be severely cut in times of low water supply.

For Example, in 1982, a prolonged drought resulted in water rationing on the island. This can be expected, to a greater or lesser degree, during most dry seasons (from December to May). In addition, if the power fails, as it did XXXXX times in the past year, there is no power to the water pumps and reserve water must be kept on hand if the hotel is to have water for its customers and for fire fighting needs.

1) Water conservation. The hotel will appoint a permanent water conservation officer from its staff. This officer will see to it that water is conserved at all times and will head a program that will include:

Signs encouraging water conservation in the rooms

Weekly leak inspections

Staff instruction on identification of leaks, turning off any taps in the hotel rooms, water conservation during work activities, especially in the kitchens.

2) Water Reserves. The hotel will build and maintain a 200,000 gallon water tank for emergency use. This tank will never be allowed to be less than half-full as a reserve for fire-fighting.

The tank will be fitted with suitable outlets, pumps, plumbing, hoses, etc. for fire fighting in the hotel.

In addition, fire extinguishers will be located in appropriate locations where the water hoses do not reach. Specifications for fire extinguishers and their location will be submitted to CRMO 30 days prior to the hotel's operation.

4.2 SITE LOCATION OF SANITARY LANDFILLS

The second project chosen by CRMP for evaluation during the workshop was a governmental one; where to put the new sanitary landfill and what to do with the existing dump.

BACKGROUND

Two studies had already been done on this problem, both by the Guam consultants Duenas and Swavelly (May 1984 and August 1984). They proposed ten sites for the new Saipan Sanitary Landfill on the basis of three criteria:

1. Suitability of the site for landfilling operations in terms of topography, general geology, environmental compatibility and Saipan land-use planning considerations.
2. Marianas Public Land Corporation lands that are not irreversibly programmed for a conflicting use. (This criterion was expanded to include private lands where owners may be agreeable to a land exchange negotiated by MPLC).
3. Reasonably good access by existing roads and nearby infrastructure.

IDENTIFICATION OF CONCERNS

The course participants began by listing the major impacts which could be expected from the landfill activity. These, in order of priority, turned out to be:

1. Contamination of the ground water lens. Leachates from the materials put into a limestone landfill can be expected to migrate downward into the groundwater. An example was given of the contamination of a well area on Guam following burial of war materials after the war. The water from that area still has a bad taste and odor today. Since water is a critical and limited resource on Saipan, this impact was the primary concern.
2. Air Pollution was the second concern. The landfill area, ideally, will be sanitary and relatively free of objectionable smells. Realistically, however, most landfill areas do smell bad and often have fires. The prevailing wind directions and location of residential and commercial areas thus was considered in the evaluation.
3. The third highest priority requirement was distance of the site from population centers. If the distance is too great the public will probably practice illegal dumping even more than they do now. In the event the site must be placed at a great distance, the government will have to provide a collection service.
4. Since tourism is the major industry of Saipan, the fourth priority was Scenic considerations. The site would have to be relatively inconspicuous.

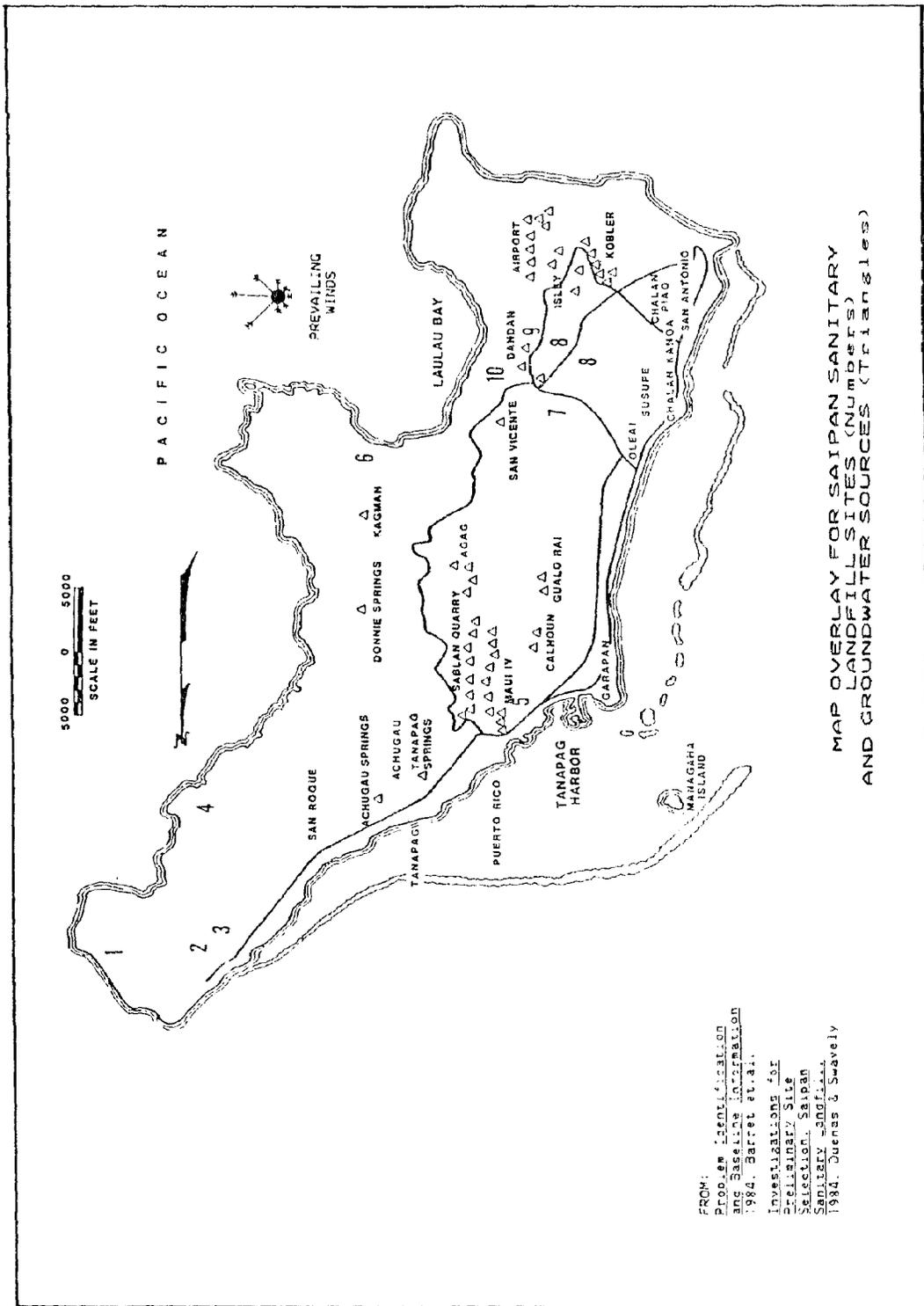


Figure 22. Map Overlay for Landfill Sites

5. Compatibility of the site with surrounding land use was fifth priority. Agricultural use was considered compatible, residential use not compatible.

6. Size of the site was the next consideration.

7. Ownership was the last consideration, with MPLC land having a higher priority than private land.

MAP OVERLAY

Priority concerns over Water and Air pollution were quickly made graphic using a map overlay technique (Figure 22). Four of the sites were immediately disqualified as being located within important ground water resource areas and likely to contaminate well water.

These were sites 5 (The Puerto Rico Depression), 7 (Hospital Quarry), 8 (Hoyon As Lito Depressions), and 9 (As Lito Quarry).

Some of these sites had other problems as well. Site 8, for example, is now a residential, farming area on private land.

Site 7 has a scenic impact and is upwind of many homes and businesses.

But the water contamination impact alone was considered too great to allow these sites to be used.

MATRIX ANALYSIS OF IMPACTS

A Matrix was constructed showing the impact of each of the sites on each of the concerns (Figure 23). Water contamination potential, air pollution, and scenic impacts were given priority ratings of High, Medium, Low Impact. X was used to mean unacceptable risk.

The distance was measured in miles from the existing dump but this measurement probably should be redone from the mean population center (s) of the island.

SITE VISITS

After the Matrix was drawn up, the team visited the sites to fill in the data on the matrix. During the site visits various aspects of the site were discussed and general impressions of the participants added to the evaluation process.

IDENTIFICATION OF SITES AND ALTERNATIVES

The results of the site visits were discussed and then the workshop method in Figure 16 used to "vote" on the best sites and alternatives.

The result was a recommendation to develop three different sites for different purposes.

1. Site 1, the Marpi Depression, was selected as the best overall

ENVIRONMENTAL MATRIX ANALYSIS

Saipan Sanitary Landfill
Site Selection

SITES	IMPACTS		WATER CONTAM.	AIR POLLUTION	DISTANCE (miles)	SCENIC	LAND USE	SIZE (Cvds x 1000)	OWNERSHIP
Marpi Depression	L	L	8	M	Agf	900	MPLC		
Marpi Quarry	M	M	5	L	Qry	400	MPLC		
San Roque Hillside	M	H	5	H	Agf	---	MPLC		
Kalabera Depression	L	L	10	L	Agf	240	MPLC		
Puerto Rico Depression	X rejected								
Kagman Quarry	L?	L	6	L	Agf	750	MPLC		
Hospital Quarry	X rejected								
Hoyon As Lito Depressions	X rejected								
As Lito Quarry	X rejected								
San Vincente Depression	L?	L	3	L	Res	720	PRIV		

IMPACT

L = Low
M = Medium
H = High
X = Unacceptable

Figure 23. Matrix Analysis of Sanitary Land-fill Sites

site and should be used for commercial wastes and wastes picked up by commercial services. It is large, out of the way, and overlays ground water which is highly saline, is surrounded by agricultural areas now poorly developed and is owned by the MPLC.

2. Site 6, the Kagman Quarry, was selected as the best site for the general public. It is the closest acceptable site and is outside the ground water lens for the Kagman area, it is large and remote from developments, surrounded by agricultural areas now poorly developed and is owned by the MPLC.

3. Site 4, the Kalabera Depression, was selected as being the best site for hazardous waste disposal. It is remote (too far for reasonable normal disposal activities), on the rocky outer edge of the island and not over a valuable water lens, surrounded by poorly developed agricultural areas, and owned by the MPLC.

Site 2, the Marpi Quarry, is upwind of the Golf Course and would require a long climb for the trucks or cars along an unsurfaced road. In addition it is close to the inner island crest and therefore a potential danger to the ground-water supply in the area. The limestone quarry is highly porous.

Site 3, the San Roque Hillside is upwind of San Roque and the proposed JAL Hotel site and would also contaminate the ground water of the area. More importantly, the hillside site is highly visible and the landfill would create an eye-sore. Furthermore, the land commands a splendid view and its value is thus very great for future home sites. The proximity to the Golf Course increases this value.

Site 10, the San Vicente Depression, is privately owned and its impact on the groundwater is uncertain. It is close to the village and close to residences.

CLOSURE OF EXISTING DUMP

When placed on the matrix, the existing dump site scored very well. It does not contaminate ground water, has a low impact on air pollution, is very close to people and well used, it is hidden (now) with trees and is located in the industrial/port zone. It is an active dump and there is still room for expansion.

The primary objection to the present location is the impact of the litter (mostly plastic and paper) which blows off the open dump into the lagoon. After a major storm, the beaches were said to be covered with debris, some of it originating from the dump.

Inspection of the area showed the dumping to be almost entirely uncontrolled. The public does use the site but simply throws the trash onto the ground. Sometimes it is burned. Paper goods do blow off the dump into the lagoon. The dump is clearly a "Lagoon Fill" operation and has covered marsh and shallow flats, extending out towards the old ruins of a World War II wharf. The steel pileings of this wharf form an unsightly and useless projection into the lagoon (Figure 18).

The location is a part of the Saipan Port and there is deep water for ships on the exterior of the steel piles. As such it is a highly valuable asset to the island if cleaned up and rebuilt as a wharf, industrial area.

A permit is now being considered for a basalt crushing plant on part of the dump site and wharf reconstruction will have to accompany that development. In addition, a liquid gas storage facility is planned for the area.

If the steel piles were filled with clean rip-rap, cement, rocks, pipes and capped with cement. The remaining area behind this could then be filled in with non-organic solid wastes. There is considerable volume left here, enough to last many years if only clean fill, steel and similar materials are put there.

In any event, an improved management plan is required to do anything at all with the dump. Several recommendations were made by the participants:

1. Place a chain-link 8' fence around the dump to contain wind-blown debris.
2. Enclose the area delineated by the steel piles with a berm and place a fence atop this. Then fill in the area behind the berm.
3. Use the piles and fill as a foundation for a medium-sized wharf.
4. Move existing clean fill from other areas of the dump to assist in recommendations 2 and 3, thus allowing the existing land to be cleared and reworked.
5. Divide the dump into sections as shown in Figure 24.
6. Have a dumpsite manager and at least one helper direct placement of wastes to the proper parts of the dump.
7. Realizing burning as a fact of life, construct an area with a wall and fence within which paper goods may be burned. The ashes can be added to the mulch area.
8. A temporary site should be set aside for materials which can be recycled, including glass, aluminum, brass, bronze, lead, and so on. There should also be a place for scrap cars. This material should be close to the port so it may be shipped out when enough has accumulated to make it profitable.
9. In general, a solid waste disposal plan should be introduced on the island to separate the wastes into categories as discussed in 4.1 Summary of Resource Concerns. Commercial establishments and those who use a collection service, should be made to adhere to these rules. Residents without a collection service should be encouraged to use the landfill sites and helped to sort the wastes

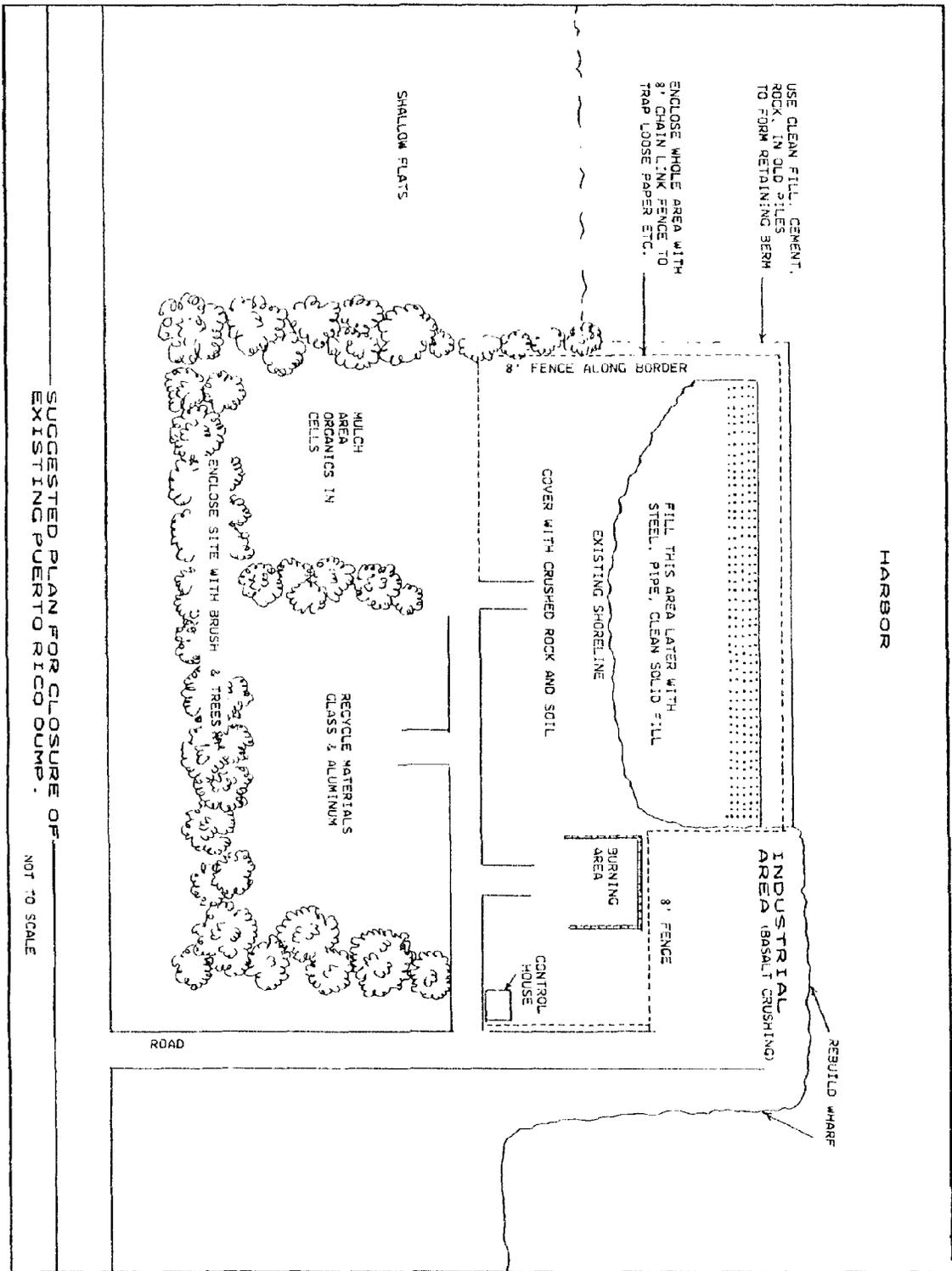


Figure 24. Plan for Closure of Existing Dump.

into appropriate categories.

10. Collection sites for aluminum cans (the most common litter problem) should be placed around the island and the government should consider the future necessity of a pick-up service.

4.3 PRESENTATION OF RESULTS

Using the Sanitary Landfill as an example, the group considered presentation of the results. An outline for the report was developed:

OUTLINE FOR ENVIRONMENTAL ANALYSIS OF THE SAIPAN LANDFILL QUESTION

1. BACKGROUND. What is the problem? What previous work has been done?

1. Solid Waste Ammounts (use graph)

2. Kinds of Wastes (pie chart)

3. Problems:

a) Contamination of Ground Water

b) Air Pollution

c) Impact on Lagoon

d) Scenic

e) Land-use

f) Distance

g) Ownership

4. Priorities

2. Alternatives

1) Use of Present Site (Time)

2) Development of New Sites

3) Management of Wastes

a) Recycling wastes

b) Sorting Wastes

c) Reducing import of wastes

d) Compacting wastes

3. Closure of Existing Dump
4. New Site Selection
5. Implementation
 - 1) Who's going to do it?
 - 2) When will it be done? Use a Gantt Chart to show this (Figure 25).
 - 3) Evaluation, Monitoring and Enforcement
6. Conclusions and Recommendations

OUTLINE FOR AN ENVIRONMENTAL IMPACT STATEMENT

The group discussed the National Environmental Protection Act (NEPA) requirements for an Environmental Impact Statement (EIS). The NEPA EIS specifications include a topic outline. We used the formal EIS on the CNMI Coastal Resources Management Program as an example of this:

- Part I. Purpose and Need
- Part II. Description of the Proposed Action
- Part III. Alternatives to the Proposed Action
- Part IV. Description of the Environment Affected
- Part V. Environmental Consequences
 - A. Impacts from Approval
 - B. Impacts from Implementation
 - C. Probable Adverse Environmental Effects which Cannot be Avoided
 - D. Relationship between Short-term Uses of the Environment and the Maintenance and Enhancement of Long-term Productivity.
 - E. Irreversible and Irretrievable Commitments of Resources that would be Involved in the Proposed Action should it be Implemented
 - F. The Relationship of the Proposed Action to Land Use Plans, Policies and Controls for the Area
 - G. Consultation and Coordination

REALITY TESTING

After the various problems have been elicited, but before the report is

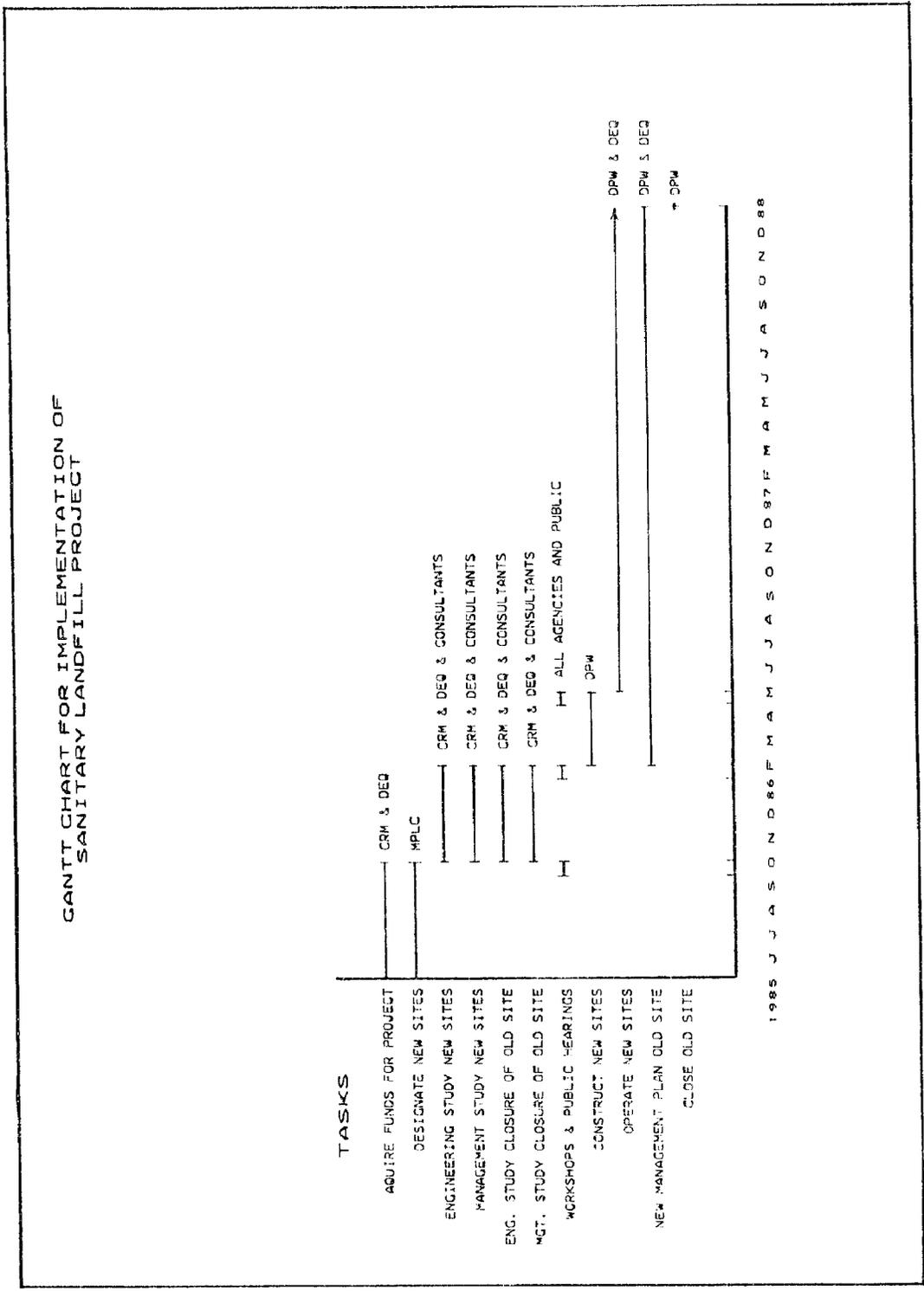


Figure 25. Gantt Chart for Implementation of Landfill Project.

written, it is best to go through a process of REALITY TESTING. Are the problems really problems?

The best test is to look at each assumption and decide how one could measure this impact. If, for example, crime increase is a suspected problem, the records of the Department of Public Safety should demonstrate this. If disease does increase because of tourism, health records will show how much.

Showing the incidence of crime (or disease) with the increase of tourism on Saipan is one step in demonstrating the reality of the problem. Second, one must show the crimes (or diseases) to be linked to the tourist industry and not due to other causes. This is done by examining the KINDS of crimes which have gone on.

The group then examined various problems and related actual examples where each had already occurred.

If at all possible, make a graph. The more graphic the presentation, the more likely people will understand the need to change directions. The greater the number of case histories and examples, the better everyone can understand exactly what the problems are.

The use of a library and of statistical records was discussed as a means of quickly getting examples together. When DNR insists that siltation will damage stocks of valuable fish on the reef, a specific example of proof of this would be helpful. References on this are available through the University of Guam.

4.4 THE IMPLEMENTATION GAP

The most critical step of all is the transition from report to actuality. Planning for a landfill site is one problem; implementing the project and its recommendations is another.

The present dump site has been a known problem for many years and the recommendations reached during this course were not new. The two studies done a year ago were inconclusive and lacked specific recommendations for implementation.

The group discussed responsibilities for getting projects going and designed a sample Gantt Chart (Figure 25) which shows who does what, when. A planning chart such as this placed on appropriate office walls is often instrumental in getting the project launched and finished.

A RESEARCH LIBRARY: An Example and A Test.

Frequent references were made to the need for a research library for the CNMI, to be located at the Northern Marianas College. How can this be implemented?

Following the management pattern of Figures 1 and 2, the group began by deciding on what the college would NEED to have such a facility.

1. Money

2. Librarians
3. Space
4. Equipment
5. Cooperation from the various agencies
6. Motivation

The first two needs seemed the most immediate and were clearly linked. The suggestion was made that the two could be achieved together if someone paid to train the librarians and they undertook cross-referencing the existing literature of the agencies as their training activity.

There are federal funds available for such an activity if there is a guaranteed job for the people once the training is complete.

This linked needs 1, 2, and 6.

Cooperation from the agencies was the key to the other needs. If the agencies asked for such a service, in concert, the college would be able to demonstrate that the library and librarians were needed and worthwhile. The college could then seek funds from the Job Training Program and seek funds from the Legislature or from the agencies to support the library and librarians in the future.

The College President, Agnes McPhetres was asked to join the group at this point to "reality test" the ideas. We asked her if she could follow such a plan if the concerned agencies requested the College to assist with the indexing of their literature. She discussed the plan and agreed that it would have a high probability of success and that she was most willing to cooperate with such a suggestion.

She explained that she had written to all the directors on the 29th of April asking that all agencies send copies of annual reports, special publications and studies or other reports to the library. Although two agencies had sent some copies of reports, she had received no direct answer to her letter. No mention of existing reports had been made.

The course participants, therefore, were to draft letters for their respective directors which answered the 29 April letter, and agreeing to participate by sending reports. A further suggestion was to be included to the effect that the Library could perform a great service by sending a librarian to cross-index the great bulk of existing reports so they could be better used by agency personnel and by visiting research people. The cross-indexed books could either be kept at the agencies (but numbered and ordered) or kept at the library if not in habitual use.

Mrs. McPhetres would take the letters and seek the required funding and personnel. The CRMO immediately advised that it would contribute funds to the project.

The participants did not complete the letter drafts during the workshop. It was left as a test of their personal responsibility to see if they got the message about problems of implementation.

5.0 SUMMARY OF RESULTS

5.1 THE WORKSHOP METHOD OF PROJECT EVALUATION

The workshop method of project evaluation worked well. The participant's comments (5.2) clearly showed that the members of the workshop felt as though they were personally involved and able to contribute to the three projects which we investigated.

Advantages and Disadvantages of working as a group were listed as:

<u>ADVANTAGES</u>	<u>DISADVANTAGES</u>
1) Rapid Answers	1) Scheduling problems
2) Clarity of communication	2) Polarized Arguments
3) More Specific	3) Irrelevancies can monopolize time
4) Assure time is given	4) Personality displays can divert
5) Many viewpoint at once	5) Need for good leadership
6) Increased Cooperation	
7) Feeling of Involvement	

The disadvantages 2 to 4 can be avoided if the group leader is experienced. The group techniques tried during this course, for example, avoided most of these problems. These can be summarized as:

The modified nominal group technique shown in Figure 16,

Constant referral to a management plan (Figures 1 and 2) or agenda

Use of Flip Charts to draw flow-sheets and to list and outline major points. This slowed down the presentation and enabled participants to think about the items and make their own notes.

Constant reference to case studies and examples to put the group back on the track if it became diverted

Site visits as a group to allow informal discussions out of a "conference" atmosphere.

Use, whenever possible of different, local interests to present information. This increased the group's knowledge about what is happening on the island and at the same time allowed the expert speaker to gain friends and influence the group. The more people involved in the group activity, the better. The speakers also benefited in the exercise by reviewing, themselves, what they were doing and why.

The problem of scheduling is not as great as it first appears if there

is advance notice and if each workshop is limited to a reasonable length of time. And, if the number of projects to be evaluated is not too great.

The advantages listed here and in 4.0 (Page 45) outweigh the scheduling problems. In fact, comments in the Seminar Phase showed that projects which were simply passed along to individuals were often not evaluated at all. The individuals have to make time to do the evaluation at some point, anyway. If each is left to themselves, other priorities might prevent getting to the evaluation until the last possible moment.

The prospect of sharing the experience also means that the participants are more likely to spend time on the evaluation even before the meeting.

The cross-fertilization of ideas which happen at a workshop is highly valuable when considering environmental impacts.

Since the objective is to include the project proponent as well as the agencies and the public in the project evaluations, scheduling a set number of workshops becomes a valuable technique. As the situation now stands, the project proponent, who may or may not be resident on the island, has to appear at odd intervals and talk with different groups and individuals. The public hearing may require that the project proponent set up a separate trip just for this, and may involve bringing several support people to the island.

HOW CAN THE WORKSHOP PROCESS BE APPLIED TO THE PERMITTING PROCEDURE?

Figure 26 shows a system for incorporating the methodology of this training course into the permitting process of the CRMP.

The system would allow considerable time savings and a simplification of procedures. In addition, the workshop system can offer incentives for the developer to come well prepared and hopefully without "negotiation strategies".

A revised application form (Appendix A) will point out the way the system works and how applicants can save themselves time and money by following the process.

The screening meeting can be used to directly process minor permits. Thought should be given to adding more projects to the minor permit program in view of the screening comments made in section 4.0.

At this meeting, the participants will set up a time for the SCOPING workshop. The developer should be told that if preparation for the workshop is good and the engineers collaborate with the agencies, there will be few problems and the permit may be issued rapidly.

To save time for the agencies and the developer, a public hearing is scheduled for the same workshop period.

The scoping workshop would have three phases and may require three days. On the first day the project proponent meets with the

**WORKSHOP PERMIT PROCESS
COASTAL RESOURCE MANAGEMENT**

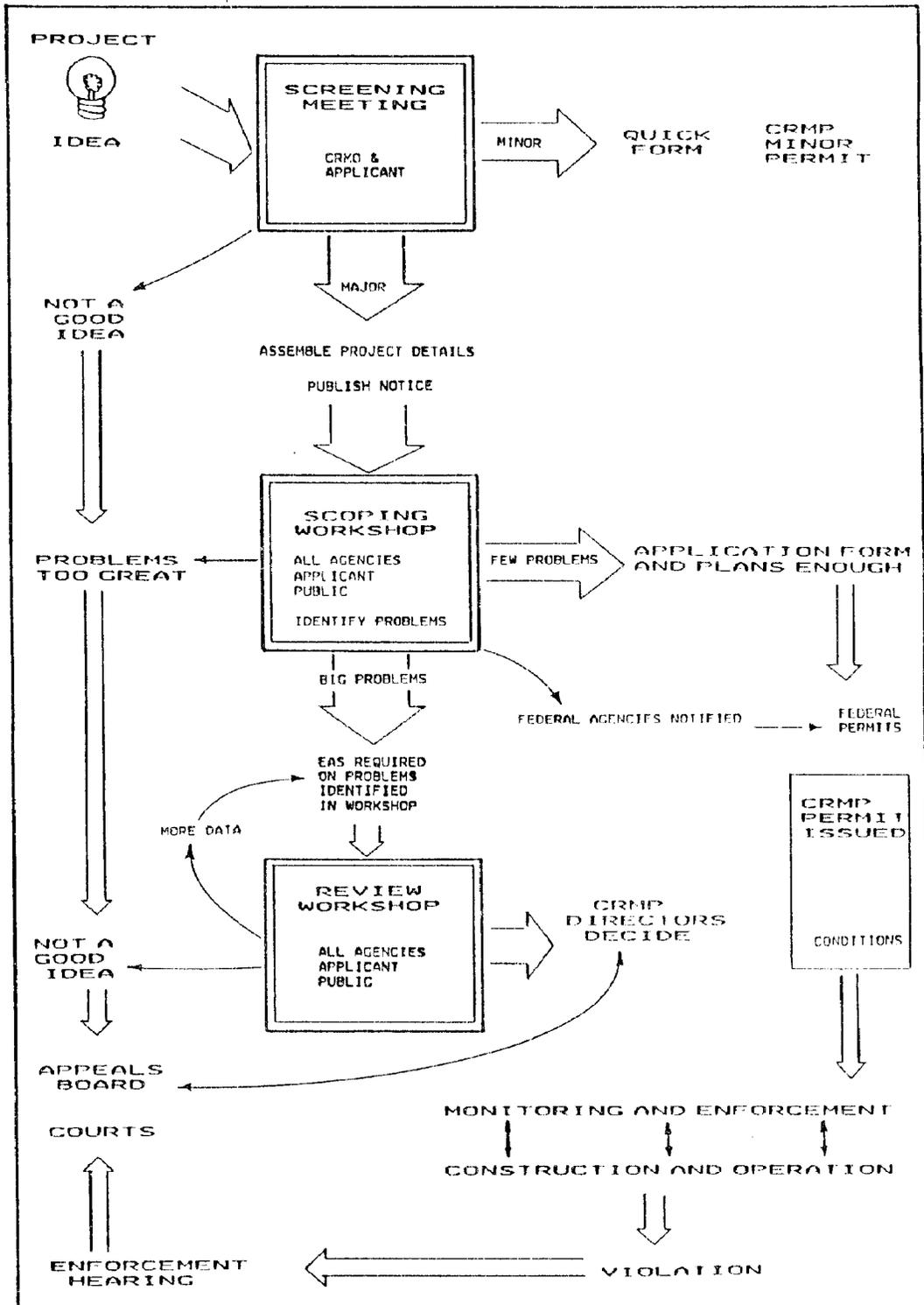


Figure 26. Workshop Method of Permitting and Project Evaluation.

technical/professional staff of the agencies and they work with the developer in scoping the problems. Naturally, the agency personnel will have had advance notice and advance details about the project from the project coordinator or CORE GROUP identified during the screening meeting.

The second day (or that afternoon) the public is included in the proceedings. First a panel discusses the project and what problems have already been identified and solved. Then the public is encouraged to contribute its views. The public also has had advance details on the project published at the time of the notice of public hearing.

The business community should be advised through the Chamber of Commerce and encouraged to contribute at this public workshop.

The project proponent and the government will then have everyone's views at the same time and can, if needed, meet again the next day to summarize the project needs.

If the developer has done a good planning job, and the project has few problems, it can be processed quickly with the information and agreements reached during this workshop.

If, however, there are serious problems and additional studies need to be made, the developer will be advised of exactly what problems need to be worked on. Assistance can be given (at a charge) with engineering or consultants can be recommended to work on the specified problems.

The developer can then have an Environmental Assessment Study (EAS) conducted, but only on the specified problems. At present, EIS studies consider many aspects of the environment which are not problematic. Studies which are irrelevant to the issue are expensive and waste time in the preparation and review process. This system thus represents considerable savings to the developer and will encourage participation at an early date in the design of the project to save time and money.

If additional studies are required, a third workshop, the review workshop, is set up at a time agreed upon in the scoping workshop. This provides a time-frame for the required study and enables participants to plan ahead.

The review workshop is conducted in same pattern as the scoping workshop but is oriented to evaluating the new information. The agencies meet, then the public and business community is included, and if the problems have been resolved in a satisfactory way agreements can be made and the project permitted or denied. Under some circumstances, perhaps with a fine for additional meeting costs, the project can be allowed to supply still more information if they failed to address the issues satisfactorily. This should be discouraged, however, as repeatedly asking the same questions is not likely to get better and better answers. More often, an inability to reach a satisfactory solution indicates an unwillingness on someone's part to cooperate and if this cannot be resolved in the three workshop schedule the project should be dropped.

HOW CAN THE WORKSHOP PROCESS BE APPLIED TO REGIONAL TRAINING COURSES?

Figure 27 shows how the workshop process can be applied to regional in-country training courses for resource management.

The Saipan experience did not follow this suggested pattern and it should have. As the comments from the core group will show, the three week continuous workshop was too long and it would have been advantageous to split up the program into the three sessions shown in Figure 27.

The introductory meeting would include a two day briefing with key people in the government followed by a three day seminar to introduce the government and public to the resource management program, its goals and how it works to everyone's benefit. Discussion periods would enable people to contribute suggestions and comments.

The results of the seminar would then be used to formulate the training course curriculum. The seminar would also line up prospective training course participants and these could assist in preparation for the thier own training course.

During the months following the seminar, the course director could assemble references and a work program tailored to the situation. Books and reports which would be useful to the project could be aquired and given to the participants and the island library at the time of the course.

The training course would work on needs identified at the seminar and would, therefore, answer exactly the problems which had been identified using examples identified during the seminar as working material.

The training course would instigate specific projects which the core group would work on for 6 months to a year. These projects would be the development of skills or materials or programs to answer government needs.

A third workshop would review the participant's projects and establish what needs to be done to support, revise, or otherwise change the projects. The review workshop would be an essential part of the program as it provides the needed follow-through that is often lacking in training programs in the islands today.

The review workshop should include the key government policy makers, the public, and the business community to assure they are kept informed and involved in the resource management program.

5.2 EVALUATION OF THE COURSE BY THE CORE GROUP

The core group evaluated the course according to a list of 4 questions. The full written reply is on file at the SPREP Secretariat. A summary of these replys is given here using the participant's own words with slight editorial corrections.

Each lettered comment represents one individual's comments.

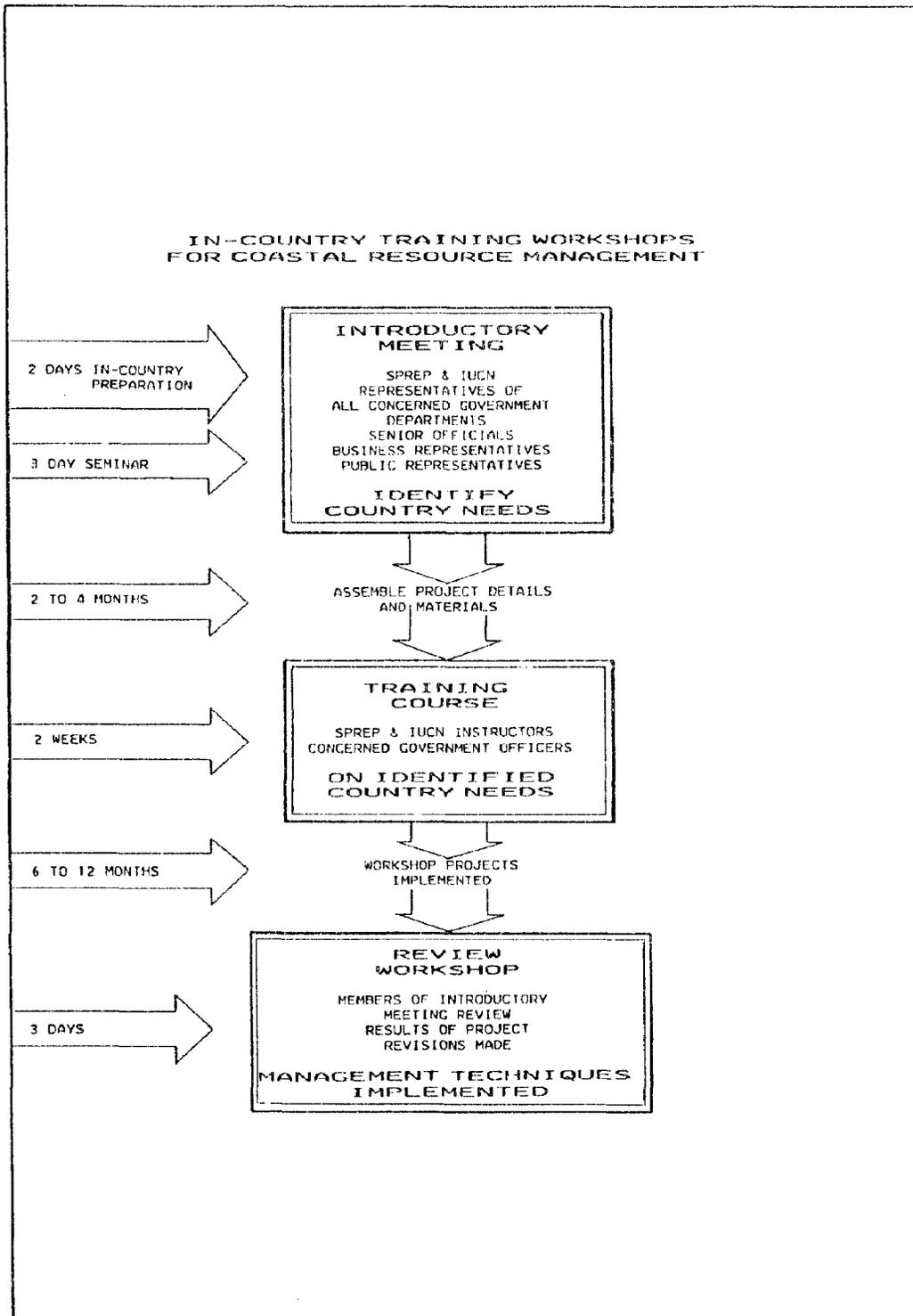


Figure 27. Workshop Method for In-Country Training for Resource Management.

QUESTION 1. What are your general comments on the course organization, content, and length?

ORGANIZATION

A) The course was well organized and when related topics evolved, the instructor always managed to bring back the main topic of the day.

B) The instructor's expertise and experience in Island Ecosystems has generated additional ideas to participants of this course. Specifically.... the need for environmental awareness, long term planning for a long term public benefit to island environments.

C) The course was very well organized. The instructors were well prepared for the course, always ready and willing to answer any question pertaining to the course. Inputs and outputs were highly respected, handouts were very useful information for the course now and in the future as references.

D) The course was very well prepared and presented, the organization excellent.

E) I was pleasantly surprised to find the course in general was more useful to me than I might have expected. The organization was effective.

F) From my own point of view, this course is really beneficial to us in terms of flow charts and the aspect of evaluation of different projects and how to start making an EIS. The organization was correct for this type of course.

G) Both instructors were very detailed in all the course material, the explanations were clear and understandable. I learned what the CRM program is and what it does for the environment. The course was well organized, for example, before going on a site visit we first discussed why we were visiting the site and afterward we evaluated what we saw.

H) As CRM Representative for Tinian, I am pleased to have participated in the workshop. I am newly hired for the job and I believe that the workshop provided me with some tools and techniques in assessing environmental impact to our island. We are fortunate to have superb instructors for the course. The course was well organized.

CONTENT

A) The field trips were good in that they familiarized me with the island and with field data collection methods. I was hoping for more concentration on CRM rules and regulations and enforcement methods and procedures. Great bio background presented with good insights and methods on organizing EIS/EIA; good information on steps/processes involved in setting up projects/assessments.

B) No objections to what was presented.

C) The content was exceptional. All pertinent information was given, procedural mechanisms were discussed, directions were given on how to screen, scope, make recommendations, and implement various problems, etc. Field work was made available in order to really see the physical problem areas, and recommend steps on how to approach a good and acceptable solution.

D) The content touched the major problems in the CNMI. The fact that what we did or reviewed was real and happening now in the CNMI made the course interesting.

E) The content was certainly pertinent.

F) We covered what should be discussed, such as the permit process, the flow chart, CRM program, responsibilities, etc.

LENGTH

A) Too short (3 weeks) additional workshops are needed.

B) I believe the length of a future course could be shortened to two weeks.

C) The length and hours spent per day is probably a little long. I think the course will be improved if it was divided into 2 or 3 separate workshops.

D) I enjoyed the whole three weeks and I am certain that there are tons of information that could have been included to lengthen the seminar.

E) Kind of long. It's hard to sit and listen and react and get it all down on paper for three weeks.

F) No comment because the length depends on the materials and the course description.

G) The length is about right.

QUESTION 2. What aspects of the course did you like best?

A) The review of the permit process and the analysis of environmental impact assessment.

B) Conditional permits, monitoring and enforcement.

C) Two particularly relevant problems were chosen; the JAL Hotel site and the decision about a dump site. I found the site visit to JAL particularly useful. I generally don't get a chance to look at sites from a critical perspective. Some of the problems were eye-opening.

D) The informal but to the point discussions between professor and participants is best. I felt I was a part of the course and not just sitting in because I had to.

E) The flow charts enable CRMO to follow every procedure and rules and regulations. This is the way to legally follow organizational charts and to clearly understand each individual's role and subjects needed to be examined. Secondly the matrix system works very well. Thirdly, the open discussions on how to put out in writing what CRM is really trying to say. Finally, I enjoyed all the different speakers that participated during the course.

F) Good check lists, flow charts, that coincide with course materials. Great for future reference.

G) Using real situations as examples (ie. the JAL proposal).

H) Realistic studies and actually accomplishing case studies pertinent to the immediate need of the CNMI.

QUESTION 3. What were the major problems with the course?

A) How to be really sure that a particular project will not impact the resources.

B) Poor presentations by some of the agencies during the seminar.

C) The need to divide the course into a series of shorter workshops.

D) We should have visited more areas, including permitted projects and evaluate what needs to be done to take corrective measures.

E) The length was the major problem. The course could have been divided into "workshops" and presented one week at a time over a period of six months.

F) We need more workshops for our program.

G) Films and slides would have been useful.

H) Inconsistent turn out by concerned agencies. More discussion could have been generated if other programs and agencies were present during the course.

QUESTION 4. Recommendations for future improvement of similar workshops?

A) Mandatory attendance of all programs or agency managers.

B) Recommend that participants present individual case study as a final contribution to the course.

C) The course should be upgraded to a graduate course for MA program.

D) Exchange of staff from SPREP with the CNMI to teach a course on an annual basis.

E) That a representative from the Governor's office be present to assess information and recommendations made by the participants to implement what was discussed during the session. I've been to many workshops but there is no change in the department. (Note: The Governor did attend the closing session and the individual who made this recommendation was given the responsibility for his agency of future coordination with the CRMO).

F) We should have used our group techniques for these recommendations for the workshop.

G) It would be nice to see some films and have checklists and flowcharts prepared in advance.

H) More guest speakers, more handouts, more class participation. Divide the course into separate workshops of special topics. More attendance by higher level people in the government.

SUMMARY OF RECOMMENDATIONS FOR FUTURE COURSES

The participant's comments lend weight to the original recommendations which were used to formulate this course (Section 2). Many of the problem areas and recommendations would be solved by using the workshop method as illustrated in Figure 27 and discussed in 5.1.

Following the triple workshop method would encourage more participation by all the agencies, better preparation, and follow-up.

The recommendation that each participant present an individual case study, which is a good suggestion, is also included in the workshop process outlined above.

5.3 PRESENTATION OF RESULTS BY CORE GROUP

The final exercise of the workshop was to have the participants present their work to the seminar group. The governor and several of the agency directors attended this closing exercise and the impact of this was very great on both the participants and the policy makers.

6.0 APPENDIX

6.1 REFERENCES

References of use during the course are given below according to subject areas.

CNMI RULES AND REGULATIONS AND LAWS PERTAINING TO COASTAL RESOURCES MANAGEMENT.

Coastal Resources Management Rules and Regulations. February 15, 1985. 49 pp. Available from CRMO, Office of the Governor, 6th Floor, Nauru Building, Saipan, CM 96950.

Leaflets from the CRMO:

The Permit Process. An excellent summary of the permit process.

Understanding your Coastal Resources. Why CRMP is needed.

You may need permits, licences or clearances to do business or conduct projects in the Commonwealth. Lists all permit requirements and who to contact.

Final Environmental Impact Statement of the Commonwealth of the Northern Mariana Islands Coastal Resources Management Program. More than 200 pages of detailed information about the program, its history, and who's who in the CNMI.

Public Law 3-47 of the Third Northern Marianas Commonwealth Legislature, First Special Session, 1982. Establishes the CRMP and describes its legal mandate.

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Thaman and Rizer. 1983. Environmental Management for Resource Development. 88pp. A report on a SPC Training Course at the University of the South Pacific. South Pacific Regional Environment Programme (SPREP). South Pacific Commission. Noumea BP D5. New Caledonia.

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World Conservation Strategy. Living Resource Conservation for Sustainable Development. Distributed during the course. International Union for Conservation of Nature and Natural Resources. 1196 Gland, Switzerland

ENVIRONMENTAL ASSESSMENT

Holling, C.S. (Editor). 1978. Adaptive Environmental Assessment and Management. John Wiley & Sons. New York.

Horberry, J. 1984a. Status and Application of Environmental Impact Assessment for Development. USE/UNEP International Seminar on Environmental Impact Assessment for Development. Conservation for Development Centre. IUCN. Avenue de Mont-Blanc, CH1196. Gland, Switzerland. Parts distributed during the course as hand-outs.

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Kaufman, R.A. 1972. Educational System Planning. Prentice-Hall. This is a book on systems planning which was used to develop the course strategy.

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IMPACT OF TOURISM ON ISLANDS

Pearce, D.G. (Editor). 1980. Tourism in the South Pacific. The Contribution of Research to Development and Planning. UNESCO Tourism Workshop, Rarotonga, 1980. UNESCO New Zealand Man and Biosphere Report No.6. Department of Geography, University of Canterbury, Christchurch, 1980. An excellent summary of the impact of tourism on islands. The chapter on Economic Impact Analysis in Tourism Planning and Development was distributed at the course.

Rajotte, F. and R. Crocombe (Editors). 1980. Pacific Tourism as islanders see it. Institute of Pacific Studies, University of the South Pacific. Suva, Fiji. Written by Pacific Islanders, the story of what they have experienced with tourism development.

United Nations Environment Programme. 1984. Tourism and the Environment. Industry and Environment March, 1984. Vol.7(1). Excellent case studies and ideas concerning tourism development.

ENVIRONMENTAL ASSESSMENT FOR HOTEL NIKKO

M&E Pacific. 1985. Environmental Assessment for Hotel Nikko Saipan. Hotel Nikko Saipan, Inc. Saipan, CNMI 96950.

WATER REFERENCES FOR SAIPAN

Barrett & Harris. 1984. Baseline Information and Problem Identification. Water and Related Land Resources, CMNI. Army Corps of Engineers, Ft. Shafter, Hawaii.

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Duenas and Swavely, 1984. Interim Operations Plan. Puerto Rico Dump. Saipan CNMI.

6.2 DETAILED SCHEDULE OF SEMINAR AND WORKSHOP

SCHEDULE OF ACTIVITIES FOR THE
SEMINAR ON
PROJECT EVALUATION FOR THE DEVELOPMENT OF
COASTAL RESOURCES
IN THE COMMONWEALTH OF THE NORTHERN MARIANAS ISLANDS
13 TO 16 MAY 1985
SAIPAN
PRESENTED BY
THE COASTAL RESOURCES MANAGEMENT OFFICE
THE SOUTH PACIFIC COMMISSION'S
SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAMME
INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE
AND NATURAL RESOURCES
FOR
TRAINING COURSE PARTICIPANTS, POLICY MAKERS, AND
ALL INTERESTED PARTIES

MONDAY 13 MAY: EVALUATION OF EXISTING PERMITTING AND ASSESSMENT PROCEDURES. (CHAIRPERSON, TAMI GROVE).

08:00 Opening ceremony. Governor's Representative Francisco Rosario opens seminar and course with the governor's statement on the importance of planning for sustainable development and the proper management of natural resources. CRMO Acting Administrator Tami Grove presents an introduction to the CRMO.

09:00 SPREP Course Director, The South Pacific Regional Environment Programme and what the course hopes to accomplish.

09:30 Coffee Break

10:00 Attorney General, Rex Kosack: The Legal Mandate.

10:30 CRMO Director: The Present Evaluation and Permitting procedure.

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09:30 Coffee Break

10:00 Attorney General, Rex Kosack: The Legal Mandate.

10:30 CRMO Director: The Present Evaluation and Permitting Procedure.

11:00 Discussion, questions and answers.

12:00 Lunch Break

1:00 Representatives of Lead Agencies present how they now process permit requests and project evaluation. DEQ, DNR, DCL, DPW, HPO.

3:00 Coffee Break

3:15 Discussion of procedures and problem areas.

TUESDAY 14 MAY: ROLE OF THE PUBLIC, INDUSTRY, SCIENTIFIC CONSULTANTS, AGRICULTURE AND EDUCATION IN PROJECT EVALUATION. FEDERAL INVOLVEMENT. IDENTIFICATION OF PROBLEM AREAS AND CASE STUDIES.

08:00 SPREP Course Director. Overview of previous session and plan for the day.

08:30 Representative of the Public, Congressman Benigno Sablan. The role of the Public in planning, permitting and evaluation.

09:00 Representative of Industry, Paul Manglona. The industrial view. Norman Tenorio, Saipan Chamber of Commerce (Ms. Submitted).

09:30 Coffee Break.

10:00 Marianas Public Land Corporation, Frank Guerrero.

10:30 Environmental Consultants and the Role of Scientific Expertise, Ivan Groom, Richard Randall.

11:00 Federal Involvement, Tami Grove, Bill Lopp.

12:00 Lunch Break

1:30 The need for Agricultural Considerations. Charlie Frear

2:00 Educational Needs and Possibilities for Coastal Resource Management. Agnes McPhetres.

3:00 to 3:15 Coffee Break

3:00 General Discussion

WEDNESDAY 15 MAY: ENFORCEMENT AND MONITORING. SITE VISITS TO OBSERVE PROBLEM AREAS OF CASE STUDIES.

08:00 SPREP Course Director. Review and Plans for the day.

08:15 Analysis of problems in monitoring, enforcement, and alteration of projects after permitting. The conditional permit.

CRMO Ben Aldan, DEQ, DPW, DNR.

09:30 Coffee Break

10:00 Form work groups to examine problems and develop alternative guidelines for monitoring and enforcement.

11:00 Work Groups report and discuss results.

11:30 Lunch Break

1:00 Site Visits to observe problem areas in the field.

THURSDAY 16 MAY: ALTERNATIVE METHODS FOR EVALUATION OF PROJECTS AND RECOMMENDATIONS FOR SOLVING PROCEDURAL PROBLEMS.

08:00 Course Director. Adaptive Resource Management.

08:30 Formation of Work Groups to summarize and determine the relative importance of problems identified in the seminar.

09:30 Coffee Break

10:00 Resume work group activity.

11:30 Lunch Break

1:00 Work Groups report and discuss findings.

1:30 Work groups develop alternatives and recommendations.

3:15 Coffee Break

3:30 Work groups report and discuss results.

SCHEDULE OF ACTIVITIES FOR THE
TRAINING COURSE ON
PROJECT EVALUATION FOR THE DEVELOPMENT OF
COASTAL RESOURCES
IN THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
17 TO 30 MAY 1985
FOR
APPROPRIATE GOVERNMENT AGENCIES WITH
PARTICIPATION BY MEMBERS OF THE PUBLIC.

FRIDAY 17 MAY: RESOURCE ANALYSIS FOR DEVELOPMENT PLANNING AND ENVIRONMENTAL EVALUATION OF PROJECTS.

08:00 Objectives of the Course and Introduction to Environmental Planning. Course Director.

08:30 Long Term Resource Planning. Tools and Techniques. Bill Concepcion, MPLC.

10:00 Coffee Break

10:30 Ecological Field Studies. Richard Randall.

11:30 Lunch Break

1:00 Environmental Impact Assessment for Projects - Screening, Scoping, and Workshop Strategies. Richard Chesher.

3:00 Coffee Break

3:30 General discussion.

MONDAY 20 MAY: APPLICATION OF SEMINAR FINDINGS TO PROJECT EVALUATION. PROJECT 1. THE PROPOSED JAL NIKKO HOTEL. SCREENING AND STUDY REVIEW. CONSTRUCTION OF GUIDELINE CHARTS AND CHECKLISTS.

08:00 Overview of project evaluation technique and screening techniques. Richard Chesher.

09:00 Impact of proposed hotel on Lagoon, the U of Guam Study Richard Randall

10:00 Discussion on evaluation of consultant's reports and working

with consultants.

12:00 Lunch Break

01:30 Work groups develop wall charts to summarize seminar findings and CRM guidelines and checklists such as:

Evaluation Process check lists and flow-sheets.

Agency Responsibilities

Monitoring and Enforcement checklists and flow-sheets

TUESDAY 21 MAY: APPLICATION OF GUIDELINES TO PROJECT EVALUATION. NIKKO HOTEL SITE VISIT. ANALYSIS OF RESOURCE REQUIREMENTS, BIOLOGICAL, SOCIAL AND ECONOMIC IMPACTS.

08:00 Site visit to proposed development area, examination of basic field considerations and outline of information needs.

12:00 Lunch Break

1:00 Evaluation and Administration review of development proposal. Use of flow sheets and check lists.

1:30 Work Groups consider Resource Requirements (Space, Fresh Water, Food, Materials, Labor, Transportaion, Government Support).

2:30 Discussion

3:00 Work Groups consider Economic, Cultural, Aesthetic resources.

4:00 Discussion

WEDNESDAY 22 MAY: PROJECT 1 ANALYSIS (CONTINUED). EVALUATION OF REPORTS, FEDERAL PARTICIPATION, PUBLIC PARTICIPATION,

08:00 Review of impact analysis. Richard Chesher

08:30 Federal Permits. Frank Dayton, U.S. Army Engineers.

09:30 Coffee Break

10:00 Public Awareness and Participation

10:30 Discussion

12:00 Lunch

1:00 Water, a critical resource. Pedro Sasamoto, Governor's Office.

2:00 Work Groups discuss Recommendations to NIKKO Hotel Permit,

Monitoring and Enforcement.

THURSDAY 23 MAY: PROJECT 1 ANALYSIS CONTINUED. GETTING AND MAINTAINING INFORMATION, PREPARATION AND COMMUNICATION OF RESULTS. CONDITIONAL PERMITS.

08:00 Getting Information. The application form & guidelines for developers.

09:00 Responsibilities and methods for obtaining and maintaining additional needed information. Literature Searches, Libraries, Information Sources.

09:30 Coffee Break

10:00 Preparation and Communication of Results

10:30 Formation of Work Groups to Examine Permit Conditions and the correct Writing of these.

12:00 Lunch Break

1:30 Work Groups Prepare Presentation of Results for NIKKO Hotel study.

FRIDAY 24 MAY: CONCLUSION OF NIKKO HOTEL PROJECT AND START OF ANALYSIS FOR SANITARY LANDFILL SITE SELECTION.

08:00 Consultation with JAL Airline Representatives.

08:30 The Artificial Lagoon Concept: Hans Krock, JAL Consultant.

09:30 Storm Drains. Hiroshi Takagi, JAL.

10:00 Coffee Break

10:15 Project 2: Site Selection for a new Sanitary Landfill Site. Review of Literature, Identification of Impact Concerns, Matrix Analysis. Work Groups.

12:00 Lunch Break

1:00 Site Visits to Landfill Sites. All Afternoon.

TUESDAY 28 MAY: PROJECT 2 COMPLETION. REPORT WRITING. IMPLEMENTATION GAP.

08:00 Review of Landfill findings.

08:30 Work Groups Finish Landfill Matrix and Plans for present Dump Closure.

10:00 Report Writing.

12:00 Lunch Break

1:30 Reality Testing: Are the problems really problems?

2:00 The Implementation Gap. How to Get a Project Started.

2:30 A Research Library Project. Work Groups & Agnes McPhetres.

WEDNESDAY 29 MAY: SUMMARY OF RESULTS. EVALUATION. REVIEW OF PRESENTATION.

08:00 Overview of Workshop Method of Project Evaluation.

09:00 Work Groups Evaluate Course

10:00 Review of Projects, flow charts, and presentation on Thursday.

THURSDAY 30 MAY: U.S. ARMY ENGINEER WATER WORKSHOP. CLOSING CEREMONY. PRESENTATION OF COURSE RESULTS.

08:00 U.S. Army Water Workshop.

1:00 Rehearsal for presentation.

4:30 Summary of Workshop Activities. Tami Grove. Richard Chesher.

5:00 Closing Comments. Governor Pedro P. Tenorio.

5:15 The role of the College in Workshops. Agnes McPhetres.

5:30 Presentation of SPREP/IUCN Certificates and CNM Certificates. Tami Grove and Governor Tenorio

5:45 Presentation of Workshop Activities. Workshop Participants.

6.3 TEXT OF COMMENTS BY SEMINAR PARTICIPANTS

REMARKS OF FRANCISCO ROSARIO
COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
AT THE TRAINING COURSE ON PROJECT EVALUATION
FOR THE DEVELOPMENT OF COASTAL RESOURCES IN THE CNMI
MAY 13, 1985

On behalf of the Governor, I am pleased to welcome you to the opening session of this important training course, particularly those of you who have come from off-island to share your knowledge of the process of project evaluation. The governor is unable to attend and extends his sincere regrets and apologies. He asked me to convey to you the following observations.

As those of you who live here are well aware, progress and development have been major goals of this administration. And, as we watch the growing volume of business and the increasing number of development projects in our islands, we are pleased by the faith shown in the Commonwealth as a place to grow and prosper. It is in the best interest of our Commonwealth citizens that these activities continue and expand.

At the same time, the government and a growing number of our people are also well aware of the need for growth which takes into account our island resources so that future generations will continue to advance and benefit from them as we are doing presently. The Coastal Resources Management Office and the other government departments and agencies represented here today share this important responsibility.

It is the modern way to plan and consider the effects of development in advance. It would not serve our increasingly important tourist industry, for example, to allow activities which would pollute or otherwise damage our environment. The techniques you will be learning, or in some cases teaching, in the next three weeks, will serve to help us plan for the continuing development we are experiencing, and to better assess projects proposed for our islands. It is very simple.... properly applied, this approach to development can allow us to have our cake and eat it too. With proper management, we can have continued growth, now and in the future, while maintaining the resources that are so important to all of us.

We would like to say how pleased we are by this fine example of regional cooperation through the South Pacific Regional Environment Program of the South Pacific Commission. The Commonwealth is a long way from New Caledonia, but we are an active part of this ocean-wide program. We may be small islands but we do not stand alone in our need to protect our ocean environment. The South Pacific Commission links us together and helps us join our skills and efforts with all other island countries and with the rest of the world. As an example, the South Pacific Commission helped bring expertise from the International Conservation Organization to support this training course.

I encourage each of you to study hard and learn well from this course.

6.3 TEXT OF COMMENTS BY SEMINAR PARTICIPANTS

GOVERNORS POLICY STATEMENT PRESENTED BY FRANCISCO ROSARIO
COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
AT THE TRAINING COURSE ON PROJECT EVALUATION
FOR THE DEVELOPMENT OF COASTAL RESOURCES IN THE CNMI
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"COASTAL RESOURCES MANAGEMENT: ENVIRONMENTS AND ECONOMICS"

Comments By

TAMI GROVE
Acting Administrator
Coastal Resources Management Office

to the

COASTAL RESOURCES MANAGEMENT/SOUTH PACIFIC REGIONAL
ENVIRONMENT PROGRAM

Seminar on

Project Evaluation for the Development
of Coastal Resources

May 13, 1985
Hyatt Regency Hotel, Saipan

The need for management of coastal resources is based in the fact that coastal areas, particularly islands, are made up of finite resources that are both valuable and vulnerable to the activities of man. Here in the CNMI, the underlying intent of coastal resources management is to place the Commonwealth in a better position to accommodate the demands of a growing population and the needs of an expanding economy without having to unnecessarily compromise its rich natural, cultural and historic resources.

The primary goal of the Coastal Resources Management Program in the Commonwealth thus is to provide a mechanism for the Commonwealth to promote and regulate development in a wise and orderly manner. The program is concerned with protecting the development community and general local population alike, by striving to maintain and protect the resources upon which the economic viability of both is dependent.

Coastal resources management calls for a comprehensive and coordinated approach to managing sensitive land and water resources, conflicts, problems and issues. To name just a few, these include:

- 1) maintaining air and water quality by carefully controlling the release of pollutants
- 2) safeguarding life and property from storm and typhoon damage by directing development away from floodplains and storm surge areas
- 3) promoting marine resources such as fisheries by protecting fragile habitat areas
- 4) encouraging public beach access by striking a balance between the rights of private property owners and the rights of the public for access to areas of public domain.

One often finds that land-and water-use management agencies are characterized as being concerned only with environmental impacts, not economic

considerations. However, environmental resources are in fact economic resources. And, in many cases, the healthier the environmental resources, the higher their long-term value.

Looking at our islands' tourism economy is a good example of this. The attraction of the CNMI as a tourist destination is largely due to such factors as its clear blue waters, its varied marine resources, its scenic views and its historic properties. The overuse or abuse of these resources could well spell doom for the future of the tourist industry. Thus, protecting the islands' environment and the quality of the life of the people who live here actually makes good business sense.

Many of you will recall the conference that we hosted here last November under the theme "Coastal Resources Management - A Tool for Sound Development." During the course of the conference, we looked at the many opportunities that coastal resources management offers to the government, business community and private sector in guiding and promoting sound economic development. Conference participants began to dispell the notion that the government's goals and objectives for environmental management are diametrically opposed to the investment community's goals and objectives for economic development. It became clear that quite often the government and private sector will find themselves on the same side of the fence when looking for the most economical long-term success of a project or planning area.

An example of this type of situation is designing sewage disposal systems. While environmental quality agencies look to solutions which prevent the contamination of land and water resources, developers can be safeguarded against design problems which may have been overlooked. In some cases, the developer may find himself saved by the government's guidelines which avoid problems created by rising water tables during the rainy season. Such could bring raw sewage to the surface of the developers property, representing both a health problem and potential devaluation of the land.

Or, other designs can keep developers from having to pay the potential cost of sewage clean-up along his property's coastline. In such instances, the economic costs associated with properly designing a sewage disposal system in the beginning are generally far less than the economic losses suffered in redesigning a system, clean-up or loss of clientele.

Another example of this sort is ill-planned land clearing in erosion prone areas. Bulldozing vegetation without consideration of the impact of heavy rains during the rainy season or void of any erosion control measures can result in massive runoff and sedimentation into the islands' waterways and lagoons, despite how far inland the earth moving activity might occur. Not only is valuable top soil lost, but water quality is effected and marine organisms, particularly coral, can be smothered. More economic losses may be suffered due to the loss of habitat for fish (which means fewer fish for fisherman) and the loss of a healthy reef which series as a wave barrier to the storms that regularly strike our shores.

It is precisely these types of coastal resources management "tools" for sound development and avoidance of unnecessary economic losses that this seminar and training course will seek to identify, examine, expand and improve.

Perhaps the greatest "tool" coastal resources management offers is the cutting of government "red-tape" by coordinating inter-agency responsibilities and requirements. The Commonwealth's Coastal Resources Management Program is not one agency, but actually a network of several, including DNR, DCL, DPW, DEQ and HPO. These agencies provide analysis of social, economic and environmental considerations in resource management planning and in the assessment of specific projects. Many benefits are gained by such a network. Permit processing is simplified and streamlined by having the CRM Office act as a point of contact for permit applicants; the CRM Office in turn works to contact and coordinate with all pertinent federal and local agencies. The process often provides many advantages to

project proponents by providing information which may range from applying for Army Corps of Engineer permits to calculating power supplies and demands. Often during the process unforeseen problems can be flushed out, the most appropriate available sites for a proposed project can be evaluated, and engineering designs might be enhanced.

Through such intergovernmental coordination, CRM agencies can get an idea of what development is happening, of what types, in what locations and of planning efforts needing to be undertaken in order to prepare for that development. These efforts can also reduce investors risks by offering an assurance that compatible adjacent activities will be given highest priorities in future management decisions. This adds to the stability of land values by discouraging such situations as auto repair shops opening next to restaurants or heavy industrial uses being allowed to operate next to hotel developments.

Whether a private businessman, government official or member of the public, coastal resources management does indeed provide many tools to guide the wise development of the islands. The primary aim of this seminar is thus to increase peoples understanding of, and participation in, the development process, thereby making coastal resources management more efficient, cost-effective, predictable and streamlined. With your participation, we hope to identify the strengths and weaknesses of CRM's current operations, with a eye to expanding and improving the Program. I strongly encourage your participation and constructive criticism in the next few days. Thank you again for attending.

THE LEGAL MANDATE
FOR COASTAL RESOURCES MANAGEMENT

Comments By

REX KOSACK
Attorney General
Commonwealth of the Northern Mariana Islands

to the

COASTAL MANAGEMENT/SOUTH PACIFIC REGIONAL
ENVIRONMENT PROGRAM

Seminar on

Project Evaluation for the Development
of Coastal Resources

May 13, 1985
Hyatt Regency Hotel, Saipan

THE LEGAL MANDATE

I have been asked to talk to you about the legal mandate - the obligations of the public, industry and departments. Yet, I notice that other speakers will be discussing in detail the heart of the CRM program, the permitting process, so I will address the law itself. It is important to start the week off by understanding the foundation of the program.

I. Problem

In 1969 the U.S. Commission on Marine Science recommended the establishment of coastal zone authorities in each state. The U.S. Coastline was recognized as a limited and vital resource that was being lost and damaged due to a lack of effective management.

A. The pressures placed on the coastline today are considerable.

1. Over half of the population of the U.S. lives near the ocean or the Great Lakes. By the year 2000, 80% of the U.S. population will live within 50 miles of U.S. shoreline.

2. In addition to residential development, the coast is being used more for resort development. Hotels, marinas and large resorts being more people to the coast.

3. In recent years, recreational uses of the coast have increased. People come to the ocean to swim, lie on the beach, hang glide, ride dune buggies, dirt bikes, camp, fish, jog, sail, water ski, and scuba dive.

4. While each recreational use of the coast competes with another for space, there are competing industrial uses. The nation relies on its coastline for much of its commercial shipping. The ports of the United States are still among the busiest in the world.

5. Fisheries are based on the coastline. Fleets of boats daily harvest fish and shellfish from within the coastal zone.

6. At the same time, the nation is depending more on this area and adjacent areas for its energy needs. Offshore platforms are tapping the oil found off the coast. Ocean mining, as well, is being seriously developed as yet another competing need.

II. Result

A. The increasing demands placed on the coastline have

generated new problems.

1. The coastal zone is an area which is extremely vulnerable to destruction. At risk are its living marine resources which may be irretrievably lost or damaged.

2. The scarcity of land has resulted in conflicts over how the shoreline should be used. Among the competing interest groups are the state and the federal government which have developed different priorities.

3. At the same time, private ownership of land adjacent to the shore has caused the public to lose access to the coast. The rights of the private owner versus the public have to be weighed.

4. As the coast is developed, development itself creates issues. What is to be done about waste disposal? In dredging harbors, disposal sites need to be identified.

5. Development without coastal planning can result in the destruction of property and the loss of lives. If natural protective features (such as barrier islands and sand dunes) are removed, storm protection is lost. Erosion, landslides and wave damage may result.

6. In an attempt to respond to these problems, a few states had attempted to regulate their coastlines. Developers were faced with a maze of hearing procedures at the state and federal levels with no coordination between the two.

III. Coastal Zone Management Act

A. On October 27, 1972, Congress reported out the Coastal Zone Management Act. It was signed into law the same day.

1. The Act begins with congressional findings that increasing and competing demands upon the coastal zone have resulted in the loss of living marine resources, adverse changes to ecological systems, decreasing open space for public use and shoreline erosion. That present state planning and regulation of uses are inadequate. States would be encouraged to exercise their full authority over the coastal zone.

2. In order to induce coastal states to develop land and water use programs in the coastal zone, federal money (grants) were made available to states for this purpose.

a. Coastal states includes the CNMI and the TTPI. And, coastal zone was defined as the outer limit of the U.S. territorial sea and inland to the extent necessary to control shorelands.

b. The program of approving grants and

monitoring programs was finally placed under the Secretary of Commerce. (The Senate had provided for this; the House put it under Interior.)

c. Grants: There are three basic grants available to coastal states where U.S. will pay 80% of program costs. For territories, the U.S. picks up the entire cost.

(1) Management Program Development Grant - this grant supports the cost of developing a CRM program and its initial implementation.

(2) Administrative Grant - this grant supports the cost of maintaining a CRM program.

(3) Resource Management Improvement Grant - this grant provides money for the purchase of land or low-cost construction for three purposes:

- (a) to preserve or restore an area,
- (b) to redevelop deteriorating waterfronts and ports, or
- (c) to provide public access to the coast.

(This grant is project-oriented.)

d. Federal Consistency. The CZMA does more than provide grants to encourage states to engage in comprehensive planning and regulation. It provides federal authority to state programs through the federal consistency provisions.

(1) Federal agencies must conduct their activities, to the maximum extent practicable, in a manner consistent with state management programs.

(2) Applicants for federal permits must certify that their program complies with the state program. The state is notified and if its CRM program objects, no federal license is granted.

B. After 13 years, the CZMA has spent \$187 million on developing CRM programs in 28 coastal states. The primary coastal states without programs are Ohio (Great Lakes), Georgia and Texas. Funding ends in September of this year. Senate Bill 959, if approved, would continue funding. The program has previously been reauthorized, in 1980.

IV. The CNMI Response

A. In early 1980, a CRM program was established in the CNMI by Governor Camacho under Executive Order No. 15. The Office was placed in the Governor's Office and was justified under an executive order as a reorganization of government without a change in law. Regulations were promulgated under the combined authorities of:

Attorney General
Commerce & Labor
Public Health
Natural Resources
Public Works

B. On February 11, 1983, the Coastal Resources Management Act of 1983 was signed into law.

1. The CRMO was retained in the Governor's Office with a Program Administrator appointed by the Governor.

2. A Coastal Advisory Council was established to advise the CRMO on any proposed change in the program or its regulations, and to interpret the CRM policies and regulations.

- a. Mayors
- b. Spec. Ass't. Carolinian Affairs
- c. MPLC Chairman
- d. MVB Executive Director
- e. Ports Authority Executive Director
- f. Chamber of Commerce President
- g. Historic Preservation Officer
- h. Legislative staff member from House and Senate
- i. Three public members appointed by Governor:
 - (1) fisheries
 - (2) construction
 - (3) subsistence lifestyle

3. An Appeals Board set up

a. Three persons advice and consent appoints which rules on appeals from coastal permit decisions.

V. Program Agencies

Regulatory agencies designated are DNR, C & L, DPW, DEQ, Historic Preservation. They may jointly establish a permit system by regulation.

A. At that time the 1980 regulations were still in effect. Public Law 3-47 kept them in effect until changed.

B. Any change in regulations was to follow the Admin. Procedures Act 30-day's notice and 10 days adoption) and then receive legislative approval. That procedure was determined to be unconstitutional by AG Opinion as violating the separation of powers.

C. So, in 1984 the CRM regulatory agencies adopted new regulations by only following the Admin. Procedures Act.

Public Law 3-47 is essentially an enabling act. It sets down very few procedures; instead, it leaves that for the regulations.

1. It gives the CRM Office several powers and duties:
 - a. coordinate planning CRM policies by gov't;
 - b. monitor CNMI activities for consistency with CRM policies;
 - c. provide coordination and decisions on whether federal activities affecting coastal resources are consistent;
 - d. to receive federal CRM funding;
 - e. to subgrant federal funds;
 - f. to regularly publish status of permit activities and means by which any person may request a public hearing;
 - g. operate a broad and effective public education program;
 - h. to provide staff for Advisory Council and the Appeals Board;
 - i. to ensure consistency of permit decisions with regulations and with policy of this Act;
 - j. to coordinate permit process;
 - k. promote economic development of coastal areas,
 - l. to ensure that modifications of regulations are consistent with policies of Act;
 - m. to initiate conflict resolution procedures when CRMO interprets CNMI obligations different than other agencies.

VI. Permit Process

As you are probably aware, the CRMO does not make permit decisions. It is a caretaker agency to ensure program compliance, provide staff assistance, education and enforcement.

The permit decisions are made by the regulatory agencies,

who must prepare a joint written decision within 60 days of receiving request for review.

That decision must comply with any land and water use plans adopted by the Legislature.

If the agencies are unable to agree, their recommendations shall be summarized in writing and submitted to the Governor who will decide the disagreement.

The Appeals Board is available to aggrieved persons from the decision of the agencies. Application must be made within 30 days of the decision and the Board shall decide within 30 days of application. If a party is dissatisfied with that decision, may appeal to Commonwealth Trial Court. Commonwealth Trial Court does not make its own decision, but only decides whether the Board had substantial evidence for its decision.

VII. Penalties.

A. Violation of Act (hard to do) or regulations ----- civil fine \$10,000 day

B. Felony - knowingly and willfully commits act prohibited by the Act ----- 5 years/\$2,000 (C/T)

C. AG may sue for exemplary damages in court if person intentionally and knowingly violates regulations.

D. False statement or certification in application or document

or
Falsifies, makes unaccurate any monitoring device or method

----- permit revocation/suspension
\$10,000 civil fine each violation

VII. Summary

A. You now have legal background in Act unlikely to take time to acquire. Now, all needs be studied are the regulations where substance is found. From you agenda you will be going over them all week in greater detail than I could give you in a half hour.

B. CNMI has fragile coastal resources. Perhaps all of its resources -- land, water and reef -- are all very scare and easily exhausted. The people of the NMI depend more and live in a closer relationship to their resources than people do in the States. So, maybe we can conclude that the need for a management program in the CNMI is greater than elsewhere.

C. Certainly, commercial development proceeds here at a frantic pace. New hotels are being planned, existing ones are expanding. New housing subdivisions are being added, new apartment buildings, new workers barracks. There is a need to harmonize all of these activities with the future. To balance the benefit of economic growth with any negative impact they pose to our natural resources.

D. Fortunately, this program exists while we are in the early years of government and development. We enjoy an advantage for future planning few states have. Many states are faced with the task of restoration only; our challenge is preservation of what we presently enjoy.

I see CRM as the CNMI's only zoning agency. As such, it is likely to encounter all sorts of difficulties. But, none of us should forget its value to the future of the Commonwealth.

COMMENTS BY NORMAN TENORIO, PRESIDENT OF THE
SAIPAN CHAMBER OF COMMERCE

Thank you for inviting me to speak to you on behalf of the Saipan Chamber of Commerce, a non profit organization.

With a membership of 134 companies, the Chamber represents the majority of the Commonwealth of the Northern Mariana Islands private sector.

Although the CNMI Coastal Resources Management Program has made life difficult for us from time to time, we firmly believe it to have merit. As the only land use management law where, it is needed to control and balance development of our beautiful coastal areas.

Without a planning and management program such as CRM we would be left to face haphazard and unsightly development, to the detriment of our growing tourism economy and reef fisheries.

The Coastal Resources Management Program has helped the private sector in other ways also. For example, its enabling legislation guarantees the Chamber of Commerce a seat in the Coastal Advisory Council, perhaps the only legislation which does this.

The program also funded the Saipan Lagoon Use Management Plan, the policies of which were developed with strong private sector representation, including the Saipan Chamber of Commerce.

The program funded landscaping of beach areas to prevent shoreline erosion which also happened to beautify the area for our residents and visitors.

At a recent economic development conference, which we note included several representatives of the CRM program, a number of issues were endorsed of interest to this group. These include recommendations to:

Develop a storm drainage master plan and AE plans and on-site drainage to avoid degradation of coastal waters.

Establish an island wide solid waste collection system

Develop middle road-texas road as the main north south route and make beach road a scenic highway.

Prepare an area management plan to guide private development in the Chalan Kiya-golfcourse, Koblerville, San Antonio, Chalan Piao areas.

Place a 10 year moratorium on the allocation of the former coast guard station.

Develop a lower base industrial park for non polluting industries which are not water and power intensive.

Improve the Saipan Fishing Complex in Garapan with boat launch

ramps, mooring, gasoline sale and minor dredging.

Maximize the use of historic structures.

Develop and "old town" plan for Chalan Kanoa.

Close Puerto Rico dump and use the space for parks.

Implement zoning and building codes.

Obtain full benefit from its memberships in regional organizations such as the South Pacific Regional Environmental Program, which is conducting this workshop along with CRM.

Determine the best uses for the remaining undeveloped coastal spaces, and consider redevelopment of certain areas along the lagoon.

Attract and develop industries capable of developing resources within the 200 mile zone.

Support the Saipan Lagoon Use Management Plan.

Use wetlands first for natural functions, second for sustainable extractable uses; exploit compatible uses for development.

Develop a strict groundwater protection program which includes the regulation of surface uses located overaquifers.

Fully develop and utilize forestry resources for local use and export and for recreation.

Create wilderness reserves.

Develop an aquaculture industry.

The Saipan Chamber of Commerce has not in the past taken an active role in the review of development projects. However, we would like to participate in the review process for major projects from time to time in order to try to direct our development pattern into desirable and acceptable directions, such as those identified in our economic development plan.

Also, we would like to see some requirements for major developers from outside CNMI to divulge the types of economic benefits the local business community and the average person can expect to realize from their presence.

For example, permit conditions which require a percentage of goods to be purchased from the local economy, or which require advertised requests for bids, etc.

Finally, the Coastal Resources Management Program should become more active in fishing development, not only in reef fisheries, but in small local commercial fisheries. Perhaps there may be some ways to explore

the resources of our 200 mile zone.

In closing, let me again thank you for your interest in the Saipan Chamber of Commerce and for asking me to speak.

COASTAL RESOURCES MANAGEMENT PROGRAM
COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

COASTAL PERMIT APPLICATION

FOR MAJOR PROJECTS

The Coastal Resources Management Office has established that your project is not eligible for a minor permit it is classified as:

MAJOR SITING

APC PROJECT

Section 8 (Page 11) of the Coastal Resources Management Rules and Regulations gives details about the permit process. The CRM preapplication meeting will answer any questions you may have about the process or intent of the law or what you will need to do to fill out this application.

The CRMP permit process is designed to help plan development projects so they can operate in the Commonwealth without difficulties. Building and operating a commercial concern in the CNMI requires the interaction of many different government agencies, including the Department of Public Works, the Division of Environmental Quality, The Department of Commerce and Labor, the Department of Natural Resources, the Department of Community and Cultural Affairs and the CRMO itself. In addition, there are federal agencies which require permits for construction in the Commonwealth. Prior to the CRMP you would have had to deal with each agency separately, now you can plan your project in an orderly way through the CRMP.

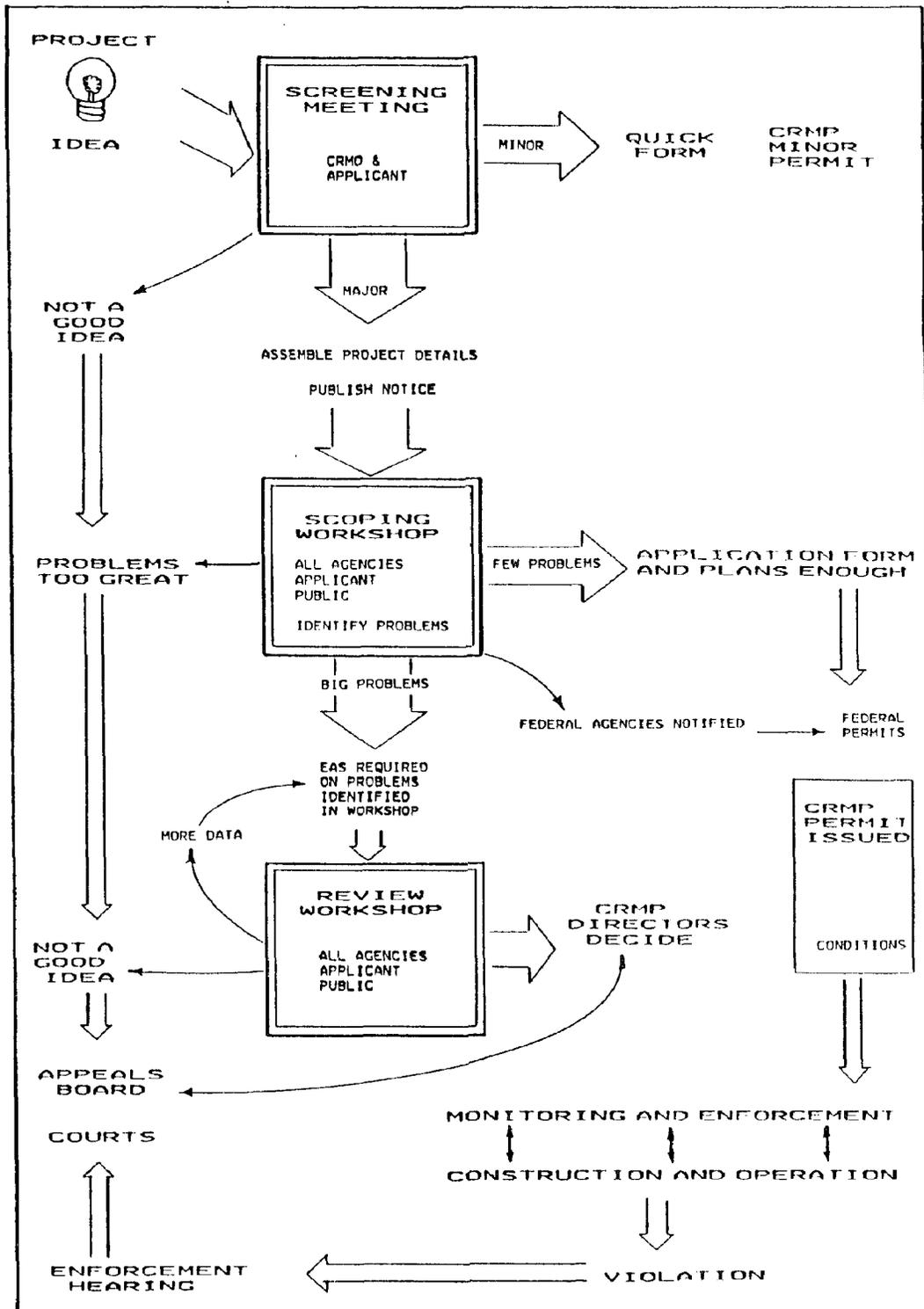
The objective of this application is to find out exactly what your project's needs are so the government can plan to meet those needs. We also must be sure, for our sake as well as yours, that what you plan to do is both reasonable and non-destructive to the island's fragile environment.

The extent of information needed depends on the size and complexity of your project. The larger and more difficult your project is, the more information we will need to assure the project will progress smoothly.

Please note that if you work with the program and answer the questions of this application fully and clearly we will be able to process your permit quickly, perhaps at the time you submit it during the required SCOPING workshop.

If serious problems arise or if we need to have more information, it may be necessary for you to have a report prepared on the problem areas. For example, any major dredging or filling activity will require a substantial environmental evaluation of the effects of the proposed work. A second, Review Workshop, will examine the environmental evaluation statement and a decision will be reached based on that review. In exceptional cases, additional meetings may be held at additional cost to the developer.

WORKSHOP PERMIT PROCESS COASTAL RESOURCE MANAGEMENT



The following diagram indicates how the process works. It is to your advantage to prepare the application form properly for the scoping workshop.

The application will need to be accompanied by seven (7) copies of Architectural and Engineering drawings, location and land maps. The site plan shows property lines, property owners, activities which take place on neighboring land, major utilities, names of roads, any important geographic or historic features, places to be excavated or filled, natural drainage areas, sewage treatment facilities or existing sewer lines, storm drains, and any discharges or effluents which the activity may generate.

A view of the side or cross-section of each structure in the project is also required in sufficient detail to show the slope of the ground and mean high water line (if applicable) as well as elevations of structure foundations.

Other drawings or plans necessary to support the project application should also be included. Some of these are mentioned below under specific topics.

TITLES or other legal documents which demonstrate the ownership and legal interest in the property involved must be copied and submitted with the application.

If a question does not apply to your project mark it N/A.

Public Law 3-47 states that any person who knowingly and willfully makes a false statement, representation, or certification in any application for a coastal permit shall be subject to permit revocation or suspension and subject to a civil fine of not more than 10,000 dollars for each violation.

APPLICATION FORM

PROJECT NAME:(Brief description of the kind of project proposed)

SECTION 1. APPLICANT DATA

1. Name and address of applicant and applicant's representative (if any).

2. Telephone or telex contact numbers.

3. Evidence of Financial Support for the Project including name and address, and level of financial commitment of major mortgage holders or investors.

4. What is the total budget for the project?

5. Has the applicant done a similar project elsewhere? If so, give location and if the project is still in operation.

6. Has the applicant conducted business in CNMI before? If so, give location and if the business is still in operation.

7. Give address of applicant for the past three years.

8. Have required business licenses, leases or other sanctions needed been acquired? If so, attach copies. If not, give details.

SECTION 2: LOCATION OF PROJECT

1. Provide map showing location of the property, property boundries, and names and activities of neighbors, road names (if present) and other details as listed above.

2. What island is it on?

3. What village (s), if any; Districts (s) if any; Features of the property which make it easily identifiable:

4. Who owns the property?

5. What is the applicant's legal right to use the property? Attach copies of title, lease agreement, or other documents.

6. What alternative sites have you considered?

7. Why did you select this site?

SECTION 3: INFRASTRUCTURE

Water is a difficult problem for the islands and is a limited resource. If your project is a large one needing considerable amounts of fresh water the question of water supply will need to be carefully worked out. If your project fits into this category, a special water report will be required that will show the quantities of water needed each day and seasonal variations in water requirements.

If you plan to drill wells or operate a desalination plant or construct a catchment system detailed plans will have to be submitted along with supportive data and tests.

1. Describe how much drinking water and, if applicable, process water (used for commercial/industrial needs) will be used on the project site (gallons per day). Don't guess, be sure. Include needs for the maximum level of development expected as well as average needs.

2. Describe the size and extent of any water reservoir for the site. A three-day supply is normally adequate.

3. Describe fire-fighting plan. If water is to be used, include details of reservoir (line water is not acceptable for fire-fighting needs) and distribution system.

4. Indicate on the site map exactly where the nearest water main is and exactly where you intend to have the feeder line enter your property, where the water meter will be installed, and the size and type of pipe required to connect to your system (discuss this with DPW if needed).

5. How will you dispose of sewage? Give details of quantity of sewage (gallons per day) expected at maximum development levels.

6. Where is the nearest sewer line to your property? If you intend to hook up to it, indicate exactly on the map where you want to have the feeder line connect, and the size and type of pipe required (discuss this with DPW if needed).

7. Septic tanks must meet certain specifications. Discuss any septic tank plans with DEQ and include location and specifications of your tank and seepage field. What is the nature of the soil where your seepage field will be?

8. How much electricity will you use a day? (KWH/day)

9. Indicate on the site map the location of the nearest power line and where, exactly, you would like the feeder line to connect to your property. Include details on the voltages needed, location of the meter, and any unusual demands (such as high surge levels on start-up or irregular variations in use).

10. Will you have emergency or auxiliary power? Give details.

SECTION 4: ENVIRONMENTAL IMPACTS

1. Describe existing vegetation at the site:

Tangan-Tangan _____%	Grasses _____%
Coconut Trees _____%	Shrubs & Vines _____%
Mixed Woods _____%	Other:

2. How much of the area will be cleared? _____%

3. How many trees of what types will be removed?

4. Describe the proposed landscaping and planting design. Provide drawings and maps is necessary to explain. We are concerned with the need to rapidly recover the ground to prevent erosion and improve the appearance of the area.

5. Will the project extend to within 150 feet of the mean high water mark? If so, remember that the project must not prevent public access to and along the shoreline.

6. List activities which will take place on the site or on the island because of the project. Be specific and detailed, we need to know what people will be doing, what machinery or vehicles will be operating, and where these activities will go on because of the project.

7. What construction activities will take? Give a detailed list of each step of the construction process and what kinds of equipment will be used. Include any temporary structures such as field toilets or materials storage which will be on the construction site.

8. If there will be any excavation or earth moving, list the equipment to be used, the kind of soil or substrate being moved, and exactly where this will be placed or otherwise disposed of.

9. Any excavation requires an erosion control plan. In many parts of the islands it is undesirable to begin land clearing and excavations during the rainy season. Provide a detailed copy of the erosion control plan and a time schedule for land-clearing and excavation. We are concerned with muddy water washing off into the lagoon during storms.

10. Dredging and Filling is generally discouraged (see priorities and standards Section 9, B of the Rules and Regulations). A U.S. Army Corp of Engineers permit is required for any activities below the mean high water line. Except for minor maintenance activities, a detailed Environmental Impact Statement will be required for dredging or filling projects.

Does your project include dredging or filling in wetlands or below the mean high water mark? If so, consult with CRMO on the EIS needed.

11. Will there be any discharges or effluents produced from the project? Show the exact location of any discharge pipe and the nature and amount of the effluent which will be discharged. Include any cleaning agents or other substances which might be discharged and the estimated temperature of the discharge.

12. Will the project generate any discharges into the air such as smoke or fumes or odors? If so, show location and the kind of discharge anticipated.

13. Will there be any loud or objectionable noises associated with the project? Divide this answer into the construction phase (Pile Driving, Blasting, etc.) and the operational phase (heavy machinery, loud music, etc.).

14. Are there any obvious historic sites on the property?

SECTION 5: ECONOMIC AND CULTURAL IMPACTS

1. List the types of employment and the qualifications needed for these positions you expect the project to generate. Be specific and include the number of employees needed for each position and proposed salaries.

2. What materials will you need to purchase during construction and will you provide bids, import the materials, or buy them locally?

3. What materials will you need to supply the project with during operation? Will you let bids, import the materials, or buy them locally?

4. What services will you require for the project? Will you hire local firms, import labor, or employ people locally?

5. Will your project increase business opportunities on the island? If so, list what businesses you anticipate seeing develop. Would you be able or interested in assisting with such development?

6. Will your funding and loans come from local banks or from off-island?

7. Will your earnings come from off-island or on island sources?

8. Will the project result in a product which is exported? Give details on this product and levels of export expected and the national markets involved.

9. Will the project otherwise bring funds onto the island or increase local generation of funds?

10. Please provide a detailed breakdown of expected imports and exports during operation and an estimate of monetary flow.

11. Will you conduct job training activities? If so, please provide details.

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