DAMES & MOORE

FINAL REPORT
CUMULATIVE IMPACTS IN ALASKA: WHERE THEY OCCUR AND HOW AGENCIES AND DISTRICTS ADDRESS THEM

GROUP DISCUSSION PROJECT

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SEPTEMBER 29, 1995

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GROUP DISCUSSION PROJECT

Prepared for

Office of the Governor
Division of Governmental Coordination
240 Main Street, Suite 500
Juneau, AK 99811-0030

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Prepared by

DAMES & MOORE, INC.
5600 B Street, Suite 100
Anchorage, AK 99518

Project Manager, Alison L. Smith
(907) 562-3366

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EXECUTIVE SUMMARY

The Alaska Coastal Management Program established standards and guidelines for local coastal planning and review of proposed development projects in Alaska's coastal zone. The Alaska Coastal Management Act refers to cumulative impacts (CIs) and calls for consideration of CIs of development. The multi-year CIs Project was designed to define the problem, identify how other states have approached the problem, and to describe the legal authorities. One phase of the 1995 project included a formal individual survey of state agency and coastal district (district) personnel in order to assess the methods presently used to identify, consider, and control CIs of growth and development. The Group Discussion component (this report) of the CIs Project is intended to complement the individual survey portion completed in June, 1995 by HDR Engineering, Inc. (HDR).

The group discussions provide an additional perspective to the questions asked in the HDR survey, explore alternatives to better address CIs, and attempt to build bridges among agencies in order to develop a common understanding of CIs. Thirty-six state agency and district representatives participated in seven intra-agency and districts meetings. The one interagency/ districts meeting was attended by thirteen participants.

When asked to identify locations of CIs, the intra-agency and districts participants came up with examples throughout the state, but primarily in the more populated regions. Some impacts, such as sanitation problems and recreational and subsistence conflicts, occur in rural areas.

All participants were able to identify statutes and regulations which provide direction for addressing impacts. Most named several other tools currently used to address CIs. There was consensus that there are many existing tools which allow CIs to be analyzed and planned for, but there was no consensus on how effective these tools are. The main reasons for failure of these tools in the cases discussed were that they are not adequately addressing CIs, are not being implemented, the agencies have not been trained in their application, or politics have intervened in those cases where appropriate solutions have been proposed and consensus gained.

A general approach to addressing CIs was developed during the interagency/districts meeting. The basic approach involves encouraging addressing CIs in local planning and appropriate revisions to plans; updating statutes and regulations to address CIs; project reviews; monitoring and compliance activities; and establishment of an interagency team to re-review the projects when unforeseen impacts are discovered. Public education and participation are essential in local planning, revisions to plans, and project review.

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LIST OF ACRONYMS AND ABBREVIATIONS

AAC	Alaska Administrative Code
ACMA	Alaska Coastal Management Act
ACMP	Alaska Coastal Management Program
BBCRSA	Bristol Bay Coastal Resource Service Area
BMPs	Best Management Practices
DCED	Department of Commerce and Economic Development
DEC	Alaska Department of Environmental Conservation
DFG	Alaska Department of Fish & Game
DGC	Alaska Division of Governmental Coordination
DNR	Alaska Department of Natural Resources
DOT&PF	Alaska Department of Transportation and Public Facilities
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIs	cumulative impacts
COE	U.S. Army Corps of Engineers
CSI	cumulative and secondary impacts
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FPA	Forest Practices Act
FS	U.S. Forest Service
KPB	Kenai Peninsula Borough
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
PCBs	polychlorinated biphenyls
PSD	Prevention of Significant Deterioration
TMDL	total maximum daily load
USFWS	U.S. Fish and Wildlife Service

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1.0 INTRODUCTION

1.1 BACKGROUND

The Alaska Coastal Management Program (ACMP) established standards and guidelines for local coastal planning and review of proposed development projects in Alaska's coastal zone. The Alaska Coastal Management Act (ACMA) refers to cumulative impacts (CIs) and calls for consideration of CIs of development. The multi-year CIs Project was designed to define the problem of addressing CIs, identify how other states have approached the problem, and to describe the legal authorities. One phase of the 1995 project involved surveying state agency and coastal district (district) personnel in order to assess the methods presently used to identify, consider, and control CIs of growth and development. The Group Discussion component of the CIs Project is intended to complement the individual survey portion completed in June, 1995 by HDR Engineering, Inc. (HDR).

1.2 PROJECT DESCRIPTION

The purpose of this component of the CIs Project was to hold group discussion meetings among state agency and district personnel to learn more about where CIs occur, what causes them, how CIs are addressed, potential solutions to better address CIs, and if a regulatory definition of CIs is needed. The group discussions were designed to provide followup to a report produced by HDR as part of the broader effort to deal with the issue of CIs. The HDR report resulted from a formal telephone survey of state agency and district personnel. The survey was an attempt to identify what CIs are occurring and where, how districts and agencies currently address them, and to evaluate the overall effectiveness of existing techniques, as well as provide suggestions and recommendations on how to further address the issues. The group discussions addressed in this report provide an additional perspective to the questions asked in the HDR survey, explore alternatives to better address CIs, and attempt to build bridges among agencies to develop a common understanding of CIs.

This project involved interactive discussions on what districts and agencies see as the on-the-ground issues related to CIs and what can be done to better address them both within and outside of the ACMP. The participants included: the Departments of Natural Resources (DNR), Environmental Conservation (DEC), Fish and Game (DFG), Commerce and Economic Development (DCED), and Transportation and Public Facilities (DOT&PF); the Division of Governmental Coordination (DGC); and the coastal districts. Each agency and the districts conducted their own internal group discussions, and a interagency/districts meeting was held to

share the results, determine areas of agreement and disagreement, and explore possible approaches for addressing CIs.

1.3 PERSPECTIVES OF GROUP MEETINGS PARTICIPANTS

The six state agencies and the coastal districts all bring different perspectives to the group discussion project. DNR's mandate is to promote the wise use of the state's land and resources, and they acknowledge development of resources does result in unavoidable impacts to qualitative values. The functions and mandates of DFG and DEC are to enhance and protect fish and wildlife populations and habitat and to protect land and resources from various forms of pollution, respectively. DOT&PF develops transportation infrastructure for communities, creating positive and potentially negative impacts in the process. DGC, a coordinating body, has an interest in seeing that statutes and regulations are properly implemented. DCED, as a development-oriented agency, looks at CIs in the context of how they slow development and diminish economic opportunities. The districts represent local (district-wide) interests, which, in Alaska, can include a wide spectrum of values.

An agency's mandate affects how they define CIs and dictates their approach to identifying and addressing CIs. What an agency or one segment of a community considers a positive impact (benefit) may be considered a negative impact (detriment) by other agencies or segments of the community.

1.4 ORGANIZATION OF DOCUMENT

This report describes results of the group discussions. The following topics are covered in this report.

- Section 2 describes project methodology and why this approach was used (purpose and objectives of informal group discussions), the roles of group participants, project management team, and consultant, and the format for agency and district meetings.

- Section 3 includes an overview of the intra-agency and districts and interagency/districts meetings and provides a synthesis of the group meeting summaries.

- Section 4 identifies common themes and areas of disagreement regarding addressing CIs that emerged from the group discussions.

- Section 5 describes a proposed approach for addressing CIs developed in the interagency/districts meeting.

- Section 6 provides an evaluation of the value of the informal group discussions as a method for addressing issues of concern to ACMP participants.

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2.0 METHODOLOGY

This section describes the project methodology and why this approach was used; the roles of group participants, project management team, and consultant; and the format for the meetings. This chapter also explains how the information derived from the group meetings was used.

The project involved informal group discussions within state agencies and districts and a final group discussion with representatives from the participating state agencies and two districts. The meetings were held to increase understanding of issues both within and outside the ACMP about hurdles in addressing CIs. These group discussions were documented and a summary of the perspectives of participants was written.

An agenda for the intra-agency and districts meetings was developed by the Cumulative Impacts Project Management Team. The agenda is included in Appendix A. The emphasis of the intra-agency and districts meetings was to explore CIs with discussions of actual impacted sites to gain a better understanding of cumulative impact problems and issues. Each management team member was responsible for distributing the intra-agency or districts meeting agenda to the participants from their agency or the districts, and for facilitating the meeting.

The participants were expected to prepare for the meeting by thinking about specific sites where there are issues or problems involving CIs and to identify those impacts and their causes. In addition, participants were asked to discuss existing procedures, policies, planning processes, and monitoring and compliance programs used to address impacts. They were also asked to come up with other potential solutions based on what was learned from the discussions of specific sites.

The consultant assisted (in some cases) in facilitating the meeting, documented the discussions, prepared a written draft summary of the meeting for review by the appropriate management team member, and finalized the summary. The intra-agency and districts meeting summaries are included in this report as Appendix B.

The agenda for the interagency/districts meeting, held September 8, 1995, was developed by the consultant with input from the Project Management Team. This agenda is included in Appendix A. The revised agenda was distributed to the Project Management Team for their use and conveyance to additional participants from their agencies. The meeting was to be facilitated by the consultant. This meeting was primarily designed to flesh out the areas of consensus and disagreement among the participants and to explore recommendations for better addressing CIs.

A secondary goal was to bring agency and district representatives together to work toward a common understanding of CIs. The summary of the interagency/districts meeting is included in Appendix B.

Most meetings were well attended. There were 36 participants in attendance and 14 teleconference attendees for a total of 50 agency/district representatives participating in the seven intra-agency and districts meetings. The interagency/districts meeting was attended by 13 participants and two consultants. The participants are listed in Section 7.2.

The information from the meeting summaries forms the basis of this report and supports the discussion of areas of consensus and disagreement between agencies and districts. The summaries have been synthesized into the overview presented in Section 3 and the discussion of common themes and areas of disagreement in Section 4.

3.0 INTRA-AGENCY AND DISTRICTS, AND INTERAGENCY/DISTRICTS MEETINGS

This section includes an overview of the intra-agency and districts meetings, the interagency/districts meeting, and provides a synthesis of the group meeting summaries. The main topics include locations of impacts, types of impacts, causes of CIs, and the need and location for a definition.

3.1 LOCATIONS OF CUMULATIVE IMPACTS

When asked to identify specific impacted areas, the intra-agency and districts participants named examples throughout the state, but primarily in the populated and industrial/commercial regions. Some impacts, such as sanitation, recreational conflicts, and subsistence-related CIs, occur in rural areas. Erosion problems along the Matanuska River were identified in several meetings. Other specific sites of CIs were identified in the following areas.

- Municipality of Anchorage (wetlands fill, water and air quality),
- City and Borough of Juneau (wetlands fill, water and air quality, habitat loss, changes in recreational values),
- Kenai River (habitat degredation or loss),
- North Slope (air quality, habitat loss, subsistence),
- Tongass Narrows (intertidal fill),
- Communities throughout Alaska (failed septic systems, water quality, resource use),
- Southeast Alaska - Logging (water quality, loss of recreational values, habitat loss),
- Unalaska Region (water quality), and
- Interior Alaska - Mining (habitat loss, water quality).

3.2 TYPES OF IMPACTS WHICH COULD BE CUMULATIVE

The following listing of specific types of impacts affecting Alaska was developed as a result of the seven intra-agency and districts meetings. The list is not segregated by agency/district because several were mentioned in more than one meeting.

- Erosion
- Water quality degradation
- Habitat changes
- Loss/degradation of fish and wildlife habitat
- Loss of productivity
- Loss of wilderness
- Visual impacts
- Recreation conflicts
- Conflicts of mining/logging with commercial and subsistence fisheries
- Chemical/pollutant releases
- Alteration of local hydrology/flooding
- Habitat fragmentation
- Storm water runoff pattern changes
- Loss of forest land to other uses
- Impacts to the human built environment/loss of structures
- Conflicts between subsistence/ recreational/commercial use of resources
- Soil alteration
- Changes in aquatic habitat
- Air quality degradation
- Terrestrial and groundwater contamination
- Water quality violations (high fecal coliform)
- Loss of nearshore habitat
- Noise
- Loss of transportation corridors

3.3 ACTIVITIES THAT CAN LEAD TO CUMULATIVE IMPACTS

The following listing of specific causes of CIs was developed during the meetings. They are not segregated by agency/district because there were similarities between meetings on the causes of CIs. It is not meant to be all inclusive, but to reflect information brought out in the intra-agency and districts meetings.

- Shortage of flat (buildable) land
- Wetlands fill
- Increasing population/use of resources
- Constructing structures in inappropriate locations
- Removal of vegetation
- Increased use of recreational resources
- User conflicts
- Infrastructure construction to support population and community growth
- Industrial runoff
- Soil alteration from road construction
- Timber harvest (removal of biomass)
- Surface runoff

- Changes in vegetation composition and structure
- Tree blowdowns resulting in fish kills due to lack of shading
- Mining
- Transportation
- Many small fuel spills
- Burning of hydrocarbons for electrical generation
- Use of wood stoves
- Cruise ship exhaust
- Lack of communication between developers and contractors regarding permit stipulations
- Lack of constant agency presence throughout construction
- Lack of permitting
- Lack of consensus about what is enough loss
- Lack of baseline information
- Lack of knowledge about sensitivity of biological systems (threshold criteria)
- On-site sewer systems
- Seafood processing discharges
- Poor plumbing practices
- Lack of maintenance on oil/water separators
- Conflicting uses of waterbodies
- Competition for ocean resources
- Introduction of exotic species
- Genetic impact of ranched versus wild populations mixing and affecting wild population survival in natural streams
- Commercial fishing boat discharges
- Overfishing
- Flight-seeing in wilderness areas
- Log storage
- Log transfer facilities preclude other use of locations
- Inability of agencies to say no to more fill
- Mining tailings disposal
- Road construction and lack of maintenance
- Placer mining
- Oil field displacement of subsistence activities

3.4 EXISTING TOOLS USED TO ADDRESS CUMULATIVE IMPACTS

All participants were able to identify at least one statute which provides direction for addressing impacts. Most named several tools currently used to address impacts, with DGC producing a lengthy list comprised of statutes, procedures, policies, planning processes, and monitoring and compliance. Table 3-1 lists these tools by agency. There was agreement that there are many existing processes for analysis of impacts and proactive planning. The reasons given for failure of these tools in the cases discussed were that the tools were not being implemented, the agencies have not been trained in their application, or politics have intervened in those cases where appropriate solutions have been proposed and consensus gained. In some cases, agency authorities (tools) do not reach through the necessary levels to get to issues which could be addressed through local land use planning. A number of participants stated that the existing tools are not sufficient, even if implemented fully.

TABLE 3-1
EXAMPLES OF MANAGEMENT GUIDANCE AND IMPLEMENTATION MECHANISMS[1]

Tools Agency	Statutes	Procedures	Policies	Planning Processes	Monitoring & Compliance
Coastal Districts	Clean Water Act, ACMP	Section 404, Title 16, local wetlands permitting, park use, floodplain, 401		ACMP District Plans, Comprehensive Planning, Wetlands Management Planning, Title 29, Capital Improvement Planning, rezonings, variance reviews, drainage improvement plans, watershed management, U.S. Forest Service (USFS) Management Plans, DNR Area Plans	Under 404, permits
DNR	Forest Practices Act (FPA), Senate Bill 308 (1994), House Bill 169 (1995)	AS 38.05.035 Decision-Making Process, Project Scoping, Public Notice and Involvement Process, Shellfish Farm Permitting Program, permit review	DOG "G List", Professional Judgement	Planning under the FPA, Pre-project Planning, Reclamation Planning	
DEC	National Environmental Policy Act (NEPA), ACMP, Clean Air Act (CAA)	ACMP Review Process, Plan review, permit review, Interagency review groups, total maximum daily load (TMDL), CAA Title V Major Source permitting, Prevention of Significant Deterioration (PSD) Project Review, Subdivision review, Best Management Practices	Education of contractors		Sampling programs, monitoring under the PSD program/air quality, monitoring of contractors on large projects, funding necessary for monitoring throughout life of long-term projects

TABLE 3-1 (Cont.)
EXAMPLES OF MANAGEMENT GUIDANCE AND IMPLEMENTATION MECHANISMS[1]

Tools Agency	Statutes	Procedures	Policies	Planning Processes	Monitoring & Compliance
DGC	FPA, ACMP, Clean Water Act (Section 404)	Aerial photo comparison, wetlands fill permitting, Best Management Practices under FPA, stipulations on federal timber sales, National Pollutant Discharge Elimination System (NPDES) point and non-point source permitting, batch processing mariculture permits, TMDL, DEC General Permit for float camps	Informed consent policy of Corps, DFG interdisciplinary team for early involvement in NEPA reviews, professional judgement	Municipal Planning, USFS forest plans, Areas Meriting Special Attention plans, Harbor Management Plans, Plans of Operations for Mining, DNR area plans, regional hatchery plans, Municipal Comprehensive Plans	USFS area-wide monitoring, NPDES monitoring, ADEC water quality monitoring in timber harvest areas, enforcement
DCED	ACMP, NEPA		User fees	Title 29 powers-land use planning	
DOT&PF	NEPA		CEQ Guidelines		
DFG	Resources Planning Act, National Forest Management Act, NEPA, Clean Water Act (Section 404), Endangered Species Act	DNR permitting			

1 The above mechanisms were identified in the context of the discussions on specific sites and geographic areas, the table is not intended to be a comprehensive list of all existing mechanisms.

3.5 DEFINITION AND ITS LOCATION

The discussion of a CI definition took place at both the intra-agency and districts meetings and the interagency/districts meeting. Because there was an evolution of opinion on this issue, the results of the meetings are presented in the following two subsections.

3.5.1 Intra-agency and Districts Meetings

Almost everyone participating in these meetings agreed that a definition is necessary in regulation. Table 3-2 illustrates the various opinions regarding a regulatory definition by agency. DCED disagreed with developing a definition in Alaska law or regulation because one already exists in federal regulation. They thought that another regulation is probably not necessary and additional regulations would tend to constrain an agency's ability to operate.

TABLE 3-2
IS A DEFINITION OF CIs NECESSARY?

Agency	Definition necessary?	In ACMP?	Comments
CD	Yes	Yes	The local perspective needs to be integrated into any definition. If a definition is adopted into the ACMP, it should allow districts to further define and develop a framework at the local level.
DNR	Yes	No	The definition has to mesh with current DNR processes. Analysis parameters need to be defined to prevent law suits, but not so strictly as to reduce flexibility. DNR's authorities go beyond the geographic boundaries of the ACMP.
DEC	Yes	Yes	There needs to be a regulatory definition of adverse CIs. The ACMP would contain a minimum standard and the agencies and districts could refine the definition to apply to their responsibilities and to local interests.
DGC	Yes	Yes	A definition would need to describe the kinds of CIs, geographic scope, watershed, time period, as parameters for project analysis.
DCED	No	N/A	A definition is already in federal regulation. More regulations just constrain agencies ability to operate.
DOT&PF	Yes	Yes	A definition would have to be consistent with the federal CEQ guidelines/definition.
DFG	Yes	Yes	CIs need to be defined in regulation and the ACMP should be used for a place to house guidelines.

The district participants felt that a definition is necessary and thought that if a definition is incorporated into the ACMP planning regulations, it should allow districts to further define and develop a framework at the local level to reflect the local perspective and value system. DEC felt that land management agencies should be the driving force in controlling CIs. DGC commented that a definition would limit the ability of the court system to define the term through case law, and that it would provide sideboards for consideration of CIs during project reviews, resulting in fewer arguments within and among permitting agencies.

DNR's perspective on the need for a definition was not consistent among the divisions. Some divisions believe that without a specific definition and guidelines, the agency is open to litigation, with the courts proceeding to define the parameters involved in the definition. Some believe no definition is necessary because a specific definition of parameters would take away flexibility they believe is necessary to be effective.

All those who agreed a definition is necessary, except DNR, think it should reside in the ACMP regulations. The divisions within DNR do not agree among themselves that a definition in regulation is necessary, but those who do agree that DNR has administrative authorities which extend beyond the ACMP, and DNR's physical authorities cover the entire state, not just the coastal zone. According to DNR, the agency with authority to implement change is where management of CIs should rest. DNR does not want to see development of another system to deal with CIs, adding another layer to the already unwieldy permitting process. The current framework should be sufficient.

DOT&PF believes that a definition is necessary and they routinely work under the definition specified in the Council on Environmental Quality (CEQ) regulations. These regulations are implemented via the National Environmental Policy Act (NEPA) review process.

Some participants feel that the CEQ definition would be sufficient, but there is a body of case law that would not be included if the State adopted the federal definition.

3.5.2 Interagency/Districts Meeting

The group was not able to come to agreement on whether a definition of CIs is necessary in regulation or statute. Most leaned away from the establishment of a definition in ACMP statute or regulation. While DNR's perspective of the need for a definition was not consistent among divisions, Division of Lands (this meeting's participant) maintains that no definition is necessary, and that other state programs already provide for consideration of impacts, including those which

may be cumulative. A specific definition would take away flexibility they believe is necessary to be effective.

The districts participants felt that a definition is necessary which should allow districts to further define and develop a framework to reflect the local perspective. One district participant felt that a NEPA-like process in state regulations would provide a forum for discussion on a project-specific basis for the agencies and districts.

DCED felt that there should be an advisory that CIs should be "considered" but that any guidance should be free of jargon and understandable. They do not want another layer of regulation when there is already a definition in federal regulation.

One DGC participant felt that guidance and legal direction are both needed for consideration of CIs, but not necessarily in definition form. This could possibly take the form of an ACMP standard which could give specific direction to districts and agencies. Another DGC participant felt that it would be nice to have a definition which could be embellished by districts and individual agencies and warned that, in the absence of a definition, the courts will eventually proscribe how CIs are to be addressed.

DFG wondered why a definition should be established for CIs when the term is not used or is infrequently used in the ACMP statute and regulations. They asked why an ACMP definition should be developed without clear, substantive guidance in statute or regulation to consider CIs. They also commented that the relationship of an ACMP definition to other authorities would need to be evaluated. DEC felt that the federal definition should be adopted. DOT&PF already addresses CIs through the NEPA process and has maintained that activities under the ACMP are also subject to NEPA and therefore the CEQ definition of CIs.

4.0 IDENTIFICATION OF COMMON THEMES AND AREAS OF DISAGREEMENT

Section 4 identifies common themes and areas of disagreement specifically related to locations, types of CIs, and causes of CIs that emerged from the group discussions. Also discussed are current tools used by districts and agencies to address CIs, as well as additional suggested approaches.

4.1 LOCATIONS AND TYPES OF CUMULATIVE IMPACTS

There was general consensus that CIs occur primarily in urban areas and localities where commercial and industrial activities take place. Some impacts, however, occur in rural areas and result from activities such as sanitation, recreation, subsistence, and timber harvesting. In terms of distribution, CIs occur across the state and in every region. Some types of CIs are common across regions regardless of how they are measured.

DOT&PF and DCED have different perspectives on CIs from the resource agencies, DGC, and the districts. DCED commented that they perceive CIs as they relate to conflicting uses, such as log transfer facilities versus mariculture. Locational aspects of CIs therefore relate to one economic activity competing with another. DOT&PF's perspective results from being in a situation where their agency is proposing projects and they have very specific regulations to follow due to federal funding of their projects. Those regulations require DOT&PF to determine significance of possible impacts which can be based on location. The resource agencies, DGC, and districts identified locations of CIs (DNR uses the term "impacts") as those areas experiencing growth of the human population and industrial/commercial activities. Also identified were areas where harvesting occurs, specifically timber harvest.

All participants agreed that CIs are real and listed types of CIs. Most agreed that CIs are not being addressed in a manner which achieves any noticeable goal. DNR believes that most CIs (considered "impacts") are adequately addressed by their current review processes. Issues related to large projects tend to get attention and are addressed due to public interest but some may not be adequately addressed. Smaller projects tend to get passed over, or not reviewed at all, but many small projects can add up to substantial CIs.

4.2 ACTIVITIES THAT CAN LEAD TO CUMULATIVE IMPACTS

4.2.1 Generic Causes

The following generic causes of CIs were abstracted from the intra-agency and districts meetings.

Infrastructure Development: Infrastructure includes docks, wetlands fill, roads, bridges, sewer and water systems and associated outfalls, log transfer facilities, and other community support facilities.

Industrial Development: Development of facilities to support industries such as oil and gas, seafood processing related facilities, and electrical generation can lead to numerous facilities in a specific location resulting in CIs.

Human Disturbances: Damage to the human-built environment (buildings, bridges, etc.) results when construction occurs in inappropriate locations. The CIs of this type of development have a different kind of negative impact (e.g., economic) and are impacts which need to be dealt with at the local level.

User Conflicts and Increasing Use of Remote Areas: Conflicts can develop over use of remote areas when users have competing expectations. Use of remote locations by boaters, commercial and sport fishers, and other recreationalists is increasing and is creating a reduction in the quality of the wilderness experience. Conflicts can also occur between recreational and subsistence activities and use of resources.

Resource Extraction, Exploitation, and Use: This topic includes mining for minerals and construction materials, oil and gas, fisheries, agriculture, and forest harvest. Numerous fish processing facilities at a location or several mines in one watershed can lead to CIs due to overuse of the area.

4.2.2 Complicating Factors

Resource agencies, DGC, and districts representatives described factors which frustrate their ability to address CIs. These factors were discussed in the interagency/districts and intra-agency and districts meetings and are listed and discussed below.

Lack of clarity in statutes and regulations: DFG, DEC, DGC, and the districts agreed that there is currently a lack of statutory/regulatory authority for addressing CIs. DOT&PF firmly disagrees that there is no guidance and has described a process of identification of significant impacts, and analysis of CIs as a subset under those impacts, through the NEPA process. DNR looks at impacts through their existing statutory and regulatory processes, such as Alaska Statutes 38.05.035 Decision Making Process, which describes the issue identification, public involvement, and project analysis process DNR uses to analyze potential permitting and project approval actions. They say most of the problems in development of resources deal with qualitative impacts which are difficult to quantify.

Lack of monitoring and compliance activities: All participants agreed by the end of the interagency/districts meeting that not enough monitoring and related compliance activities are funded or conducted. These activities need to be realistically designed and be tied to specific standards or regulations.

Lack of baseline information for understanding causes and effects of CIs specific to a location or resource: Baseline information is necessary to develop an understanding of impacts to resources. DEC, DFG, DGC, and the districts agreed that scientific baseline information provides a basis for defining biological attributes. This information can then be used for establishing thresholds.

Lack of regulation or review of some activities: DEC specifically stated in the intra-agency meeting that numerous smaller activities which may build up to CIs are not required to go through agency review. Some of these activities are on the A and B lists to expedite permitting and go through little or no agency review. In the interagency/districts meeting most agencies, except DEC, agreed that more types of projects need to be included on the A and B lists. This is a significant disagreement between agencies. DEC, however, also pointed out that General Permits (GP) for routine activities can increase control by specifying best management practices and stipulations on activities covered by the GPs.

4.3 APPROACHES TO ADDRESSING CIs

4.3.1 Current Approaches

Table 3-1 presents approaches currently available for use in addressing CIs at the state and district levels. These were identified in the intra-agency and districts meetings as current processes for addressing CIs. These processes consist of existing statutes and regulations utilized as guidance on how to use tools such as procedures, policies, and planning processes.

4.3.2 Other Suggested Approaches

Table 4-1 lists other approaches suggested by agency and districts participants during the intra-agency and districts meetings. Each topic was proposed as a method for addressing impacts and, more specifically, CIs.

Permitting Checklist: A permitting checklist could consist of a one-page description of issues which need to be addressed in each review. DEC and DGC both mentioned use of a checklist in the initial stages of project review as a way to ensure consideration of the range of issues related to CIs. DOT&PF already uses a checklist as part of their NEPA environmental review process.

Land Use Planning: Most participants agreed that CIs are best addressed through the planning process. This may include comprehensive planning, coastal district planning, or other state, regional, and local level efforts. Agencies should participate in plan review and revision to ensure consistency with statutes and regulations, as well as the enforceability of policies.

Best Professional Judgement: An approach should be developed to agree upon the use of "best professional judgement" to estimate biological thresholds. In the case of most biological systems, there is often no measurable indication of an adverse impact (or many) until the system crashes. Impact avoidance and minimization is much more effective and cost efficient in protecting habitat than attempting to reverse damage once it has occurred. DFG and DGC felt that allowing professionals to use their judgement and experience in projecting impacts during project review would be an appropriate method of addressing CIs.

Agency Training: Agencies need to train personnel in their departments overall authorities and develop a knowledge base within their staff. Additional training would result in better communication, enabling more up-front exchange of information and a clearer understanding of projects and their impacts. DCED thought that staff training in meeting facilitation and conflict resolution would improve agencies' ability to present information and develop consensus.

Public Education/Involvement: DFG, DNR, and DGC all agree that local understanding and support is a necessary component of any approach to dealing with CIs, whether through involvement in local planning or input into project review. The key to success is to develop support for any suggested methods for addressing CIs within the local community. Local education can also produce a populace that understands CIs, knows how to identify them, and has a positive input into the process to prevent or control them.

TABLE 4-1
SUGGESTED APPROACHES TO ADDRESSING CIs

Issue	CD	DNR	DEC	DGC	DCED	DOTPF	DFG
Permitting Checklist			✓	✓		✓	
Land Use Planning/Agency Participation	✓		✓			✓	✓
Best Professional Judgement				✓			✓
Agency Training		✓			✓		✓
Public Education/ Involvement		✓		✓			✓
Periodically Review and Update Plans/Agency Participation	✓		✓				✓
Holistic Approach/ Interagency Working Groups	✓	✓	✓	✓			✓
Identify Development Thresholds				✓	✓	✓	✓
Address CIs on Sub-Area Basis	✓						✓

Periodically Review and Update Plans/Agency Participation: Local plans should be periodically evaluated and updated to reaffirm or modify goals and objectives, and update enforceable policies to reflect changes. Agencies should participate in review of updates to ensure consistency with statutes and regulations, as well as enforceability of policies.

Holistic Approach/Interagency Working Groups: A holistic view could be developed from early identification of issues and public involvement and comment. Interagency working groups were identified as one approach. These could provide for pre-planning and information sharing, analysis of potential projects from many viewpoints and areas of expertise, and coordination of the permitting process.

Identify Development Thresholds: Development thresholds are a level of development that a community has decided beyond which impacts from additional development are unacceptable. Development thresholds could be implemented at the community level to give developers predictability. Threshold criteria for biological systems are difficult to identify, however, and once you have developed a threshold, there needs to be clear guidance on how to proceed. A

legal mandate, such as the ability to stop development or specify a maximum number of projects in a certain area, would need to be in place for action upon reaching the threshold. Until a substantive legal requirement exists, however, no matter how good the CI analysis is, the political pressures for jobs and economic development will continue to make control of CIs ineffective. DOT&PF commented that this process is already carried out via their review process and that it is contained in regulations in the CEQ "significance test."

Address CIs on a Sub-Area Basis: DFG stated in their intra-agency meeting that addressing CIs on a project-by-project basis is a recipe for habitat loss. A proactive approach would involve identifying the values of a region or area (possibly defined by watershed), establishing development and protection goals for the area, and determining the mechanisms necessary to successfully implement these goals. Examples include Areas Meeting Special Attention, Harbor Management Plans, and Special Areas Studies.

The coastal districts have found that regional planning does not necessarily address issues in specific areas or sites of concern. CIs are much more effectively addressed on a subarea basis where there are specific impacts that require more specific management direction. For example, the DFG has completed a comprehensive survey of CIs along the Kenai River. Habitat along the river was assessed and existing problems quantified. This study can then be used as a basis for review and analysis of future development proposals along the river.

5.0 PROPOSED APPROACH TO ADDRESSING CUMULATIVE IMPACTS

This section presents a methodology for addressing CIs developed by the participants of the September 8, 1995 Interagency/Districts meeting. The process is first presented in outline form, then each step is described in detail, with comments from participants.

5.1 APPROACH FOR ADDRESSING CIs

I. Encourage Consideration of CIs in the Planning Process
II. Update Statutes and Regulations as Needed
III. Project Permitting Reviews
IV. Monitoring and Compliance
V. Unforeseen CIs

5.2 DISCUSSION OF PROPOSED APPROACH

5.2.1 Encourage Consideration of CIs in the Planning Process

It was the general consensus of the group that addressing CIs at the state level is difficult. CIs are best addressed at the local level during planning. Local implementation could be through planning, local land use regulations (Title 29) because those who live in an area best know its resources and where they are willing to compromise, project review (possibly through a checklist used by the coastal district), and through site specific assessments such as the DFG Kenai River Study. Tools available at the local level include the ACMP and comprehensive plans, as well as limiting development via zoning and local land use controls.

Several recommendations came out of this portion of the discussion. Ensuring that any changes in plans do not conflict with other applicable plans is crucial. Public education and information needs to occur concurrent with plan revisions in order to bring the public into the decision-making process. The public has to understand what CIs are and how to identify them, in order to assist planners to pro-actively address CIs. Guidance would include techniques on how to look for use conflicts, analyzing the sensitivity of where permits are being issued, and listing types of activities known to cause CIs. The amendment process for district plans should be streamlined due to a long time frame. Getting stakeholders involved can reduce or even prevent lawsuits.

The potential for failure is great if clear implementation mechanisms are not available or developed. Objectives need to be clearly stated. Enforceable policies should be written so that permit stipulations can be based upon them and written clearly so as to be enforceable. Lack of funds for compliance and monitoring will reduce the effectiveness of any system or process. Agencies also need to be brought into the plan revision process so that plans are not at odds with state and federal statutes and regulations. Different levels of plans should be coordinated, i.e., use a strategic coordinated review approach. Internal agency training would improve implementation of district, local and state-wide plans.

5.2.2 Update Statutes and Regulations As Needed

If an agency does not have a adequate authority to address CIs, then they need to pursue changes in their statutes and regulations. Interagency planning should be conducted to result in coordination of agency plans.

DEC participants thought DEC might only need to develop a guidance document, in the form of a mission statement, to bring together the appropriate portions of their enabling legislation and regulations.

5.2.3 Project Permitting Reviews

Using local plans as guides for permitting ensures local expertise and opinions are considered in reviews. Public information, participation, and education is an integral component of project review through input from districts. A dialog needs to be established in "plain English." Avoid the use of jargon, e.g., cumulative impacts. The education process should include information required by the lay person to be able to participate in identifying CIs.

Early participation in and discussion of potential projects by agencies and districts is important. This can allow for discussion of project impacts early in the review process. Coordination of the many parts of reviews, as well as follow-up modifications reviews, can also ensure that CIs are considered in project reviews. DGC suggested using a strategic approach for different levels of review which may allow for more attention being paid to the more complex projects where there is a possibility of CIs developing. For large projects, there needs to be more upfront planning and issue identification. A mechanism to filter out hot spots at state, regional, and local levels is necessary. If there is a related development threshold for that site or area, then

only the specified number of projects would be allowed. There would then need to be an additional mechanism for reassessment to determine whether an appropriate threshold had been established.

Including more routine project reviews on the A and B Lists would free-up reviewers' time for more complex reviews. Coordination of review processes, including timing, such as is done for the NEPA and the U.S. Army Engineer District Section 404 processes, could provide a more comprehensive review of projects and allow for inclusion of CIs analysis at the start of project review.

5.2.4 Monitoring and Compliance

Several participants noted that a significant problem in addressing CIs often lies not with requirements being adequate, but with the agencies' inability to provide adequate monitoring and compliance to enforce the requirements.

Monitoring programs need to be established based on expectations of what agencies can realistically implement. Monitoring requirements need to be based on specific regulations. Coordination of monitoring and compliance visits among agencies can save time and money. Use of a database linking the agencies would improve monitoring.

5.2.5 Unforeseen CIs

If unanticipated CIs show up, an interagency team (including district representatives) would be called together to re-review the site or problem and make recommendations. This would provide a mechanism to bring together the agencies who can then develop an approach to dealing with the problem. Once this interagency team reports their revised approach, it would be taken back to the local level and the local plan revised to address the problem.

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6.0 METHODOLOGY EVALUATION AND RECOMMENDATIONS

This section provides an evaluation of the value of the informal group discussions as a method for addressing issues of concern to ACMP participants.

6.1 POSITIVE ASPECTS OF THE METHODOLOGY

The meeting process complemented the survey approach used in the HDR report.

The participants thought that it was useful for them to hear each other's opinion of the topic in person. It was a positive experience for the agency personnel, discussions are more direct and interplay was very positive. Attendees discovered they were not alone in dealing with CIs. A group discussion allows participants to brainstorm ideas and to discover where participants agreed or disagreed. Meeting with other staff helps to reinforce concepts and to develop the collective agency thought. One participant thought the meeting was "medicinal". Another participant was overwhelmed and somewhat pessimistic about the difficulties involved in defining CIs. Most were appreciative that they had the opportunity to talk about the issue in person and that their perspective could be voiced.

Overall, the process of face-to-face small group discussions is quite valuable in terms of the direct interchange of ideas and information, voicing ones' opinions, and learning about other views within one's agency. This could be a valuable approach for analysis of other ACMP issues as well.

The meetings explored a number of solutions. Several approaches were discussed in the two types of meetings resulting in a proposed approach for addressing CIs.

6.2 LIMITATIONS OF THE METHODOLOGY

Several meetings had teleconference attendees. Since the meetings were supposed to be face-to-face, this was a negative aspect of those particular meetings. Meetings involving teleconferencing left a lot to be desired; it was difficult for teleconference attendees to participate in the discussions. Prior to the end of one of the meetings, all of the teleconference attendees had hung up.

DFG felt that the methodology fell short of fully achieving its goal to develop consensus and identify solutions. DGC feels that a survey is more scientific and allows individuals to speak their minds without repercussions. The survey also reached a larger group of participants. A

possible limitation of group discussions is that a small representation of an agency or the districts could interject their own opinions without relaying the broad spectrum of opinions within an agency or the districts.

ADOT&PF felt that the approach used put a negative aspect on CIs. It commented that "rules of the game" should have been established and the relevance of determination of "significance" identified. Then examples should have been developed in the context of how they should be handled.

6.3 WHAT WAS LEARNED BY AGENCIES AND DISTRICTS?

Several participants learned that they were not alone in their views on CIs. Others learned about different views within their own agency, as well as confirming their own understanding of CIs. Some participants agreed that a face-to-face meeting was an effective way to learn more about CIs and to improve the information base from which they are working.

6.4 FOLLOW-UP

A follow-up in one year was thought to be appropriate. A suggestion was made that more public and agency education be conducted. Glenn Gray said he will track other states 309 program progress. Additional recommendations regarding issues raised in the discussion were provided to Dames & Moore by DFG. These are part of DFG's comment letter dated September 21, 1995 and are included in Appendix C.

7.0 REFERENCES

7.1 BIBLIOGRAPHY

Federal Highway Administration, Project Development Branch, HEP-31, 1992. Position Paper: Secondary and Cumulative Impact Assessment in the Highway Project Development Process.

HDR Engineering, Inc. 1995. Cumulative Impacts in Alaska: Where they Occur and How Agencies and Districts Address Them, Final Report. Prepared for Office of the Governor, Division of Governmental Coordination, and the Cumulative Impacts in Alaska Management Team. Anchorage, Alaska.

State of Alaska, Department of Fish and Game, Habitat and Restoration Division. 1994. An Assessment of the Cumulative Impacts of Development and Human Uses on Fish Habitat in the Kenai River. Technical Report 94-6. Prepared by Gary S. Liepitz. Anchorage, Alaska.

State of Alaska, Department of Fish and Game, Habitat and Restoration Division. 1995. The Continued Assessment and Management of Cumulative Impacts on Kenai River Fish Habitat. Prepared by Glenn A. Seaman. Anchorage, Alaska.

State of Alaska, Department of Natural Resources, Division of Land, Southcentral Regional Office. 1994. Cumulative and Secondary Impacts and The Alaska Coastal Management Program. Prepared by Rob Walkinshaw. Anchorage, Alaska.

State of Alaska, Office of the Governor, Division of Governmental Coordination. 1993. Regulation of Cumulative and Secondary Impacts in Alaska. Prepared by Glenn Gray. Juneau, Alaska.

7.2 PARTICIPANTS

Coastal Districts:

Chuck Degnan, Bering Straits CRSA
Sue Flensburg, Bristol Bay CRSA
Linda Freed, Kodiak Island Borough
Ken Hudson, Matanuska-Susitna Borough
Thede Tobish, Municipality of Anchorage
Harriet Wegner, Kenai Peninsula Borough
Jan Caulfield, C/B Juneau
Beth McKibben, C/B Yakutat
George Owletuck, Cenaliuriit CRSA
Lynn Steen, City of Cordova

Natural Resources:

Rob Walkinshaw
Rick Thompson
Mitch Henning
Dave Wallingford
Kim Kruse
Dick LeFebvre
Al Samet
Kerwin Krause
Janet Burleson Baxter
Ron Swanson

Environmental Conservation:

Fran Roche
Joyce Beelman
Kevin Hanley
Doug Redburn
Jim Baumgartner
Keven Kleweno
Steve Wright
Amy Crook

Governmental Coordination:

Glenn Gray
Kerry Howard
Lorraine Marshall
Gabrielle LaRoche
Chas Dense
Maureen McCrea

Commerce and Economic Development:

Tom Lawson
Wendy Wolf
Veronica Slajer
Dick Swanbank
Mary Marshburn

Transportation and Public Facilities:

Nate Johnson
Bill Ballard
Mike Tinker
Dave Bloom
Jerry Ruehle

Fish and Game:

Wayne Dolezal
Carl Hemming
Don McKay
Glenn Seaman
Janet Schempf
Lana Shea
Dave Hardy

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APPENDIX A

APPENDIX A

AGENDAS FOR THE INTRA-AGENCY AND DISTRICTS AND INTERAGENCY/DISTRICTS MEETINGS

INTRA-AGENCY AND DISTRICT MEETINGS AGENDA

Agency:

Meeting Date:

Meeting Location:

i. Brief Introduction: Attendees & purpose/goals of meeting

ii. Major points of discussion:

A. Using specific sites and examples discuss issues or problems that must be addressed in Alaska. What are the significant impacts in each region of the state?

B. What specifically are the causes of the impacts creating the problem?

C. What existing procedures, policies, planning processes, and monitoring and compliance programs exist to control the causes of these impacts?

i. Use of procedures
ii. Other mechanisms
iii. Consequences of inaction

D. What are possible solutions that should be considered to address the problems or issues that have been identified?

i. ACMP authorities
ii. State agency authorities

E. Is a regulatory definition of cumulative impacts needed? If so, identify why a definition would be helpful and if it would address any of the problems identified during the discussion.

Note: the term "cumulative impacts' is currently included in statutes, regulations and enforceable policies of coastal districts, but not everyone agrees that there is a mandate to consider cumulative impact.

F. Wrap up/conclusions

CUMULATIVE IMPACTS IN ALASKA: WHERE THEY OCCUR AND HOW AGENCIES AND DISTRICTS ADDRESS THEM
GROUP DISCUSSION PROJECT

INTERAGENCY/DISTRICT MEETING AGENDA

I. INTRODUCTION

1. BRIEF Background and Project Description

   A. Project Methodology
   B. Purposes and objectives of informal group discussions

      i. Purpose of project: to learn more about where cumulative impacts occur, their causes, how agencies address them, possible solutions to better address them, and whether a regulatory definition is needed.
      ii. Meetings were held to increase internal agency understanding of cumulative impacts issues.
      iii. Identify areas of consensus and disagreement among agencies and districts.

II. DISCUSSION

1. Common themes, areas of agreement and disagreement

      i. Range of types of Cumulative Impacts — What are they?

      ii. Variety of causes

      iii. Discuss existing procedures, policies, planning processes, and monitoring and compliance programs: are they adequate, if not, what then?

      iv. How can the state improve its approach to considering cumulative impacts? Is a definition of cumulative impacts necessary, if so, where should it be located?

III. RECOMMENDATIONS

1. Develop a list of realistic recommendations.
2. Should there be any follow-up to this project? If so, discuss format.

IV. GROUP DISCUSSION METHODOLOGY EVALUATION

1. What are positive and negative aspects of the intra-agency/district and interagency/district group discussions methodology?
2. Has your agency/district learned from the group discussions? If so, elaborate.

APPENDIX B

APPENDIX B

INTRA-AGENCY AND DISTRICTS AND INTERAGENCY/DISTRICTS

MEETING SUMMARIES

TABLE OF CONTENTS

COASTAL DISTRICTS

MEETING SUMMARY

July 28, 1995

LOCATION: Dames & Moore Conference Room

ATTENDEES:

Chuck Degnan, Bering Straits Coastal Resource Service Area (CRSA)
Sue Flensburg, Bristol Bay Coastal Resource Service Area (CRSA)
Linda Freed, Kodiak Island Borough
Ken Hudson, Matanuska-Susitna Borough
Thede Tobish, Municipality of Anchorage
Harriet Wegner, Kenai Peninsula Borough

TELECONFERENCE ATTENDEES:

Jan Caulfield, C/B Juneau
Beth McKibben, C/B Yakutat
George Owletuck, Cenaliuriit CRSA
Lynn Steen, City of Cordova

CONSULTANTS:

Alison Smith, Dames & Moore
Gwendo-Lyn Turner, Dames & Moore

1.0 INTRODUCTION

Sue introduced all the attendees once the teleconference operator connected all the lines. She explained that the purpose of the meeting was to provide a followup to the HDR Report as part of a broader effort to deal with the issue of cumulative impacts. The HDR Report resulted from a formal survey that was conducted by telephone. The survey was an attempt to identify where cumulative impacts (CIs) were occurring or may likely occur, what districts and agencies have done to address them, and to evaluate the overall effectiveness of those techniques and provide suggestions and recommendations on how to further address and deal with the issue. A different approach was taken with this group discussions project. It involves an interactive discussion on what districts and agencies see as the on-the-ground issues related to cumulative impacts and what can be done to better address them both within and outside of the Alaska Coastal Management Program (ACMP). Other agencies will be conducting their own internal group discussions, and then an interagency/district meeting will be held to share the results and to determine areas of agreement and disagreement. Linda and Sue are facilitators for this meeting, to keep it free-flowing and interactive. The emphasis is to explore CIs with actual sites and peel off the layers as best as possible to gain a better understanding of cumulative impact problems and issues from a district perspective.

Sue asked for five minute overviews of the projects/sites which each person wanted to discuss. The basic information to be presented by each coastal district representative should include:

- A brief description of the site or project;
- Significant impacts of each site of concern and why;
- Specific causes of impacts identified;
- Existing procedures, policies, planning processes, and monitoring and compliance programs that exist to control the causes of these impacts, and why they were or were not used; and
- Why the mechanisms were successful or unsuccessful.

Several examples would be chosen for more detailed analysis. Finally, there was to be a discussion of possible solutions to address the problems identified including whether a regulatory definition of cumulative impacts is needed.

2.0 DISTRICT PROJECTS

2.1 THEDE TOBISH, MUNICIPALITY OF ANCHORAGE

Issue: Klatt Bog has undergone loss of critical wildlife habitat, alteration of local and bogwide hydrology, habitat fragmentation, local water quality degradation, and storm water runoff pattern changes. The central core of the bog was identified as critical wildlife habitat by U.S. Fish and Wildlife Service (USFWS) and, due to development, the viability of the habitat has been compromised. It is an area with obvious CIs. Drainage changes as a result of past influences and degradation of water quality due to upstream industrial development are significant issues. All these are combined to cause a series of cumulative impacts.

Mechanisms of Control: The Anchorage Bowl Comprehensive Plan, Anchorage Wetlands Management Plan, Anchorage Coastal Management Plan (CMP), Anchorage Capital Improvement Program, and permit reviews, rezonings, variance cases, drainage improvement plans. Control generally focuses on permitting (Section 404 primarily).

Monitoring has been inconsistent and is carried out by the Municipality of Anchorage (MOA) Code Enforcement, MOA Coastal District Coordinator, and by the U.S. Army Engineer District (USAED). Some mitigation has been required as a condition of permit receipt, but there has been no success in addressing cumulative impacts.

2.2 CHUCK DEGNAN, BERING STRAITS CRSA

2.2.1 U.S. Air Force Cleanup of Past Military Sites

The impacts of military activities are just now being recognized. It is difficult to deal with military sites because information is not forthcoming. There are impacts due to the initial operations as well as the cleanup resulting from those activities.

2.2.2 Timber Creek Trapping Cabin

A proposed trapping cabin in an area that is used by several villages raised concerns about the impacts on subsistence resources and conflicts with traditional trapping practices. The initial decision to issue a trapping cabin permit was found to be consistent with the Bering Straits Coastal Management Plan (BSCMP), despite district objections to a permanent structure and their recommendation to allow only a temporary structure. The permit was determined by the

Department of Natural Resources (DNR) to comply with the Northwest Area Plan. Differences over local and state interpretations of the policies in the BSCMP were the basis for the elevation proceedings and petition process that followed. The BSCRSA filed a lawsuit after the Coastal Policy Council concurred with the commissioner's determination. Due deference under the ACMP is a key issue that will be addressed in the Superior Court Decision.

2.3 JAN CAULFIELD, CITY AND BOROUGH OF JUNEAU

Issue: A potential project is in the planning stage to move lower Duck Creek to create uplands development space for expansion of the Juneau Airport. Duck Creek is an anadromous fish stream and an impaired waterbody, and water quality impacts need to be taken into consideration during project development.

Mechanisms of Control: Section 404 Permitting, Local Wetlands Permit, and Title 16. The airport expansion project is a Borough initiated project. Although the Borough has the opportunity to improve the stream, it would be the result of moving forward with the airport project.

Problems with addressing impacts center mainly on the lack of data about past effects on the creek and whether relocating the stream will create further impacts to or benefit the stream. Another major concern is whether the CBJ can afford what should be done to restore the creek.

2.4 KEN HUDSON, MATANUSKA-SUSITNA BOROUGH

Issues: A major issue in the Matanuska-Susitna Borough (MSB) is that of wetlands fill and riverbank erosion resulting in cumulative impacts from development along an active and dynamic river system. CIs in this discussion were those affecting and causing damage to the built environment (homes) rather than the natural environment. Some of the housing development impacts the natural environment, but damage to the human-built environment results when construction occurs in inappropriate locations. The CI of development has a different kind of negative impact and is definitely a coastal impact that needs to be dealt with.

Mechanisms of Control: Flood Damage Prevention Ordinance, planning under the ACMP, land use planning and regulations, subdivision regulations, Federal/State permits, and watershed management.

A watershed study is underway with the Resource Conservation Service to establish a watershed-wide planning program to determine the risks of continued floodplain development and to make recommendations regarding long-term use and management of the entire watershed. Particular attention is being paid to those areas subject to erosion.

All mechanisms used to date have been inadequate in addressing cumulative impacts.

2.5 HARRIET WEGNER, KENAI PENINSULA BOROUGH

2.5.1 Example Project 1

Early planning and pro-active involvement of all interested parties in larger projects have produced positive results with minimal impacts. Section 404 and Title 16 permits were necessary for an after-the-fact dredge and fill project adjacent to the Kenai River (Kenai River 312). In the CIs study on the Kenai River, "Assessment of Cumulative Impacts of Development and Human Uses on Fish Habitat in the Kenai River" (Alaska Department of Fish and Game (DFG) Technical Report 94-6), the DFG assigned a value for habitat, so data existed for each property involved, and impacts related to habitat value could be assessed. The following is a listing of significant impacts, specific causes of those impacts, and the review process used to permit the project.

Significant impacts:

- loss of shoreline habitat important for salmon, especially rearing juvenile chinook;
- loss of wetlands;
- increase in the amount of waterborne sediment; and
- changes to circulation and drainage patterns.

Specific causes:

- dredging of nearshore area to create two boat basins;
- fill placement in high value wetlands;
- removal of nearshore vegetation; and
- shoreline development on numerous lots within the subdivision.

Existing Process (current project, at proposed finding stage):

- Section 404/10 violation, after-the-fact permit and an ACMP review;
- Project also requires an Alaska Department of Environmental Conservation (ADEC) 401, DFG Title 16, Alaska Department of Natural Resources (DNR) Park Use permit and a Kenai Peninsula Borough (KPB) Floodplain permit.

The DFG Technical Report 94-6 was used to establish habitat units for project area and to classify waterfront habitat. The proposed ACMP consistency determination found the project inconsistent based on 6 AAC 80.130 and KPB Coastal Management Plan (KPBCMP) 2.4 Dredging and Filling, 2.6 Mitigation, 2.7 Cumulative Impacts and 12.1 Priority Use. Habitat and soils data provided sound resource information for the basis of the finding.

Good resource data and an incentive grant for potential restoration and reclamation activities produced above average success in attaining consensus in the ACMP review. An applicant willing to work with the agencies also helped produce positive results.

2.5.2 Example Project 2

In the case of Kachemak Bay 114, resource data was available but the decision upon which it was based was overruled by the Commissioner upon elevation. Homer has a wetlands General Permit (GP) and resource data was available, but the final decision was based on political considerations.

Kachemak Bay 114 entailed a modification to an expired 404 permit for placement of additional wetlands fill on private property to provide a staging area and maintenance yard for heavy equipment during the construction season, instead of a boat storage pad as originally proposed. Much of the property consists of wetlands, although roughly two-thirds of the lot has now been filled, and is part of a large contiguous tract of land that was later identified as high-value wetlands for a major tern colony in the Homer Wetlands Plan. The tern colony is a major tourist attraction but has been impacted by the Exxon Valdez oil spill and the Homer airport expansion project. Although the applicant's property borders the tern colony and is within an area identified as high-value wetlands, it is one of several private but undeveloped lots that have been zoned for commercial use by the City of Homer.

The project was initially found inconsistent with the ACMP because of concerns about further impacting the declining tern population and their habitat requirements. Detailed resource data in Homer's Wetlands Plan was available to help support this decision. The finding was elevated and eventually overturned by the Commissioners of the resource agencies. The final Commissioner's determination required a reduction in the area of allowable fill, fencing and revegetation, and a buffer zone between the lot lines and the tern colony. These mitigation measures were fashioned after the conditions stipulated for the airport expansion project. Although Homer's Wetlands Plan contained detailed resource data and identified the project site as high-value wetlands, a wetlands permit was eventually issued to the applicant because the original project was approved prior to the wetlands study and because of the city's zoning ordinance.

Issue: Politics versus use of good resource data.

Mechanisms of Control: There is no land use plan for the KPB, only two small zoning areas. Title 29 and ACMP interface is problematic. The Title 29 floodplain program is used quite a bit and the floodplain ordinance required analysis of cumulative impacts of development to the 100-year flood event prior to approval of a floodplain permit.

2.6 BETH McKIBBEN, CITY AND BOROUGH OF YAKUTAT

Issue: Situk-Lost River user group conflicts and the potential for overuse of the resource, due to an increase in use of the river system. Conflicts are highest between commercial setnetters and sport fishermen, but also occur to a lesser extent between guided and unguided sport fishermen and with subsistence users. The Situk is accessible by road and usage has increased significantly in the last several years.

Mechanisms of Control: U.S. Forest Service (USFS) Situk River Management Plan. This plan was originally not completed but in an effort to restart the management planning process a carrying capacity study was completed by USFS one and one-half years ago, but the study methods have been questioned. Various user groups differ in how they want the area managed; the Native groups want a lower threshold that continues past patterns of use, the guides want higher use levels to accommodate the growing sportfishery. A new ranger was hired and the planning process was restarted.

3.0 MORE DETAILS ON A FEW PROJECTS

The group decided to focus on one urban site and one project in the planning stage for a detailed discussion of CIs, where they occur, the causes, and possible solutions.

3.1 KLATT BOG

The main issue in the Klatt Bog example is that the Municipality identified the area for expansion of residential development without knowing the values of the bog. Early identification of environmental impacts is essential for preventing the accumulation of impacts. These include flood prevention, water quality issues related to industrial fringe development and loss of habitat. There are only approximately 400 acres left from an area that was originally over 1500 acres. All of the fringe has been developed with residential and related infrastructure. Future actions necessary are to: 1) stop adverse impacts, and 2) reintroduce groundwater to protect habitat. The following is a summary of impacts, causes, procedures, and control mechanisms.

Significant Impacts of the Site: Loss of critical wildlife habitat, alteration of local and bogwide hydrology, habitat fragmentation, local water quality, and storm water runoff issues.

Specific Causes of Cumulative Impacts: Direct wetland fills related to residential development, local road and utility infrastructure, changes in up-gradient runoff and drainage patterns, industrial runoff, and noise and human disturbances.

Existing Procedures, Etc.: Klatt Bog was identified as a Coastal Habitat Preservation Area in Anchorage's CZM Plan and as critical wildlife habitat by the USFWS. Since the late 1970's the Municipality has identified the Klatt area as one of the key undeveloped sections of the Anchorage Bowl available for residential expansion. Since that time the Comprehensive Plan and the Municipality's CIP programs have identified and encouraged utility, roads, and school infrastructures for the Klatt area in anticipation of this expansion and infilling. The permit process has permitted many large 404 actions for subdivisions and roads and the core of Klatt Bog and the critical wildlife areas have been severely impacted.

Mechanisms: Anchorage Bowl Comprehensive Plan, Anchorage Wetlands Management Plan, Anchorage Coastal Management Plan (CMP), Anchorage Capital Improvement Program, etc. and permit reviews, rezonings, variance cases, drainage improvement plans, etc. Monitoring has been inconsistent and is carried out by the Municipal Code Enforcement, the MOA Coastal District Coordinator, and by the USAED.

These mechanisms have been partly successful, however they are often in conflict with each other, and therefore work against protecting the bog and wetland resources. Many of these plans are not used consistently and even the permit review process does not adhere consistently to the policies set forth in the Anchorage CMP. The Anchorage Bowl Comprehensive Plan has a strong environmental component that includes reference to both the Wetlands and CMP but neither developers, the Municipality itself or the permit agencies consistently adhere to the polices and regulations. The bottom line is that Klatt Bog has less than half of the original wetland acreage left as a result of cumulative wetland fills. The Corps process has limited the extent of wetland acres filled but permits continue to be issued and mitigation and avoidance have only been partially successful in offsetting lost resources.

Privately owned land inhibits the ability to control development, for which there continues to be a push. The currently available mechanisms are ineffective. The Anchorage CMP's enforceable policies are inadequate and the 404 process isn't designed to stop development, the USAED continues to issue permits in the area. The MOA has not been interested in applying eminent domain to protect remaining habitat. Conservation in Anchorage, like most local entities, is influenced by politics.

3.2 DUCK CREEK RESTORATION

Duck Creek, in the Mendenhall Valley in Juneau is a "classic urban stream" that has been reshaped, moved, and generally impacted over the last 30 years. The creek is the mouth of a larger system that has been impacted by long-term development. The entire riparian area in this system is identified as wetlands in the CBJ Wetlands Plan. Further development in the area is anticipated in the plan. The project would relocate what is presently the most natural portion of the stream, which runs through airport property, to allow for more wetlands fill to expand the airport. The City and Borough of Juneau (CBJ) wants to look at the larger context of the watershed for issues such as water balance and flooding, not just the portion of the stream to be directly impacted.

The mechanisms are available for correcting 30 years' worth of cumulative impacts, and the CBJ has the opportunity to remedy past, and prevent future, impacts. These mechanisms include the Interagency Relocation Group, the City Wetlands Review Board (with local wetlands permitting authority), the CBJ Planning Commission, and the Duck Creek Restoration Committee. They can all work toward positive watershed planning and restoration. There exist opportunities for improving a heavily impacted stream. Ultimately, the cost of restoration will have to be balanced with how much development space the CBJ gains. This decision will be influenced by

the amount of public awareness and support for using public monies to fund the project. So far there is no community agreement that there is a problem, although the CBJ is working on developing measures to help gain public support for the project. The Interagency Relocation Group has not reached agreement on the basic hydrology and objectives of the project, or the final project design.

3.2 TIMBER CREEK TRAPPING CABIN

The Northwest Area Plan (NAP) produced by the DNR discourages permanent trapping cabins to avoid conflicts with subsistence patterns and traditional trapping practices, but does not explicitly prohibit permits for permanent structures within the boundaries of the Bering Straits CMP (BSCMP). A hunting guide from outside the region applied for a trapping cabin in the Koyuk River drainage, which is in a permit notification zone in the BSCMP due to the importance of this area for subsistence and traditional uses. The Bering Straits Coastal District recommended that a permanent cabin be found inconsistent with the BSCMP because of competition for subsistence resources and the potential for a permanent structure to draw additional users into the area, creating further competition for resources. The district recommended the permit be conditioned to allow a temporary tent structure based on subsistence policies in their plan, which are also recognized in the NAP. The NAP also recommends that trapping cabin construction permits not be issued if conflicts with existing trapping and subsistence activities can not be avoided or minimized. The DNR felt that the district's concerns could be mitigated through permit stipulations, such as prohibiting use of the cabin for hunting purposes and issued a permit for a permanent structure. The District elevated the Regional level decision. The Director level finding, which stipulated a temporary structure, was elevated by the applicant and overturned in the Commissioner's determination. The District filed a petition with the Coastal Policy Council (CPC), where the District's petition was dismissed on the basis that the permit was properly issued. The District exhausted all administrative remedies, and has filed in Superior Court.

Locally, there is consensus about potential impacts from permanent cabins, and about competition for subsistence resources. Differences in interpretation of and due deference on the policies of the BSCMP and the actual intent of the NAP guidelines were evident during the appeals process. These differences are mainly due to a lack of understanding of rural/native values by adjudicators that live in urban areas.

Mechanisms for control of CIs include the DNR NAP and the BSCMP. The primary control mechanism here is the regulatory review via the ACMP/BSCMP and the legal review via the

court system. Success, in the district's perspective, will not be determined by the outcome of the court case. The process here was successful because the overall goal was to educate people about the local view of resource use, and to show that they can advocate for themselves. The court's ruling will likely have major implications on how "due deference" is applied under the ACMP.

4.0 SOLUTIONS

The suggestions below reflect a common-sense approach to addressing some of the problems identified by group participants.

- Be specific about problems, about who is affected, and how. Specific resource information needs to be used. Also local consensus and locally established goals are necessary.

It is difficult to gain support for addressing a problem when generalities are used to describe the situation. The specific problem and impacts of concern must be clearly defined and described in "real" terms that can be understood. The consequences of not taking action to address the problem also must be explained. It is important to identify who is directly and potentially affected by the problem and proposed solution, and to deal upfront with those opposed. Baseline data on existing resources and information on impacts is necessary to demonstrate the extent of proposed actions (including a possible no-action alternative) and must be clearly stated and understood, especially by decision-makers. Public awareness and support are especially important when local funding is involved. Management goals and objectives must have local acceptance and provide clear direction to those responsible for implementing them. The tools to implement this management direction must also be available and effective.

The Kachemak Bay 114 project (expanded wetlands fill on private property for a heavy equipment staging area) in Homer illustrates the importance of having clear management goals and objectives and policies that are consistent with other management schemes. The project was initially determined inconsistent with the ACMP based on KPBCMP enforceable policies and available resource information, including Homer's Wetlands Plan which identified the project site as within a high-value wetlands area. This designation was construed at the local level to indirectly mean a "no development zone." The city's zoning ordinance however, which was enacted prior to the wetlands plan, identified the project area as part of a commercial use zone and was never amended to reflect the management intent for high value wetlands. The

Commissioner level determination under the ACMP also found that the project could be made consistent by requiring on-site mitigation measures based on KPBCMP enforceable policies.

- Cumulative impacts must be addressed on a sub-area basis, not a district-wide approach.

District coastal management plans typically cover large areas and include general resource information and broad performance standards that apply to the entire area. This approach does not work well to address specific areas or sites of concern. Cumulative impacts are more effectively addressed on a sub-area basis where there are specific impacts that require more specific management direction.

The Klatt Bog site in Anchorage is an example of where a sub-area approach would be more effective in determining acceptable and unacceptable impacts. Conflicting management direction in the municipality's coastal management plan, comprehensive plan, and CIP programs over the years has contributed to the piece-meal development scenario at Klatt Bog. A more focused approach would involve identifying the remaining values of the bog, pinning down the municipality's development and protection goals for the area, and determining the mechanisms necessary to successfully implement these goals.

- Deal with politics and be ready to compromise.

Planning processes, permit reviews and other implementation actions will always be influenced to some extent by politics. Posturing rarely works; it is important to be reasonable and reach a negotiated settlement whenever possible and to have other alternatives that achieve the same objectives.

- Periodically review and update plans as necessary.

Local plans should be periodically evaluated and updated to reaffirm or modify goals and objectives and policies to reflect environmental and socio-economic changes.

- Provide a regulatory definition of cumulative impacts.

There was general agreement that a definition of cumulative impacts would mean something different to each area. A general definition of CIs is probably necessary to define what is meant by the concept since the ACMP and some district plans reference cumulative impacts. If a

definition is incorporated into the ACMP planning regulations, it should allow districts to further define and develop a framework at the local level to reflect the local perspective and value system. A definition was considered by some to be a defense mechanism to deal with developers who question local decisions that may be based on cumulative impacts. The need to strike a balance between environmental values and socio-economic values was also stressed.

5.0 GENERAL COMMENTS

- All the planning/permitting mechanisms are worth little when the review process becomes political.

- Issues related to bigger projects tend to get attention and are addressed due to public interest. Smaller projects tend to get passed over, but many small projects can add up to substantial CIs.

- There is a missing link between Title 29/local planning and the ACMP, Section 404, and Title 16. It is procedural in terms of regulatory authority, and in perception.

- Solutions need to be very specific, not generic.

- CIs occur across the state, and in every region. Some types of CIs are common across regions regardless of how they are measured.

- Cumulative impacts are better addressed through the planning process, not case-by-case permit reviews. It is difficult to "shoe-horn" cumulative impacts in during the permit review process as a way to address areas that already have problems.

- Local plans need to reflect both area-wide values (for example, specific watershed and biophysical boundaries) and future potential impacts in order to evaluate and plan for cumulative impacts. Long term management goals need to be part of that process.

- Many of the problems identified, such as ineffective policies and the whole issue of "due deference," are programmatic in nature and not necessarily specific to cumulative impacts.

- It appears that cumulative impacts are addressed to some extent through existing mechanisms, even though the term "cumulative impacts" is not used.

6.0 METHODOLOGY CRITIQUE

Generally the face-to-face meeting was quite valuable. Attendees discovered they were not alone in dealing with CIs, learned about some issues, and considered this a positive learning experience.

Meetings involving audio conferencing leave a lot to be desired, it is difficult for teleconference attendees to participate in the discussions. Prior to the end of the meeting, all of the audio representatives had left. Face-to-face meetings are preferable.

DEPARTMENT OF NATURAL RESOURCES

MEETING SUMMARY

August 9, 1995

LOCATION: Frontier Building, Suite 1080

ATTENDEES:

Rob Walkinshaw
Rick Thompson
Mitch Henning
Dave Wallingford
Kim Kruse
Dick LeFebvre
Al Samet
Kerwin Krause

TELECONFERENCE ATTENDEE:

Janet Burleson

CONSULTANTS:

Alison Smith, Dames & Moore
Gwendo-Lyn Turner, Dames & Moore

1.0 INTRODUCTION

Rob Walkinshaw of the Department of Natural Resources (DNR) started the meeting with introductions and gave a description of the 309 Program and related monies and reports which need not be summarized here. He then explained that the purpose of the meeting was to provide a followup to the HDR report and to answer some questions remaining unanswered after completion of the HDR report.

2.0 DISCUSSION

There are several avenues for addressing cumulative and secondary impacts other than the Alaska Coastal Management Program (ACMP). Participants believe that under existing statutes regulations, and procedures, cumulative impacts (CIs) are being addressed. In addition, two recent pieces of State of Alaska legislation, House Bill 169 (1995) and Senate Bill 308 (1994), address cumulative impacts (CI). A DNR Task Force (established as a result of SB 308) is also is currently studying the issue. These activities have come about as a result of judicial decisions. Any effort to address CIs must incorporate existing processes, or be able to be meshed with what currently exists. Those involved in implementation of the ACMP, including the Division of Governmental Coordination (DGC), were perceived as not understanding that other processes are ongoing related to defining CIs.

DNR is of the opinion that the ACMP is not where the issue of CIs should be defined and managed. The DNR project review process is broader than the ACMP process. More area is covered than that within the coastal zone, and agency authorities go beyond the topics covered by the ACMP. The agency with authority to implement change is where management of CIs should rest.

Addressing CIs requires clearly defined parameters, and definition of the boundaries within which the parameters are addressed. These parameters are best determined specifically for each project. Parameters should describe where CIs apply, and be tailored to the authorities of the permitting agency. Parameters of CIs include, at a minimum, timeframe, project boundaries, and the required level of detail. If parameters are not defined or are too open ended (or unrealistic), then the agency is vulnerable to litigation. Specific definition of these parameters in legislation or regulation however, would take away flexibility the agency thinks is necessary to be effective.

Participants at the meeting agreed that a definition should not be included in the ACMP. The divisions within DNR don't agree whether a statutory or regulatory definition is necessary within each agency's authorities. Some believe that without a specific definition and guidelines, the agency is open to litigation, with the courts to defining the parameters. Others believe that divisions already address CIs under existing statutes, and nothing more is needed at the statutory or regulatory level. Regardless of what the position on statutory and regulatory definition, it was agreed that a generic solution would pose real problems. What may work for the Division of Lands (flexibility) may not work for Division of Oil and Gas and Mining (a specific listing of impacts to be considered and their related parameters).

It was agreed that the parameters for defining how CIs are addressed and considered should be agency driven. In a current case-by-case determination of parameters, as part of a project review, one must outline the issues, then determine any changes that are necessary in the project. A list of parameters is already delineated in Federal statute via the National Environmental Policy Act (NEPA).

Currently, DNR has the following processes and tools for assessment of project impacts:

- "035" Decision Process
- Major Project Scoping
- Legislation
- Public Notice Process
- Division of Oil and Gas "G List"
- Shellfish Farm Program
- Forest Practices Act
- Professional Judgement

DNR personnel feel that CIs are addressed via the DNR permit review and approval process. Identified impacts can be mitigated for by these processes. DNR does not want to see development of another system to deal with CIs, adding another layer to the already unwieldy permitting process. The current framework should be sufficient to work within.

Cumulative versus secondary impacts are not always clearly conceptualized. Measurable impacts (air pollution, water pollution, etc.) to natural resources can be and are mitigated for under current federal and state regulations through DNR permitting processes. Most of the problems in development of resources deal with qualitative impacts (visual, wildlife, recreational use,

etc.), which are difficult to quantify. What may be a positive impact to one person may be a negative impact to someone else.

DNR looks at impacts, in the context of a project, whether these are cumulative impacts is a matter of definition. For instance, it would be allowable for a dozen mines to operate on a watershed, as long as each mine was meeting water quality discharge criteria, and cumulative impacts would not develop as long as each mine is meeting these criteria. The visual and wildlife impacts from each mine would be looked at and mitigated for, but not necessarily the impact of each additional mine.

Adding to the problem of addressing CIs are the different functions of the various agencies. DNR's mission is to provide for the controlled use of the state's resources with consideration of the environment. There was consensus among DNR personnel that development of resources does result in unavoidable impacts to qualitative values, and that anytime something is done in the natural environment, the environment is affected, i.e., individual natural resources cannot be developed without impacting other resources. In contrast to DNR, the Alaska Department of Fish and Game's (DFG) function is to manage wildlife to optimize the wildlife resource, which a mining or logging operation would impact. There can be agreement, acknowledgement, and identification of CIs. The problem comes when a decision is required to be made regarding an action. General impacts are mitigated as a matter of course. This, however, often does not go far enough for agencies or districts with a different mission than DNR.

3.0 SPECIFIC EXAMPLES

3.1 FORESTRY

Dave Wallingford introduced the topic of cumulative effects in forestry. He provided a written summary which is attached (Attachment 1).

3.1.1 Specific Issues or Problems

- Soil alteration from road construction and use, and timber harvest, all cause some erosion, water quality degradation, debris avalanches, and changes in aquatic habitat. These are the primary impacts from timber harvest.

- Removal of excess quantities of biomass, i.e., high utilization combined with short rotations, results in accelerated leaching and reductions in down and dead wood. Cumulative and secondary impacts would result from numerous timber sales in one area, or from use of roads for access to fishing areas, and resultant overfishing, trampling of vegetation, and associated water quality degradation.

- Changes in the composition and structure of vegetation results in loss of habitat.

3.1.2 Causes of the Problems

Physical disturbance of soil causes erosion and resultant water quality degradation.

3.1.3 What procedures, policies, planning processes, and monitoring and compliance programs are used to prevent or mitigate?

The basic planning process comes from the Forest Practices Act which also specifies monitoring and compliance. The timing of harvests is an important tool for minimizing soil disturbance. Baseline information needs to be identified for each issue, with the followup of research. Improvements in administration of agency programs and interagency cooperation are needed.

3.2 JACKALOF BAY QUARRY AND DOCK

This was a high profile project proposed for the Kachemak Bay State Park and Critical Habitat Area.

3.2.1 Specific Issues or Problems

The specific problems are related to loss of wilderness and potential degradation of water quality in the project vicinity.

3.2.2 Causes of the Problems

The proposed project created a conflict with other users of the area, i.e., boaters, commercial and sport fishers, and adjacent landowners.

3.2.3 What procedures, policies, planning processes, and monitoring and compliance programs are used to prevent or mitigate?

Existing procedures, policies, and planning processes for dealing with the conflicts were hearings, the planning process, and public involvement in the review process.

3.3 FORT KNOX MINE

A proposed mine in the Fairbanks area.

3.3.1 Specific Issues or Problems

The specific problems are typical of large mine developments. These include possible degradation of air quality and fish habitat.

3.3.2 Causes of Problems

The causes of problems would be related to development of and production from the mine.

3.3.3 What procedures, policies, planning processes, and monitoring and compliance programs are used to prevent or mitigate?

Existing procedures, policies, etc. include pre-project planning and involvement of the public in the decision-making process. Pre-project planning included defining parameters and identifying the scope of impacts to address, including some that could be defined as cumulative or secondary. A reclamation plan was required and approved. Section 404, State Air Quality, Solid Waste and Fish Habitat permits were also required. Typical stipulations related to monitoring were placed on permits.

3.4 GENERIC MINING

Mining came up as a generic issue.

3.4.1 Specific Issues or Problems

The specific issues are related to surface disturbance, visual impacts, and loss of habitat. Often several mines occupy the same watershed and impacts accumulate.

3.4.2 Causes of Problems

Causes of CIs are the mine operations.

3.4.3 What procedures, policies, planning processes, and monitoring and compliance programs are used to prevent or mitigate?

Existing procedures, policies, and planning processes for dealing with impacts include NPDES permits and the related review, the permit review process through DNR, and the requirement that each mine meet specific numerical standards.

Other control mechanisms include closure of mines for non-compliance.

3.5 BELUGA COAL MINE

DNR attempted to permit the mine in phases, leaving out the road, port, camps, etc. for later review. DNR was sued and had to look at the project as a whole.

3.5.1 Specific Issues or Problems

Phasing of a project does not allow for analysis of CIs on the whole project.

3.5.2 Causes of Problems

The cause of the administrative problem was that review of the mine was separated from review of the rest of the project.

3.5.3 What procedures, policies, planning processes, and monitoring and compliance programs are used to prevent or mitigate?

Existing procedures come from Federal and State regulations, and required analysis of the entire project. The primary issue revolved around the procedural question of phasing a project.

3.6 ISSUE SUMMARY

The examples presented above illustrate several problems in addressing CIs (and impacts generally). Erosion, water quality degradation, habitat changes, loss of wilderness, and visual

impacts can all result from the types of projects discussed. Impacts are addressed, and a variety of tools are used to address them. The tools are tailored to the situation and specific statutes and authorities under which each activity must be managed. Identification of impacts is not as difficult as dealing with implementation issues such as non-compliance, user conflicts, and the lack of funding and staff time for inspections.

4.0 SOLUTIONS

Several suggestions were offered as solutions to the problems of implementation. These deal largely with practical aspects of addressing CIs, and do not focus on statutes or regulatory changes.

1. Use of forest roads can be controlled. This manages the situation and produces a positive impact. If there is no site management, negative impacts result. Authorities for control are primarily the Forest Practices Act.

2. Solutions in the case of the Fort Knox Mine include:

    - Good pre-planning of project review;
    - Involve the public early on with pre-project planning;
    - Look at the project as a whole;
    - Coordinate the permitting process; and
    - Allow for a discussion of impacts from the whole project.

3. The mitigation process can also address problems, and provide a useful tool, if enforcement follows. Enforcement is a function of funding, which must depend on the public being willing to pay for environmental quality.

4. A holistic view of project impacts is difficult to develop, but this view can be developed from early identification of issues, and public involvement and comment (bringing new information to the process). This can be done within the existing process.

5.0 GENERAL COMMENTS

Political decision-making and motivation is a very important factor in the process of land management.

6.0 METHODOLOGY CRITIQUE

The process of face-to-face meetings is more direct, closer to reality, and brings out more details than a telephone survey. This is definitely a better method than telephone interviews, where participants could only respond to the set questions. Also, there was no control of how the information was used in the telephone interviews.

The participants thought that it was useful for them to hear each other's opinion of the topic in person. It was a positive experience for the agency personnel.

"Whether the process is useful in the long run, only time will tell. If it is just another discussion, we've wasted everyone's time. If there is meaningful change and an increased understanding of the issue, and DNR's perspective, it is helpful."

Attachment 1

Cumulative effects in forestry

defined as:

Changes to the environment caused by the interaction of natural ecosystem processes with the effects of two or more forest activities. Interaction between the effects of the multiple activities have to take place for cumulative effects to occur.

All environmental changes caused by man are either individual or cumulative effects. Individual effects may never be cumulative if they don't interact with another forest activity.

Cumulative effects are either temporary or persistent. Most forest activities are temporary - they're back to natural baseline within the rotation. Persistent go on until the forest activity is changed or stopped.

There are three groups of forest activities that have potential for causing cumulative effects;

— Activities that physically disturb or alter the soil, principally roads and harvest,
example: soil disturbance leads to erosion, increased frequency of debris avalanches, water quality degradation and change in aquatic habitat.

— Activities that remove excessive quantities of biomass, principally high utilization combined with short rotations and site prep,
example: whole tree harvest, prescribed fire, short rotations removing nutrients, accelerate leaching, and reduce amount of down and dead wood material.

— Activities that change the composition and structure of vegetation principally harvest and short rotations.
example: converting unmanaged to managed forest, type conversion, even-aged management, artificial regeneration, selective harvest(high grading).

Ninety percent of the cumulative effects problem will be associated with forest road construction, maintenance and use. Erosion, waste water run-off, soil loss through mass wasting, drainage blockage, water quality degradation, habitat loss upland and aquatic. These are persistent activities whose effects can be mitigated.

Most other forest activities are temporary and can be prevented and mitigated to be non-issues especially in Alaska at this point in time.

What about timing and duration of the activities as to their impact on cumulative effects? Are the cumulative effects positive, negative or neutral does it make a difference?

What are the significant cumulative effects issues? Presently I

don't believe there exist any in forest activities particularly under ACMP.

DNR might list significant cumulative issues in order of priority, decide the magnitude and extent of the problem, will this problem continue into the future, what's the cause and effect of the problem. I.D. baseline for each issue. Determine the research needs. Make the best use of existing and new data. Improve administration of agency programs and interagency cooperation which address the issues.

Controls can be described as "preventive" or "mitigative" according to the mode of application. Preventive controls apply to the pre-implementation phase of an operation. These controls involve stopping or changing the activity before the soil-disturbing activity has a chance to occur. Mitigative controls include vegetative or chemical measures or physical structures which alter the response of the soil disturbing activity after it has occurred. Table 1 illustrates some of the major characteristics of the two types of controls and provides some examples.

TABLE 1. CLASSIFICATION OF CONTROL METHODS WITH EXAMPLES

Mitigative	Preventive
A. Surface protection: 1. Access: Seeding, mulching, riprap, or mat on cut-and-fill slopes 2. Timber harvest: Maintenance of vegetative cover; distribution of slash 3. Cultural treatments: Seeding; planting; fertilization B. Flow diversion and energy: 1. Access: Berms above cut slopes; benches on cut slopes; checkdams in ditches; drop structure at culvert ends; water bars on road surface; flow diversion from potential mass failures or at mid-slope 2. Timber harvest: Buffer strips; water bars on skid trails 3. Cultural practices: Plowing, furrowing, bedding C. Access design modification	A. System design and maintenance 1. Access: Minimize cuts and fills, roadway widths and slopes; control road density 2. Timber harvest: Minimize soil compaction from equipment operation; use site-compatible log removal system; control harvested volume within a watershed; limit harvest on unstable slopes 3. Cultural treatments: Minimize re-entry disturbances; fire control B. Timing: 1. Access: Closure of temporary roads; limited access; closure during adverse conditions 2. Timber harvest: Limit operation during adverse climatic conditions; site preparations during favorable conditions 3. Cultural treatments: Intensive and number of thinnings

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MEETING SUMMARY

August 16, 1995

LOCATION: 410 Willoughby, Juneau, Alaska

ATTENDEES:

Fran Roche
Joyce Beelman
Kevin Hanley
Doug Redburn
Jim Baumgartner
Keven Kleweno
Steve Wright
Amy Crook

CONSULTANTS:

Alison Smith, Dames & Moore
Gwendo-Lyn Turner, Dames & Moore

1.0 INTRODUCTION

Fran Roche of the Department of Environmental Conservation (DEC) started the meeting with introductions and gave an overview of the Cumulative Impacts (CI) project. Alison Smith discussed the role of Dames & Moore and what the rest of the project entails.

2.0 EXAMPLES OF PROJECTS WITH CIs

2.1 REOPENING OF A.J. MINE

The reopening of the A.J. Mine in Juneau touches on numerous issues.

2.1.1 Specific Issues

- Loss of productivity in Gastineau Channel
- Loss of other uses

2.1.2 Causes

Reopening the mine would require discharge in Gastineau Channel on top of tailings left over from gold mining 50 years ago. Possible impacts include:

- Conflicts with recreational users of the channel;
- Conflicts with commercial and subsistence fisheries;
- Possible interaction with discharge from municipal sewage treatment plants;
- Impacts to quality of water used in hatcheries;
- Boat traffic/equipment interaction; and
- Potential CIs from five proposed hard rock mines up the Taku River in Canada. These mines would all need to dispose of tailings, potentially causing CIs.

2.1.3 Procedures, Policies, Planning Processes, Monitoring, and Compliance

The National Environmental Policy Act (NEPA) dictated an Environmental Impact Statement (EIS) to be written. CIs were addressed in the document and existing impacts were discussed as well. DEC addressed CIs via the NEPA process which was the only vehicle available to

address CIs. CIs were not to be addressed as part of the Alaska Coastal Management Program (ACMP) review. The CI review in the NEPA document was just a cursory review.

The Division of Governmental Coordination (DGC) reviews have historically not allowed limits on fills or discharge with a CI ACMP rationale.

2.2 SHIP CREEK (ANCHORAGE)

2.2.1 Specific Issues

- Terrestrial and groundwater contamination of Ship Creek Watershed from nitrites, hydrocarbons, and landfill leachate;
- Surface runoff from Standard Steel, a superfund site (polychlorinated biphenols (PCB) and lead);
- Thermal degradation from the power plant;
- Fecal coliform from numerous waterfowl; and
- PCBs in sediments.

2.2.2 Causes

- Deicing runways
- Fuel spills (recent and historic)
- Surface runoff
- Intense industrial/commercial development

2.2.3 Procedures, Policies, Planning Processes, Monitoring, and Compliance

- Plan review.
- Permit review.
- Sampling programs.
- Interagency group to address Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) issues and related to 303(d) list for Total Maximum Daily Load (TMDL) process.

2.3 ANCHORAGE LAKES

2.3.1 Specific Issues

- High fecal coliform (water quality violations)
- Closures of recreational swimming lakes

2.3.2 Causes

- Increasing filling of wetlands decreases habitat for waterfowl, resulting in concentration of birds on Anchorage lakes.

2.3.3 Procedures, Policies, Planning Processes, Monitoring, and Compliance

- Lake closures
- Decrease the amount of fill permitted in Section 404 program

2.4 NORTH SLOPE

2.4.1 Specific Issues

- Air Quality

2.4.2 Causes

- Burning hydrocarbons

2.4.3 Procedures, Policies, Planning Processes, Monitoring, and Compliance

- Prevention of Significant Deterioration (PSD) Program
- Title V/Major Source Permitting under Clean Air Act (CAA)
- Monitoring

2.5 DUTCH HARBOR

2.5.1 Specific Issues

- Air pollution

2.5.2 Causes

- Burning hydrocarbons
- Lack of centralized power facility

2.5.3 Procedures, Policies, Planning Processes, Monitoring, and Compliance

- PSD Program
- Title V/Major Source Permitting under CAA
- Monitoring

2.6 JUNEAU/MENDENHALL VALLEY

2.6.1 Specific Issues

- Exceedences of air quality standards

2.6.2 Causes

- Use of wood stoves during inversion periods

2.6.3 Procedures, Policies, Planning Processes, Monitoring, and Compliance

- CAA standards
- Air quality monitoring illustrating timing and duration of exceedences
- Local program was established to curtail woodstove use at 50% of the standard. Was very successful with local Juneau community commitment.

2.7 TONGASS NARROWS

2.7.1 Specific Issues

- Documented reduction of herring rearing habitat
- DGC requested threshold levels for fill which Department of Fish and Game (DFG) was unable to provide since biological parameters are difficult to quantify.

2.7.2 Causes

- Numerous fills in the nearshore areas over time
- DGC is not implementing ACMP regulations referring to CIs

2.7.3 Procedures, Policies, Planning Processes, Monitoring, and Compliance

- ACMP review

2.8 RED DOG

2.8.1 Specific Issues

- Overall impacts due to large mine development and long term mining in a frontier area

2.8.2 Causes

- Lack of communication between developer and contractors regarding permit stipulations
- No constant resource agency presence throughout construction due to lack of funding for State agency staff

2.8.3 Procedures, Policies, Planning Processes, Monitoring, and Compliance

- Agencies and developers educate and monitor contractors
- Funding is necessary to properly monitor permit stipulations throughout the life of the project.

2.9 COMMUNITIES THROUGHOUT ALASKA

2.9.1 Specific Issues

- Failed septic systems
- Contaminated surface runoff

2.9.2 Causes

- Lack of permitting

2.9.3 Procedures, Policies, Planning Processes, Monitoring, and Compliance

- Subdivision review
- 404 Permitting
- General Permits are issued specifying Best Management Practices for future development.

3.0 DISCUSSION

A definition of adverse CIs is required in order to provide for consistency in the way CIs are assessed; however, agreement on the definition is difficult among and even within agencies. Emphasis should be placed on specifying what constitutes "adverse" in a CI definition.

The ACMP should be a home for defining CIs for terrestrial, water, air, and socio-environmental CIs (6 AAC 50 and 6 AAC 80). Agencies would adopt the definition if they didn't already define CIs in their regulations. The ACMP would provide a minimum definition of CIs, agencies could further refine if wanted.

The definition needs to be housed in one agency and applied to each agencies' regulatory basis while being consistent with the original definition.

A checklist could be used to address CIs, and a sentence added to permit documents which reference CIs.

The ACMP has broader topic areas than DEC's regulatory authority allows.

The term "associated growth" used in the CAA allows DEC to go beyond just regulating specific emissions, i.e., all the impacts of the project.

Adverse CIs can be defined as those impacts which contribute to exceedances of the state standards or cause the loss of a particular use. Thresholds of adverse CIs, particularly in water, need to be defined, and biological attributes need to be better defined in regulations.

Another issue discussed was that many problems encountered by DEC are a result of poor or no land use planning or would best be addressed via the local planning process.

4.0 SOLUTIONS

- Land management agencies should be the driving force in controlling CIs.
- All agency staff should have some cross-media tasks.
- Put system plan reviews back under the umbrella of the ACMP.
- Develop a batch-processing system for permitting.
- DEC needs to participate in local land use planning, allowing for early issue identification.
- DEC needs to train personnel in the department's overall authorities. This could develop knowledge base in staff.
- Develop interagency working groups which help to develop overview of projects/project areas and expertise on that area within staff.
- Add sentence to permitting checklist and permit document referencing CIs.

5.0 METHODOLOGY CRITIQUE

- Answers and consensus can be developed during face-to-face meetings. Discussions are more direct.

- Interplay was very positive.

DIVISION OF GOVERNMENTAL COORDINATION

MEETING SUMMARY

August 17, 1995

LOCATION: 240 Main Street, Suite 500, Juneau, Alaska

ATTENDEES:

Glenn Gray
Kerry Howard
Lorraine Marshall
Gabrielle LaRoche
Chas Dense
Maureen McCrea

CONSULTANTS:

Alison Smith, Dames & Moore
Gwendo-Lyn Turner, Dames & Moore

1.0 INTRODUCTION

Glenn Gray of the Division of Governmental Coordination (DGC) started the meeting with introductions and gave an overview of the Cumulative Impacts Group Discussion project. Specific examples of cumulative impacts (CIs) were discussed to bring out issues related to the sites and causes of the problems. A discussion of procedures, policies, planning processes, and monitoring and compliance programs currently utilized to deal with CIs followed. Impacts by area and activity or facility type were then discussed with a followup of the generic causes of CIs, and solutions and procedures to address CIs.

2.0 SPECIFIC AREAS WITH QUANTIFIABLE CIs

2.1 ANCHORAGE

2.1.1 Specific Issues

- Wetland losses.
- Flooding.
- Stream rechannelization - There is an attempt to take Chester Creek out of a ditch and reconstruct the habitat.
- Water quality.
- Air quality.

2.1.2 Causes

- Property rights.
- Lack of consensus about what is enough loss.
- Lack of baseline information.
- Sensitivity of each biological system versus degree of impact.
- The fact that by the time an impact to a biological system is visible, the system has already crashed.

2.1.3 Existing Procedures, Policies, Planning Processes, and Monitoring and Compliance Programs

- Alaska Coastal Management Program (ACMP) reviews.

- Anchorage Wetlands Management Program.
- Baseline data helps, but biological systems don't always show impacts until they crash.
- Aerial photo comparison to document historical change.
- Informed consent process through U.S. Army Corps of Engineers (COE).
- Municipality of Anchorage (MOA) application process to fill a wetland.
- Planning and zoning.

2.2 PRINCE OF WALES ISLAND - POLK INLET TIMBER SALE

2.2.1 Specific Issues

- Reuse of old roads with associated maintenance problems
- General watershed problems due to landslides, sedimentation, etc.
- Log Transfer Facilities (LTFs)
- Water quality impacts
- Loss of recreational, subsistence, and commercial fishing use
- Loss of other recreational use

2.2.2 Causes

- Continual harvest.
- Previous logging created problems that will be added to.
- Blowdowns of trees left as buffer zones have resulted in fish kills due to high water temperatures. Lack of shading vegetation causes stream temperatures to increase.

2.2.3 Existing Procedures, Policies, Planning Processes, and Monitoring and Compliance Programs

- U.S. Forest Service (FS) standards, guidelines, and Best Management Practices (BMPs) promulgated under the Forest Practices Act (FPA) are used to control impacts. (FPA standards are used for ACMP forestry reviews on state and federal lands. The Timber and Habitat Standards of the ACMP were preempted by the FPA for state timber sales). If there was a CI Standard under the ACMP or district plan, it might apply to timber sales on state lands.

- Stipulations on federal sales, such as a recent one at Moose Pass where the U.S. Fish and Wildlife Service (FWS) requested that all roads be temporary.
- FS forest plans.
- FS area-wide monitoring which enhances a regional view for looking at CIs.
- Alaska Department of Environmental Conservation (DEC) monitoring for water quality issues.
- Alaska Department of Fish and Game (DFG) interdisciplinary team provides early involvement in the National Environmental Protection Act (NEPA) process on the part of the state. Early involvement in the process results in better projects.

2.3 JUNEAU

2.3.1 Specific Issues

- Air quality impacts.
- Water quality impacts.
- Flooding.
- Habitat Reduction.
- Sensitivity of biological systems; by the time an impact is measurable, it is too late.
- Changes in recreational values.

2.3.2 Causes

- Increasing recreational use of area by tourists.
- Wetlands fill for subdivision development.
- Lack of information on limits to development.
- Wood stove burning during inversions.
- Cruise ship exhaust.
- River stabilization impacts from use of riprap. Vegetative stabilization is encouraged over riprap alone for new construction as well as modifications.
- On-site sewer system impacts on groundwater and surface water. Understanding of the problem is hindered by a lack of documentation about the systems.

2.3.3 Existing Procedures, Policies, Planning Processes, and Monitoring and Compliance Programs

- Section 404 permitting process.
- Consistency review under the ACMP.
- Subdivision review/platting.

2.4 TONGASS NARROWS (KETCHIKAN)

2.4.1 Specific Issues

- Loss of nearshore habitat

2.4.2 Causes

- Community growth and need for expansion of land base.
- Lack of baseline information and impacts are difficult to quantify.
- Many small fills resulting in major loss of nearshore habitat.
- Inability of agencies to deny fills in many small nearshore areas, no way to deal with individual impacts without a review standard.

2.4.3 Existing Procedures, Policies, Planning Processes, and Monitoring and Compliance Programs

- Best professional judgement
- ACMP reviews can identify potential effects of projects
- Section 404 permitting process

2.5 UNALASKA REGION- SEAFOOD PROCESSING

2.5.1 Specific Issues

- Air quality degradation.
- Marine water quality degradation.
- Economic impacts of too much regulation.

2.5.2 Causes

- Burning hydrocarbon fuels for electrical generation.
- Seafood processing discharges.

2.5.3 Existing Procedures, Policies, Planning Processes, and Monitoring and Compliance Programs

- National Pollutant Discharge Elimination System (NPDES) permitting: U.S. Environmental Protection Agency (EPA) decided nearshore operators should have to get individual permits instead of a general permit. This decision was elevated and now more studies on impacts are required. EPA will determine if individual permitting is necessary.
- Consistency review under ACMP.
- Area Meriting Special Attention plan for Unalaska area can control location of new projects, set standards for new projects to meet.
- Harbor Management Plan.
- DEC sets total maximum daily load (TMDL) for impaired waterbodies.

3.0 SPECIFIC AREAS WITH CIs AND TYPES OF ACTIVITIES CAUSING CIs

3.1 IMPACTS BY AREA

3.1.1 Matanuska River

- Eroding river banks are destroying homes which were permitted in inappropriate locations.
- Dikes control flooding which could create legal problems if they ever fail. Matanuska Borough is unwilling to guarantee protection from erosion.

3.3.2 Prudhoe Bay

- Calving in the Central Caribou Herd may be impacted by development. Impacts decrease at distance from the oil fields.
- Air quality impacts from facility operations.
- Wetlands reduction due to gravel fill for roads, causeways, gravel pads.

- Contamination from reserve pits.
- Historical thermal erosion from road dust.
- Impacts from oil spills (statewide, too).
- Causeways - potential negative impacts on nearshore water quality and currents; potential positive impact on Spectacled Eider nesting habitat.

3.3.3 Kenai River

- Site visits are important to determine CIs to the habitat, water quality, wetlands, and recreational use of the river.

3.2 IMPACTS BY ACTIVITY/FACILITY

3.2.1 Sewer Outfalls

- Water quality impacts from homes where systems are improperly hooked up to stormwater drains instead of sewers and from boats flushing wastes.
- Lack of documentation creates an impact; many outfalls are not listed.
- Definite impact can occur on mariculture from above.

3.2.2 Parking Lots/Stormwater

- Many communities stipulate that oil/water separators be installed but do not stipulate a maintenance program, which negates the original intent to protect the environment.

3.2.3 Mariculture

- The presence of a mariculture facility precludes other uses of an area due to the need for good water quality. Affects even low impact recreational use (i.e., kayaking) due to preemption of use of location and loss of wilderness values.

3.2.4 Potential Salmon Ranching/Finfish Farming

- Potential exists for farming/ranching on native lands.
- Genetic impact of ranched versus wild populations mixing and effecting wild population survival in natural streams.

- Impact of competition for ocean resources.
- Introduction of exotic species (Atlantic Salmon) which may effect native species survival.

3.2.5 Fishing

- Pollution from commercial fishing boats.
- Overfishing - Alaska has a good record to date.
- Conflicts over use - cruise ships fowling fishing nets.
- Impact on recreational and subsistence fishing due to guided fishing tours. Increased noise, loss of wilderness values, potential decrease in fish.
- Bank erosion and loss of habitat due to increased use of riverine systems.

4.0 GENERIC CAUSES OF CIs

There is a general lack of direction on how to handle CIs and a lack of clarity in statute and regulations. This is a multi-disciplinary problem and creates obstacles to implementation. There is also a lack of knowledge about methods to use to address CIs. Not all activities go through a review process or need permits, so there aren't the necessary controls to prevent CIs. For large projects, many modifications are reviewed individually, not as a whole. Lack of regulations or controls (even some sort of review process) on some activities contribute to the accumulation of impacts over time.

Addressing CIs necessitates an interdisciplinary approach, which makes it hard for an individual reviewer to get a handle on the issue. Incremental growth, i.e., many small projects within a particular area, promotes CIs since most often it is unknown at what point the system will crash.

5.0 SOLUTIONS AND PROCEDURES TO ADDRESS CIs

This section lists the procedures, policies, planning processes, and monitoring and compliance programs already in existence for dealing with CIs. Proposed solutions are then presented.

5.1 SUMMARY OF PROCEDURES, POLICIES, ETC. FOR DEALING WITH CIs

Wide ranging solutions were discussed, with a caveat that no matter what the process is, if there is a mandate to develop and to do more than the resource can sustain, you can plan to death, but the mandate overrides the planning process.

- ACMP
- NEPA
- U.S. Army Engineer Districts Section 404 permitting process
- Subdivision review/platting
- Forest Plans
- Forest Service BMPs
- NPDES non-point and point permitting (with associated monitoring)
- Plans of Operations for mining
- Harbor Management Plans
- Areas Meriting Special Attention Plans
- TMDL limitations
- Batch processing of permits for mariculture
- Special Area Plans
- Alaska Department of Natural Resources (DNR) Planning (area plans) and subsequent land use classification
- Regional hatchery plans for salmon hatcheries
- DEC General Permit for discharges from floating camps
- Municipal Comprehensive Plans
- Interagency review teams
- Public involvement
- Enforcement

5.2 PROPOSED SOLUTIONS

- Develop checklists to be used during permit reviews that would help identify CIs. This would ensure that all CIs would have been considered during project review.

- Need to agree on some form of best professional judgement when there is a lack of baseline information. In the case of most biological systems, there is often no measurable indication of an adverse impact until the system crashes.

- Establish interagency working groups to discuss CIs specific to a project. Looking at activities in the pre-construction phase, and sharing information, produces a pro-active approach to looking at CIs.

- Look at history of project reviews to identify areas which may be subject to continual, gradual development. Then agencies may be able to work pro-actively.

- State, federal, and local plans need to be more specific regarding which areas are to be subject to impacts from development, and which areas should be protected.

- Include public involvement in project review.

- Explore batch processing for permitting in strategic areas. This process could, in theory, require all applicants in one region to apply for permits at the same time. A consolidated, location-based review would enhance agencies' ability to consider CIs in the approval/permit condition process. This process could be effective in areas with high sensitivity resources and/or low carrying capacity.

- Promote community education on environmental issues beyond just land use planning.

- Development thresholds need to be implemented at the community level to give developers predictability.

- Develop sensitivity matrices (maybe through the University) illustrating sensitivity and impacts of activities, (i.e., a low impact activity at a highly resilient site would have fewer CIs than a high-impact activity at a site in a sensitive ecosystem).

- Determine a strategic approach to project review. Complex projects may dictate a longer review time allowing for more detailed analysis. Simple reviews would be completed in a shorter time period.

- Refine regulations to provide more direction.

- Tie project review information into a Geographic Information System to be better able to determine where CIs might occur at specific locations.

- Time permits for a project/facility so that they expire together, which would save time for industry and reviewers, and promote consideration of CIs.

6.0 GENERAL COMMENTS

The term "cumulative impacts" currently occurs in the ACMP regulations, but a definition should be included in ACMP regulations to provide a clearer understanding of the term. A definition should address a number of factors including: the kinds of CIs (i.e., whether environmental, socio-economic, cultural or aesthetic will be included), the geographic scope (i.e., will the consideration of CIs be limited to the project site, watershed, or other area), and the time period (i.e., some researchers have suggested impacts be considered over a 20-year time period, which may be defined as a generation). A definition would promote a common understanding of CIs, and provide sideboards for consideration of CIs during project reviews, resulting in fewer arguments within and between permitting agencies. Case law has affected the CEQ definition, and a state definition would provide more sideboards and more specificity. A definition would also limit the ability of the court system to define the term through case law.

7.0 METHODOLOGY CRITIQUE

The DGC participants agreed that a face-to-face meeting was an effective way to learn more about cumulative impacts, and that the meeting complemented the survey approach used in the HDR report. The meeting was an appropriate vehicle for developing consensus.

DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT

MEETING SUMMARY

August 17, 1995

LOCATION: State Office Building, 9th Floor

ATTENDEES:

Tom Lawson
Wendy Wolf
Veronica Slajer

TELECONFERENCE ATTENDEES:

Dick Swanbank
Mary Marshburn

CONSULTANTS:

Alison Smith, Dames & Moore
Gwendo-Lyn Turner, Dames & Moore

1.0 INTRODUCTION

Tom Lawson of the Department of Commerce and Economic Development started the meeting with introductions and gave a description of the project. He explained that the purpose of the meeting was to provide a followup to the HDR report and to answer some questions remaining unanswered after completion of the HDR report. Several specific examples of Cumulative Impacts (CIs) were discussed with their related causes. Procedures, policies, planning processes, and monitoring and compliance programs which could be used to prevent or mitigate these problems were presented and appear in Section 3.0.

2.0 SPECIFIC EXAMPLES

2.1 NOISE IMPACTS

2.1.1 Specific Issues or Problems

- Noise impacts can reduce the quality of recreational experiences.

2.1.2 Causes of the Problems

- Helicopter/aircraft flight seeing and air taxis in wilderness areas.

2.2 SOUTHEAST ALASKA - LOG TRANSFER FACILITIES (LTFs)

2.2.1 Specific Issues or Problems

- Impacts to state waters from LTFs.

2.1.2 Causes of the Problems

- Loss of bark from logs creates water quality problems and smothers the nearshore benthic community.

- LTFs preclude any other uses of their location. This can result in a continued loss of recreational and fishing (commercial and sport) use of the location.

2.3 KETCHIKAN - TONGASS NARROWS

Much of the Tongass Narrows nearshore habitat has been filled for commercial, industrial, and residential purposes.

2.3.1 Specific Issues or Problems

- Loss of habitat.
- Water quality degradation.
- Changes in hydrology.
- Effects on transportation.

2.3.2 Causes of the Problems

- Inability of any of the agencies to say no to more fill due to a lack of established limits and knowledge of the habitat.

2.4 GASTINEAU CHANNEL (JUNEAU)

2.4.1 Specific Issues or Problems

- Water quality degradation in Gastineau Channel.

2.4.2 Causes of the Problems

- Tailings disposal from gold mining (historic and proposed).
- Pollution from other sources (landfills, sewage treatment, etc.).

3.0 DISCUSSION/PROCEDURES

3.1 DISCUSSION

CIs are a difficult issue to grasp. Human nature affects decisions; certainty in decision-making is elusive.

3.2 WHAT PROCEDURES, POLICIES, PLANNING PROCESSES, AND MONITORING AND COMPLIANCE PROGRAMS ARE USED TO PREVENT OR MITIGATE FOR IMPACTS?

- User fees could be imposed for more types of recreational activities. These fees would have to be applied across the board, and would provide an economic connection between the user and the use of resources.

- Local governmental entities can call on their Title 29 powers to regulate use of the air space above their jurisdiction and develop land use plans to control where activities occur. Reducing the amount of time a particular flight service can operate in certain areas would reduce impacts to recreational users. This is called time adjusted zonation, and can restrict flights by area as well as by time of day, thereby reducing the location and duration of the noise impacts.

- The Alaska Coastal Management Plan (ACMP) provides a vehicle by which local jurisdictions can have input into the review process as well as develop local coastal management plans. To properly use the ACMP, however, there needs to be a serious commitment to implementation.

- Environmental Impact Statements can identify CIs specific to a potential project.

3.3 THE NEED FOR A DEFINITION OF CI

Writing another regulation is probably not necessary with the definition already in federal regulation. More regulations are not what is needed, everyone would look for the loopholes between the state and the federal definitions. More regulation would just build more boxes around agencies' ability to operate.

4.0 SOLUTIONS

4.1 TRAIN STAFF

Consensus building skills need to be developed in state agency staff. Training in conflict resolution would result in a more open state government, and would enable staff to work with project developers and other state agencies in a more productive manner. Better communication

may enable more up-front information exchange, a clearer understanding of projects and their impacts, and better resolution of conflicts.

4.2 MAINTAIN FLEXIBILITY

Maintaining flexibility in regulation allows for some discretion in agencies. It can also allow staff with local knowledge to comment on projects in a more productive manner, and possibly prevent CIs.

4.3 EXISTING SYSTEM

Use the existing system, but there needs to be confidence that it will work.

5.0 GENERAL COMMENTS

There was one general comment with which everyone agreed--that it is unrealistic to assume agency money will be increased in order to implement the recommendations of this or the HDR study. No one wants to be the one to say no to projects, but there ought to be a way to recognize an acceptable level of impacts, i.e., develop a threshold. We need to acknowledge that impacts are economic as well as environmental. Development happens where the resources are, and use of the environment has impacts. Some CIs are actually human impacts, having an impact on human experience.

6.0 METHODOLOGY CRITIQUE

Most were appreciative that they had the opportunity to talk about the issue in person, and that their perspective could be voiced.

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

MEETING SUMMARY

August 23, 1995

ATTENDEES:

JUNEAU:

Nate Johnson
Bill Ballard

FAIRBANKS:

Mike Tinker
Dave Bloom

ANCHORAGE:

Jerry Ruehle

CONSULTANTS:

Alison Smith, Dames & Moore
Gwendo-Lyn Turner, Dames & Moore

1.0 INTRODUCTION

Nate Johnson started the meeting with introductions of participants and a description of the purpose of the project. Particular sites where Cumulative Impacts (CIs) have occurred were not discussed, because the discussion centered around the definition of significant and cumulative impacts, where the definitions should be housed, and how they should be implemented.

2.0 DISCUSSION

2.1 DEFINITION OF CUMULATIVE IMPACTS

The Department of Transportation and Public Facilities (DOT&PF) has a mandate to address CIs due to receipt of federal monies through the Federal Highway Administration. Once there is federal funding for a project or activity, the Council on Environmental Quality (CEQ) Environmental Impact Statement (Environmental Assessment (EA), Categorical Exclusion (CE)) preparation guidelines, containing definitions of CIs and "significant", apply to the project. The current DOT&PF procedures include applying the CEQ guidelines and ensuring projects are consistent with local coastal district management plans. The Alaska Coastal Management Program (ACMP) is supported with some federal funding, therefore the CEQ regulations should apply to activities carried out under the ACMP.

The CEQ process has two parts. First, the impacts of alternatives (or the preferred alternative) under consideration have to be determined and whether their status is indirect or direct (secondary or cumulative) identified. Second, the significance of the impacts needs to be determined. If any are expected to be significant impacts, then an Environmental Impact Statement (EIS) is required. If significant impacts are not identified or there is uncertainty, an EA is required to determine significance, or a CE is required if it is easily determined that there are no significant impacts from the project.

There was agreement among participants that the CEQ guidelines should be a baseline for a statewide definition of CIs and "significant", and that the definitions should apply statewide so there is consistent treatment of both. The use of the term "significant" instigates a different response to federal guidelines and is addressed in the CEQ regulations. If impacts are significant, an EIS is required.

Impacts of projects can be both positive and negative. Communities want infrastructure; positive impacts result from the use of those facilities. It was implied that, along with the positive impacts, there may be adverse impacts, since use of one resource will always effect other resources. However, if communities want the facilities, they must be willing to accept the consequences. The level of acceptable impact (particularly if impacts are significant) should be dealt with during the planning stage at the community level through local decision-making.

"Significant" is defined in the CEQ regulations along with a methodology to determine significance of a given impact. Significant impacts also need to be addressed on a local basis, but with a statewide regulation for consistency. DOT&PF doesn't have a problem addressing significant and cumulative impacts, but there need to be guidelines/benchmarks for clarification.

A statewide definition of CIs must mesh with the CEQ definition and, from DOT&PF's perspective, must mesh with how DOT&PF prepares its environmental documents based on CEQ regulations.

2.2 LOCATION FOR THE DEFINITIONS

The appropriate location for a definition of CIs and "significant" would be the ACMP, since it must comply with CEQ regulations. This would provide a consistent basis from which the coastal districts could then build local definitions to represent local interests. A more strict definition in district plans would be acceptable, as long as the basis was statewide.

2.3 IMPLEMENTATION

As described above, the CI and "significant" definitions would be housed in the ACMP with each Coastal District adopting the statewide definitions, at a minimum, or further refining them to incorporate local concerns. Implementation should be through the current local planning process. There was concern that if CIs and significance of these CIs were addressed in DOT&PF's environmental document (including coordination with the appropriate coastal district plans) that another analysis not be required during the coastal consistency review process.

3.0 OTHER COMMENTS

The tools for defining CIs and determining significance of these impacts exist, but a statewide definition is needed which should be implemented at the local level.

DEPARTMENT OF FISH AND GAME

MEETING SUMMARY

August 25, 1995

LOCATION: DFG Conference Room, Anchorage

ATTENDEES:

Wayne Dolezal
Carl Hemming
Don McKay
Glenn Seaman

TELECONFERENCE ATTENDEES:

Janet Schempf
Lana Shea
Dave Hardy

CONSULTANTS:

Alison Smith, Dames & Moore
Gwendo-Lyn Turner, Dames & Moore

1.0 INTRODUCTION

Glenn Seaman of the Department of Fish and Game (DFG) started the meeting with introductions and gave an overview of the Cumulative Impacts Group Discussion project. Major types of impacts were discussed by locations and within the topic of types of impacts, specific issues, causes, and procedures, policies, planning processes, and monitoring and compliance were elaborated upon. An overview of those existing procedures, policies, and planing processes was discussed, and potential solutions presented. The group discussion method was then critiqued.

2.0 MAJOR IMPACTS

2.1 SOUTHEAST ALASKA LOGGING

The impact of logging on habitat is an order of magnitude above impacts from any other activity in Southeast Alaska.

2.1.1 Specific Issues

- Habitat loss
- Loss of forest land to other uses
- Water quality degradation

2.1.2 Causes

- Road construction and lack of maintenance (erosion).
- Magnitude of the activity. For instance, on Chicagof Island 270 km of roads have been constructed to clear-cut 20,000 acres of forest in the last 13 years alone.
- Log transfer facilities.
- Timber harvest.
- Other harvests.

2.1.3 Existing Procedures, Policies, Planning Processes, and Monitoring and Compliance Programs

There are very few mechanisms that have been developed or implemented for dealing with the level of impact imposed by logging. It causes large-scale habitat damage, but by statute and regulation is treated more leniently than other activities that cause less damage. Logging is essentially controllable only through the political process. Some of the controls presently available to address CIs are listed below.

- The Federal Resources Planning Act and the National Forest Management Act - These address CIs of reasonably foreseeable future development and past development on adjacent lands. On federal lands, CIs have to be considered as they affect adjacent private and state lands. This is made difficult by a lack of access to files for private lands and a lack of details in state plans. CIs are actually addressed more through the side issue of sustainable yield of resources. For example, when consensus was reached among biologists on what viable populations meant for the Tongass National Forest under the National Forest Management Act, a new law was passed by Congress and the Forest Service promulgated new regulations to change the definition of viable populations. If the public will does not agree with science, then science is disregarded. The reality is that for many communities, short-term gain often overwhelms many other considerations.

- Endangered Species Act - This is fairly effective when it can be utilized, but there is an overall lack of understanding of species and no adequate program to document them.

- National Environmental Policy Act (NEPA) - The NEPA requires the U.S. Forest Service (USFS) to analyze CIs as part of the environmental impact statement process.

- State Lands - Regulations require the elements of the NEPA process, but not a full Environmental Impact Statement (EIS). Enforcement is substantially less than that necessary to ensure compliance with statutes or regulations. The process for consideration of CIs is in place (NEPA elements) but the managing agency has not allowed them to work.

2.2 SOUTHEAST ALASKA - OTHER ACTIVITIES

2.2.1 Fills and Dredging

There is a shortage of flat land available in southeast Alaska, so deltas and tidal flats are prime building sites. Loss of wetlands and changes in benthic communities have resulted from nearshore fills. With the lack of information and research to establish thresholds, DFG cannot provide DGC with the limits it requires to control fill.

2.2.2 Float Homes

Problems related to float homes include illegal use of sites, preclusion of other recreational and commercial uses, and water quality degradation. The locational aspects are controlled in Sitka through local planning. On Prince of Wales Island the issue has been addressed by trying to convince owners to relocate to specific sites by offering amenities such as power hookups, showers, laundry facilities, etc. DNR has the authority to prevent them from using unpermitted areas, but it is not doing so. Other agencies don't have similar authorities. In Juneau, waterfront property owners have successfully pressured the city into limiting float homes.

2.2.3 Tourism

Increased use of small aircraft and helicopters for low altitude flying and drop-offs in alpine areas is a new area of impact needing analysis. The impacts of marine tour boats dropping off increasing numbers of tourists to tromp around in areas which formerly saw little activity are within the realm of tourism CIs. These CIs are human impacts as opposed to habitat or species impacts.

2.3 INTERIOR ALASKA - PLACER MINING

Placer mining is a big industry in the interior of Alaska. There are whole valleys, such as the Birch Creek drainage north of Fairbanks, where vegetation and habitat has been disturbed. The regulations allow agencies to work with operators on a case-by-case basis, but the overall effect on drainages is not being addressed.

2.4 NORTH SLOPE OF ALASKA - OIL AND GAS

2.4.1 Specific Issues

- Impacts on animal behavior and reproduction
- Wetlands and habitat loss
- Rehabilitation of impacted sites
- Impact on subsistence use is not being addressed

2.4.2 Causes

- Roads and gravel pads/infrastructure expansion
- Oil field operation restrictions (on subsistence)

2.4.3 Existing Procedures, Policies, Planning Processes, and Monitoring and Compliance Programs

- U.S. Army Engineer District (USAED) Wetlands Permit - This has provided a good vehicle for looking at CIs, but only on a project-by-project basis, still lacking an overall look at CIs. If the 1% exemption for Alaska goes through, it would cut the effectiveness of this method.

- Endangered Species Act - Effective when employed.

- State Regulations - Leases have bonding and reclamation requirements including restoration to the satisfaction of the leasing agency (DNR). DNR has not, however, made any attempt to define what the restoration will be. There have been several small-scale restoration projects which have shown some success, but there is not direction from DNR yet.

Overall, the oil and gas industry considers individual and cumulative impacts better than other industries including forestry and mining, because they have had the resources to do so. The emphasis has been to avoid critical habitat whenever possible. This has been fairly successful with the use of technology such as directional drilling. Addressing CIs in the oil and gas industry is essentially economically driven. The industry will work to minimize impacts from those conflicts which do occur, but they resist the issue of compensation for loss of wetlands.

The impact of oil and gas development on subsistence has not been adequately addressed. Potential impacts from oil spills have been addressed, but not the impact of operations. Due to safety factors, subsistence in oil fields and around off-shore platforms and causeways is essentially prohibited. How this has affected subsistence use of resources has not been determined.

2.5 SOUTHCENTRAL ALASKA

2.5.1 Kenai River

Through the Section 309 Program, DFG received funds to do a fairly comprehensive survey of CIs along the Kenai River. The habitat along the river was assessed and problems quantified, but thresholds were not identified. A lot of different groups agree there is a problem and there have been efforts to create new authorities, and to develop policies to coordinate further and tackle these problems. No one disagreed with the DFG approach to identify the problems. This seems to be one way to at least get problems identified, although no attempt was made to establish thresholds.

2.5.2. Urbanization

- Loss of wetlands and floodplains in Anchorage due to pressure to develop the available land.

- Loss of wetlands and intertidal habitat in Seward due to lack of other available land for development.

- Intertidal development for the marine fisheries industry causes loss of habitat.

The problem is a matter of use. What is seen as a loss by one group is seen as a benefit (usually economic) by another group.

3.0 DISCUSSION

The difficulty in addressing CIs is that threshold criteria for biological systems are not very measurable. Also, once you have a threshold, there is little or no clear guidance on what to do with it. A legal requirement for procedures to identify CIs or establish thresholds is useless

without a legal mandate that when you reach a specified threshold of CIs on a particular resource, something substantive happens, such as stopping logging of old-growth forest or preventing tideland fills in eel grass beds. Until such a substantive legal requirement exists, no matter how good the CI analysis is, the political pressures for jobs and economic development will continue to make the best CI analysis ineffective.

The best CIs research is ineffective without the authority to act upon it. Federal timber sales presently come the closest to having the authority to limit whether further CIs are acceptable; however, most often they are careful not to monitor so they don't have to enforce any thresholds that might have been set.

Really large-scale CIs are not reachable by a group like DFG; any approach is more likely to succeed with smaller-scale issues where there is a chance to effect a change. Many times, CIs fall outside DFG's regulatory authorities, and they have to work closely with other agencies who do have the appropriate authorities, e.g., DEC for ocean disposal of seafood wastes.

Addressing CIs on a project-by-project basis is a recipe for habitat loss. It is hard to get the public or project proponents to spend money to assess impacts, collect the necessary information, and develop the policies to protect resources until it is too late. It has become clear that it is not easy to repair habitat, and that technology cannot be relied on to reverse damage once it has occurred. Millions are being spent in the Lower 48 on assessing impacts and working on destroyed systems with few if any positive results. Impact avoidance and minimization is much more effective and cost efficient in protecting habitat. Large-scale planning is necessary to provide habitat protection.

Alaska has the opportunity to be pro-active and learn from CI problems in the lower 48 states. The best way to be effective in addressing CIs is to prevent the impacts from occurring.

4.0 SOLUTIONS

This section took the form of a critique of the recommendations of the HDR report.

1. A top-level commitment to address CIs: DFG supports the concept, but participants were concerned that bringing politics into the discussion could backfire. Local level involvement would be more appropriate and is more likely to be achievable.

2. Pursue more explicit authority to address CIs in legislation, regulations, or policy: The idea of more explicit authority and greater protection at the project review level (e.g., the ACMP standard) wouldn't get much state support. A planning context (i.e., district-wide plans or AMSAs) would have more of a chance of succeeding. One way to address CIs locally would be to revise the ACMP Guidelines to allow (or require) districts to identify and address CI issues in their districts plans. The key to success is to develop support from local communities.

3. Develop more formalized CI assessment guidance to be used by agencies and coastal districts based on existing statutory and regulatory authorities: The ACMP focus should be establishment of guidelines (both 6 AAC 85 and informal) to identify, assess, and manage or control CIs. A legal mandate is necessary so that when a certain level of development is reached in a community or district, then no more development can occur.

4. Establish a CI definition in regulation: Policies don't have the force of law, so a regulation is necessary. CIs should be defined in regulations.

5. Provide training: Local support is necessary in order to understand CIs, then for any assessment to take place.

6. Provide adequate resources: Absolutely! Put resources where districts and state agencies can really get something done.

7. Develop a public education program: Local support and understanding is a necessary component of any approach to preventing CIs.

8. Develop better sources of information and information sharing among agencies: This almost goes without saying.

5.0 METHODOLOGY CRITIQUE

This was a good supplement to the HDR study. Meeting with other DFG staff helps to reinforce concepts and to develop the collective agency thought. It was worthwhile to talk with other staff within the agency and they can appreciate others' views. One participant thought the meeting was "medicinal". One participant was overwhelmed and somewhat pessimistic. Defining CIs is a long process and she is pessimistic about making a difference.

INTERAGENCY/DISTRICTS MEETING SUMMARY

September 8, 1995

LOCATION: Loussac Library Conference Room, Anchorage, Alaska

ATTENDEES:

Glenn Gray, Division of Governmental Coordination (DGC)
Chas Dense, Division of Governmental Coordination (DGC)
Glenn Seaman, Department of Fish and Game (DFG)
Joyce Beelman, Department of Environmental Conservation (DEC)
Keven Kleweno, Department of Environmental Conservation (DEC)
Sue Flensburg, Bristol Bay Coastal Resource Service Area (BBCRSA)
Harriet Wegner, Kenai Peninsula Borough (KPB)
Ron Swanson, Department of Natural Resources (DNR)
Rick Thompson, Department of Natural Resources (DNR)
Janet Burleson, Department of Natural Resources (DNR)
Tom Lawson, Department of Commerce and Economic Development (DCED)
Wendy Wolf, Department of Commerce and Economic Development (DCED)
Nate Johnson, Department of Transportation and Public Facilities (DOTPF)

CONSULTANTS:

Alison Smith, Dames & Moore
Katrina Moss, Dames & Moore

1.0 INTRODUCTION

The interagency/districts meeting was the final meeting of the series of eight meetings on the topic of cumulative impacts (CIs) in Alaska. The first part of the interagency/districts meeting consisted of an initial session during which individual views on the issue were aired. This was followed by a discussion of the DNR review process and how it identifies and deals with impacts in general. A September 6, 1995 memo clarified DNR's position on addressing CIs under the ACMP, and is included in the DNR comments in Appendix C. Some agreed that a separate regulatory review process should not be created, but that addressing CIs should come within each agency's existing purview. One of the more appropriate avenues for dealing with CIs is local land use planning. DCED suggested considerations for addressing CIs involving the local level which was expanded upon by the group. This approach is described in Section 3.

2.0 GENERAL DISCUSSION

Specific impacts and activities that can lead to CIs were identified in the intra-agency and districts meetings in the context of discussing particular example sites or areas. These impacts and activities were presented to meeting participants and it was agreed that we did not need to discuss them further. It was requested that socio-economic impacts be included in the list of specific types of impacts. DOT&PF prefers the CEQ definition due to federal legislation and suggested that agencies and districts need to look at defining CIs in that context. It was pointed out that at the beginning of the project the CEQ definition was used, and HDR later modified it. Some thought the CEQ definition should be used without modification, while one participant noted that there is a large body of case law behind it that would not be included if the State adopted the federal definition.

There was some discussion of the existence of CIs. Everyone listed some CIs but could not agree on their significance. DNR stated that they have been dealing with impacts on a routine basis but have simply not identified them as cumulative impacts. DEC proposed reviewing what other states have done in terms of dealing with CIs. It was then suggested that the title of the Types of Cumulative Impacts list which was handed out, should be changed to Types of Impacts Which Could be Cumulative. Looking at CIs on a statewide basis is unwieldy and should be done on a site-specific or subarea basis.

It was stated that agencies can deal with CIs using their own statutes and regulations and that there are numerous mechanisms available. This statement raised the issue of jurisdiction in terms of review at the local district level, and that there needs to be a partnership between local districts and agencies. The need for a formal plan to aid coastal districts and municipalities was identified. There is little or no money or staff for monitoring and compliance, so cooperation among agencies and sharing of information is essential.

A better understanding of each agency's mission statement and authorities is needed, as well as carefully written and enforceable district policies. The question was raised about whether there is any value in planning for the future if agencies are currently unable to carry out monitoring or enforcement. The group discussed the concept of establishing development thresholds. Implementation or use of thresholds is problematic when limits to development have to be established.

Some felt that federal agencies do not adequately address CIs. CIs need to be identified, addressed, and mitigated for up front, with early cooperation among stakeholders. Public education and awareness is also needed.

DCED stated that it is not possible to proscribe guidelines for the entire state to address CIs. DEC clarified this statement adding that currently there is no mandate to address CIs in smaller projects where there is no federal involvement. This creates gaps where CIs could be overlooked. Some thought that there is a need to take a holistic view of CIs. DEC also thinks that there is a need for an umbrella through a state mandate (i.e., state-level definition or guidelines), because local ordinances are often not inclusive enough to address CIs.

There was agreement among attendees that there is a need for local level implementation and there are three areas for addressing this: 1) planning, 2) local land use regulations/zoning, and 3) project review. There is also a need for coordination among plans, possibly through concurrent amendment of state, local, and federal plans.

BBCRSA stated that there is a lack of knowledge of existing agency mechanisms and it is unclear how the ACMP, Title 29, and agency authorities and processes interrelate. The DNR representative noted that there is a lack of a mission statement for the ACMP program, but the DGC representative thought its mission is adequately addressed in the statutes.

3.0 SUGGESTED APPROACH TO CIs

The following is the basic outline of the approach initially proposed by DCED, and much elaborated upon throughout the second half of the meeting. The outline is presented in Section 3.1 and a full discussion is provided in Section 3.2.

3.1 APPROACH FOR ADDRESSING CIs

I. Encourage Consideration of CIs in the Planning Process
II. Update Statutes and Regulations as Needed
III. Project Permitting Reviews
IV. Monitoring and Compliance
V. Unforeseen CIs

3.2 DISCUSSION OF PROPOSED APPROACH

3.2.1 Encourage Consideration of CIs in the Planning Process

It was the general consensus of the group that addressing CIs at the state level is difficult. CIs are best addressed at the local level during planning. Local implementation could be through planning, local land use regulations (Title 29) because those who live in an area best know its resources and where they are willing to compromise, project review (possibly through a checklist used by the coastal district), and through site specific assessments such as the DFG Kenai River Study. Tools available at the local level include the ACMP and comprehensive plans, as well as limiting development via zoning and local land use controls.

Several recommendations came out of this portion of the discussion. Ensuring that any changes in plans do not conflict with other applicable plans is crucial. Public education and information needs to occur concurrent with plan revisions in order to bring the public into the decision-making process. The public has to understand what CIs are and how to identify them, in order to assist planners to pro-actively address CIs. Guidance would include techniques on how to look for use conflicts, analyzing the sensitivity of where permits are being issued, and listing types of activities known to cause CIs. The amendment process for district plans should be streamlined due to a long timeframe. Getting stakeholders involved can reduce or even prevent lawsuits.

The potential for failure is great if clear implementation mechanisms are not available or developed. Objectives need to be clearly stated. Enforceable policies should be written so that permit stipulations can be based upon them and written clearly so as to be enforceable. Lack of funds for compliance and monitoring will reduce the effectiveness of any system or process. Agencies also need to be brought into the plan revision process so that plans are not at odds with state and federal statutes and regulations. Different levels of plans should be coordinated, i.e., use a strategic coordinated review approach. Internal agency training would improve implementation of district, local and state-wide plans.

3.2.2 Update Statutes and Regulations As Needed

If an agency does not have a adequate authority to address CIs, then they need to pursue changes in their statutes and regulations. Interagency planning should be conducted to result in coordination of agency plans.

DEC participants thought DEC might only need to develop a guidance document, in the form of a mission statement, to bring together the appropriate portions of their enabling legislation and regulations.

3.2.3 Project Permitting Reviews

Using local plans as guides for permitting ensures local expertise and opinions are considered in reviews. Public information, participation, and education is an integral component of project review through input from districts. A dialog needs to be established in "plain English." Avoid the use of jargon, e.g., cumulative impacts. The education process should include information required by the lay person to be able to participate in identifying CIs.

Early participation in and discussion of potential projects by agencies and districts is important. This can allow for discussion of project impacts early in the review process. Coordination of the many parts of reviews, as well as follow-up modifications reviews, can also ensure that CIs are considered in project reviews. DGC suggested using a strategic approach for different levels of review which may allow for more attention being paid to the more complex projects where there is a possibility of CIs developing. For large projects, there needs to be more upfront planning and issue identification. A mechanism to filter out hot spots at state, regional, and local levels is necessary. If there is a related development threshold for that site or area, then

only the specified number of projects would be allowed. There would then need to be an additional mechanism for reassessment to determine whether an appropriate threshold had been established.

Including more routine project reviews on the A and B Lists would free-up reviewers' time for more complex reviews. Coordination of review processes, including timing, such as is done for the NEPA and the U.S. Army Engineer District Section 404 processes, could provide a more comprehensive review of projects and allow for inclusion of CIs analysis at the start of project review.

3.2.4 Monitoring and Compliance

Several participants noted that a significant problem in addressing CIs often lies not with requirements being adequate, but with the agencies' inability to provide adequate monitoring and compliance to enforce the requirements.

Monitoring programs need to be established based on expectations of what agencies can realistically implement. Monitoring requirements need to be based on specific regulations. Coordination of monitoring and compliance visits among agencies can save time and money. Use of a database linking the agencies would improve monitoring.

3.2.5 Unforeseen CIs

If unanticipated CIs show up, an interagency team (including district representatives) would be called together to re-review the site or problem and make recommendations. This would provide a mechanism to bring together the agencies who can then develop an approach to dealing with the problem. Once this interagency team reports their revised approach, it would be taken back to the local level and the local plan revised to address the problem.

3.3 OTHER TOOLS

Internet and other electronic communications could improve the ability of agencies to communicate with each other.

A link to a GIS database could be set up with agencies' permitting records. Considerable data could be synthesized into a single database, which would make information regarding locations of potential CIs more readily visible and quantifiable.

4.0 DISCUSSION OF THE NEED FOR A DEFINITION

The group was not able to come to consensus on whether a definition of CIs is necessary in regulation or statute. While DNR's perspective of the need for a definition was not consistent among divisions, Division of Lands (this meeting's participant) maintains that no definition is necessary, and that other state programs already provide for consideration of impacts, including those which may be cumulative. A specific definition would take away flexibility they believe is necessary to be effective.

The district participants felt that a definition is necessary which should allow districts to further define and develop a framework to reflect the local perspective. One district's participant felt that a NEPA-like process in state regulations would provide a forum for discussion on a project-specific basis for the agencies and districts.

DCED felt that there should be an advisory that CIs should be "considered" but that any guidance should be free of jargon and understandable. Do not add another layer of regulation when there is already a definition in federal regulation.

One DGC participant felt that guidance and legal direction are both needed for consideration of CIs, but not necessarily in definition form. This could possibly take the form of an ACMP standard which could give specific direction to districts and agencies. Another DGC participant felt that it would be nice to have a definition which could be embellished by districts and individual agencies and he warned that in absence of a definition, eventually the courts will proscribe how CIs are to be addressed.

DFG wondered why a definition should be established for CIs when the term is not used or is infrequently used in the ACMP statute and regulations. DEC felt that the federal definition should be used. DOT&PF already addresses CIs through the NEPA process and has maintained that activities under the ACMP are also subject to NEPA and therefore the CEQ definition of CIs.

5.0 FOLLOW-UP

A follow-up in one year was thought to be appropriate. A case study was proposed to look at where there was disagreement in this project.

A suggestion was made that more public and agency education be conducted to promote better participation.

Glenn Gray said other states' 309 program progress should be tracked. There are some good projects in the lower 48 with "real" impacts, and it would be useful to track them.

APPENDIX C

APPENDIX C

AGENCY AND DISTRICTS COMMENT LETTERS ON THE DRAFT REPORT

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 267-2342
FAX: (907) 267-2464

DEPARTMENT OF FISH AND GAME
HABITAT AND RESTORATION DIVISION

September 21, 1995

Alison Smith
Dames and Moore
5600 B Street, Suite 100
Anchorage, Alaska 99518-1641

Dear Ms. Smith:

The Alaska Department of Fish and Game (ADF&G) has complete a review of draft report on the cumulative impacts group discussion project dated September 15, 1995. Our comments and recommendations are provided below. We have also enclosed a marked-up copy of the document for your consideration.

The department's comments are provided in form of: (1) general comments, which provide our overall comments on the report; (2) chapter comments, which provide specific comments on each chapter; and (3) recommendations, which provide additional suggestions. Due to lack of time, we did not comment directly on the interagency meeting summary, although many of our comments on chapters 1 to 5 apply to the meeting summary (e.g., several sections from the meeting summary were included in these chapters) and should be considered in revising the meeting summary.

GENERAL COMMENTS

We appreciate Dames and Moore's effort to undertake this study and prepare the draft report. The assessment and management of cumulative impacts is a complex issue and often contentious issue. In a number of instances, our understanding of the conclusions/areas of agreement differ from that described in the draft report. These differences are noted in the chapter comments. We encourage Dames and Moore to consider these comments and reflect our views in the report.

Several sections of the report also difficult to read, and could benefit from further editing (e.g., see comments on the enclosed copy).

CHAPTER COMMENTS

Chapter 1 -- Introduction

The background paragraph indicates that the federal and state coastal management acts "contain mandates to consider cumulative and secondary impacts." This discussion should substantiate

this statement with quotes from the referenced acts, inclusion of statutory/regulatory citations, and/or references to other documents and sections of those documents that clearly identify those requirements.

Chapter 3 -- Intra- and Inter-Agency and District Meetings

In general, this chapter does not clearly distinguish between discussions based on the intra-agency/district meetings and the inter-agency/district meetings. In some instances, the direction of these meetings differed significantly. The primary purpose of the intra-agency/district (hereafter referred to as "intra-group") meetings was to clarify individual agency perspectives and function as background for the inter-agency/district (hereafter referred to as "inter-group") meeting. The inter-group meeting charge was to try to come to agreement on issues related to the assessment and management of cumulative impacts. Several agency and district delegates, after consideration of intra-group discussions, gained a greater understanding of the bigger picture and consequently were willing to modify change their view. The discussions and synthesis in this chapter seems to be based primarily on the intra-group meetings, and does not fully reflect discussions and compromise at the inter-group discussion. We recommend that this chapter clarify when the synthesis and analysis are based on intra-, inter-, or both meetings. Our comments below note some areas of the discussion where the distinction is not clear.

Sections 3.1, 3.2, and 3.3 -- Locations, Types, and Causes of Impacts: The request for proposals and contract with the Division of Governmental Coordination (DGC) both required the contractor (also a requirement of the HDR study) to summarize the types of locations were cumulative impacts occur, the types of impacts that may be cumulative, and the causes of impacts. These sections represent a reasonable attempt to summarize information provided at the intra-group meetings. At the inter-group discussion, the agenda called for agency comments on the draft lists of locations, types of impacts, and causes. The general reaction of the majority of the group, however, was that there was little value for group to discuss the locations, types of impacts, and causes from as statewide perspective. Most participants felt that it was impossible to effectively summarize the locations, types of impacts, and causes from at statewide perspective: a definition of the problem (i.e., the locations, causes, and effects) of cumulative impacts is necessarily area and issue specific[1]. We recommend that the reaction of many participants expressing the limitations of this list be reflected in the discussion.

Section 3.4 -- Existing Tools Used to Address Cumulative Impacts: The section represents an attempt to identify "tools" used to address cumulative impacts. As applied in this section, "tools" is applied to collectively include statutes, procedures, policies, planning processes, and monitoring and compliance. Statutes, regulations, or policies are often not considered "tools," but rather provide guidance or direction to address impacts. We would consider tools to include mechanisms for controlling individual or cumulative impacts, which includes procedures,

[1] This theme—that cumulative impacts must be discussed in area or issue-specific context to have any meaning—resurfaced many times in the meeting.

planning processes, and monitoring and compliance. We suggest this section be retitled "management guidance and implementation mechanisms," and that use of the term "tools" in text be replaced, as appropriate, with either management guidance or implementation mechanisms. This should clarify the discussion in the text.

The department would also like to reiterate our concerns in the previous sections regarding the comprehensiveness and accuracy of the summary. Table 3-1 is not complete in that it does not represent (nor was this study designed to develop) a comprehensive description of statutes, procedures, policies, planning processes, and monitoring and compliance actions. Because cumulative impacts are most effectively addressed on an area- and issue-specific basis, it is very difficult or impossible (and certainly beyond the scope of this project) to comprehensively complete this table for all agencies. We suggest the table be introduced and retitled "examples of management guidance and implementation mechanisms."

Section 3.5 -- Definition and its Location: A distinction should be made between the conclusions drawn from the intra- and inter-group discussions. The draft discussions seems to based primarily on the intra-group discussions where most of the discussions favored the development of a definition in Alaska Coastal Management Program (ACMP). The concept of a definition was discussed as length in the inter-group meeting. While the group did not reach consensus, most leaned away from the establishment of a definition in ACMP statute or regulation at this time. Some of the concerns raised against the development of a definition include:

- Why establish a definition for "cumulative impacts" or "cumulative and secondary impacts" when the term in not used, or infrequently used, in ACMP statute and regulation? Others questioned why an ACMP definition should be developed without clear, substantive guidance in statute or regulation (e.g., 6 AAC 80.130) to consider cumulative impacts.

- How will an ACMP definition affect other agency statutes and regulations? The applicability of an ACMP definition to other authorities should be evaluated.

- Some suggested that the ACMP already has a definition of the cumulative impacts either through the reference to the Clean Water Act in the standards [6 AAC 80.040(b)] or through the federal Coastal Zone Management Act mandate that state coastal programs to comply with the Clean Water Act.

- Others questioned whether a definition should be developed when cumulative impacts is nothing more than a form of impact that is additive or persistent over time. They maintained that a definition is unnecessary, since the ACMP and other state programs already provide for consideration of all impacts, including those that are cumulative.

ADF&G supports development of a definition or other form of guidance to provide districts and agencies with a better understanding of cumulative impacts, but have not decided whether it

should be accomplished through statute, regulation, or through more informal guidance or education materials. Other agencies and coastal districts have raised some valid concerns that should be considered.

Chapter 4 -- Identification of Common Themes and Areas of Disagreement

Most of the discussion seems to apply equally to all project impacts (both individual and cumulative impacts). We suggest that Dames and Moore be selective about the use of the term "cumulative impacts" (i.e., the acronym "CIs"); in some cases it may be more appropriate to use the generic term "impacts."

Sections 4.1, 4.2, and 4.3 -- Locations, Types, and Causes of Cumulative Impacts: Our comments on Sections 3.1 to 3.3 also apply here.

Section 4.4 -- Current Approaches to Addressing Cumulative Impacts: Our general comments on Section 3.4 also apply here: the identified list of "tools" (management guidelines and implementation mechanisms) should not considered comprehensive. Our comments on Subsection 4.4.1 are provided below:

- Local Land Use Planning: The following statement from this discussion is misleading and does not accurately reflect what the group discussed: "There was complete consensus that Cis are the best addressed at the local level, through the local planning process." Local land use planning and regulation was identified as an important and often critical tool in addressing cumulative impacts. However, the group did not reach consensus that it was "best" addressed at the local level. Instead, the group reach agreement that cumulative impacts are more effectively addressed through planning by local, state, and federal agencies. Local land use planning is very important, but often not the only tool needed to effectively address cumulative impacts. There also appeared to be group agreement that cumulative impact issues cross land ownership and agency jurisdictional boundaries, and an effective approach to assess and control individual or cumulative impacts requires the active participation of federal, state, and local agencies. A case in point is Kenai River fish habitat issues. Land ownership and regulatory/management authorities over activities on and affecting the Kenai River is complex, and an effective approach must involve all levels of government[2]. We suggest this section be retitled to "land use planning" and be revised to reflect the above perspective.

- Best Professional Judgement: This discussion deals primarily with development of

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[2] See *Seaman, G.A. 1995. The continued assessment and management of cumulative impacts on Kenai River fish habitat. Tech. Rpt. 95-6* and *Liepitz, G.S. 1994. An assessment of the cumulative impacts of development and human uses of fish habitat in the Kenai River. Tech. Rpt. 94-6.* Both reports available from the Alaska Dept. of Fish and Game, Anchorage.

thresholds. There was less agreement on the development of thresholds as the discussion indicates. It would be great if could develop thresholds but, as the draft indicates, they are very difficult or often impossible to establish in biological systems. Because of this, I question how much emphasis should be directed to the establishment of thresholds.

- Agency Training: We agree with the concept of training or further education both agency and district staff on the requirements and mechanisms to identify and control cumulative impacts. We suggest the subject on training be expanded to include coastal districts.

- Establish a Regulatory Definition of Cumulative Impacts: See the above comments on Section 3.5.

Chapter 5, Recommendations/Proposed Approach

This section describes what is referred to as a "methodology for addressing cumulative impacts." I believe the five points described in this chapter can be more accurately described as the considerations in addressing cumulative impacts. The below comments reflect my understanding of these considerations as discussed at the meeting.

Section 5.1 -- Encourage Local Planning: This section should be retitled "encourage consideration of cumulative impacts in the planning process." As stated in our comments on "Land Use Planning" in Section 4.4, the inter-group more broadly support local planning by local, state, and federal governments as the most effective vehicle to address cumulative impacts (i.e., not just local government planning). Several participants indicated that adequate planning mechanisms are in place (they may be available but are not utilized), and that no additional planning mechanisms are needed. For example, coastal districts have both Title 29 and ACMP planning for private and borough lands, DNR has planning processes in place to plan for state lands, and many federal agencies have planning mechanisms for federal lands. We suggest the first paragraph under this discussion be changed to reflect a broader support for planning at all levels of government.

We also believe that the following sentence of the second paragraph under this section does not properly characterize the inter-group discussion: "Ensuring that any changes in plans are consistent with other applicable plans is crucial." While we agree that local, state, and federal agencies should coordinate their efforts to minimize inconsistencies and duplication, agencies must maintain the option to provide more stringent requirements.

Section 5.2 -- Update Statutes and Regulations in Response to Revised Local Plans: This discussion does not reflect the discussion at the inter-group meeting. This section should be retitled "update statutes and regulations as needed." This recommendation was not tied directly and exclusively to local authorities. Instead, it was directed specifically at agency statutory and regulatory authorities (i.e., not the ACMP), and was borne from a DNR recommendation the

agencies revise their own statute and regulations ("if your agency's authorities are not adequate, then fix it"). ADF&G supports making maximum use of other state authorities, but does not want to completely rule changes to the ACMP. Agency authorities have a specific focus and is restricted to that agency. In contrast, ACMP's crosses jurisdictional and landownership boundaries and may be an appropriate tool in some instances. The ACMP statutes and regulations may also warrant change in the future to address cumulative impacts.

Section 5.4 -- Monitoring and Compliance: This section is unclear and should be expanded to reflect group discussion. Basically, several inter-group participants noted that a significant problem in addressing cumulative impacts often lies not with the requirements being adequate, but with agencies inability to provide adequate monitoring and compliance to enforce the requirements. Several participants noted that this issue should be addressed before any new legal requirements are imposed.

Section 5.5 -- Unforeseen Cumulative Impacts: We also believe that this discussion does not fully reflect the discussion at the inter-group meeting. The way I understood this discussion, is that this was intended to address specific areas or issues where cumulative impacts are a problem, have not been adequately addressed through other mechanisms, and otherwise require special consideration. The Kenai River was identified as an area of special concern and was the focus of a comprehensive cumulative impact assessment project under the Section 309 Enhancement Grant Program. Several such issues were identified in the ADF&G and other inter-agency meetings which could also be addressed in a more comprehensive, focused manner. These could be addressed through coordinated efforts with the appropriate regulatory agencies and affected coastal districts and communities.

Chapter 6 -- Methodology Evaluation and Recommendations

We agree with the discussion with respect to positive aspects of the methodology. This process assisted agencies and districts better understand others concerns and recommendations regarding the assessment and management of cumulative impacts. This project provided a clearer understanding of the problems and helped to identify solutions to the problems. However, the methodology, as applied, fell short of fully achieving its goal to develop consensus of the problem and identify solutions. Most the inter-group meeting focussed on discussing the problem and what agencies were currently doing to assess and control cumulative impacts. We did not specifically outline project followup, or the actions that needed to occur after completion of this project to bring the discussion to conclusion. The failure of the inter-group meeting to bring closure to discussions could have been avoided through more active facilitation and a with a longer meeting (e.g., an additional half day to bring closure and identify future actions).

RECOMMENDATIONS

Additional department recommendations on issues raised in the intra- and inter-group discussions are outlined below. These are provided to identify measures that could help bring some closure

to study and clearly define where we go from here.

1. *Further Explain Agency Processes and Authorities for Assessment and Management of Cumulative Impacts*: Several inter-group participants strongly advocated the use of existing federal, state, and local processes to address cumulative impacts, maintaining that these processes are adequate and they have the statutory/regulatory basis to control cumulative impacts. In contrast, many of state and coastal district participants in the HDR survey and some discussions in the intra-group discussion (documented in Appendix B of the report) indicated that the processes are inadequate and that agencies lack the statutory/regulatory authority (or are unaware of such requirements) to control it. Several participants suggested that this discrepancy be addressed through a education effort to better inform the public, local governments, and agencies of agency processes and legal basis (individual agency and ACMP) for addressing individual and cumulative impacts. ADF&G would support such an education effort; we do not believe no action, when districts have expressed confusion, is not an option.

2. *Clarify ACMP Ability to Address Cumulative Impacts Through Plans and Project Review*: There are diverse and conflicting opinions among agencies and districts on the extent which cumulative impacts can be addressed under the ACMP. Most agree the cumulative impacts can be addressed through district-wide and AMSA management plans. However, the Coastal Policy Council (CPC) denied approval of cumulative impact policies in several district plans that required "consideration" of cumulative impacts[3]. At a fall 1993 CPC meeting, several members questioned the legal ability to address cumulative impacts under the ACMP. In past years, ADF&G has tried to address cumulative impact concerns during project reviews and were informed by DGC that we could not address cumulative issues under the ACMP in project review in the absence of a district policy to support it. While some agencies say you can address cumulative impact issues under the ACMP, others say you can't. After three years of addressing these cumulative impacts under the Section 309, these questions are still not answered. It would be irresponsible to continue disapprove policies related to cumulative impacts when there is no movement to answer the questions. Some effort needs to be undertaken to bring closure to these questions.

3. *Develop Guidelines for Districts and Agencies to Address Cumulative Impacts*: In both the HDR study and intra-group meetings, districts and agencies where unaware how to identify, evaluate, and control cumulative impacts. Some general guidance should be prepared for districts and agencies. In the inter-group meeting, DNR noted that the public and agencies often do not clearly articulate the problem, the rationale and information to support, and the actions that are needed to address impacts in their review

[3] Approval denied due to procedural questions (it was unclear what would be required to "consider" cumulative impacts) and legal questions (what is the legal basis in the ACMP for these policies). One CPC member suggested that the CPC retroactively withdrawal all cumulative impact policies from district plans.

of plans and projects. This would complement the recommendation in 1 above by describing how reviewers can more effectively identify cumulative impact concerns within existing processes. Either general guidance could be developed or specific guidance for certain issues, areas, or industries.

4. *Continue Support Comprehensive and Focused Efforts to Address Important Cumulative Impact Issues*: The clearest area of consensus in this study is that cumulative impacts are best addressed in the planning context. ADF&G recommends that the state continue to support the assessment and resolution cumulative impacts issues through planning (includes problem identification, establishment of goals and objectives, cumulative impact assessments, development of policies or guidance, and identification of implementation mechanisms). Both ACMP and other sources of funding should be sought to address these issues.

This concludes our comments and recommendations on the draft report. Please call if you have any questions on our comments or I can otherwise assist in revision of the report.

Sincerely,

Glenn Seaman
ACMP Coordinator

cc to Cumulative Impacts Project Management Team:
Fran Roche, DEC
Sue Flensburg, BBCRSA
Linda Freed, KIB
Rob Walkinshaw, DNR
Tom Lawson, DCED
Nate Johnson, DOT&PF
Glenn Gray, DGC

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

OFFICE OF THE GOVERNOR

OFFICE OF MANAGEMENT AND BUDGET
DIVISION OF GOVERNMENTAL COORDINATION

☐ SOUTHCENTRAL REGIONAL OFFICE
3601 "C" STREET, SUITE 370
ANCHORAGE, ALASKA 99503-5830
PH: (907) 269-7470/FAX: (907) 561-6134

☑ CENTRAL OFFICE
P.O. BOX 110030
JUNEAU, ALASKA 99811-0030
PH: (907) 465-3562/FAX: (907) 465-3075

☐ PIPELINE COORINDATOR'S OFFICE
411 WEST 4TH AVENUE, SUITE 2C
ANCHORAGE, ALASKA 99501-2343
PH: (907) 271-4336/FAX: (907) 272-0690

September 25, 1995

Ms. Alison Smith
Dames and Moore
5600 B Street, Suite 100
Anchorage, AK 99518

Dear Alison:

Thank you for the opportunity to review the draft report on the Cumulative Impacts Group Discussion Project. This letter identifies my major concerns and general comments. Specific comments are written on the original draft which has been sent to you by air courier. I did not review comments of the other members of management team before submitting these comments.

General Comments

The draft should be reviewed by a professional editor not familiar with the topic of cumulative impacts. This step would assure that punctuation and grammar errors were identified and that concepts were adequately developed and defined. Specifically, the document should be rewritten to:

- correct misuse of commas, colons and slash marks;
- ensure that punctuation is consistent, especially in the tables;
- identify where hyphens are appropriate;
- define concepts so a person not familiar with cumulative impacts will understand the discussions;
- identify and define jargon; and
- ensure that concepts are fully developed (I had a difficult time understanding what you meant in a considerable number of sentences).

Specific Comments

The purpose of the project needs to be clarified. For example, I do not think the purpose of the project was to describe legal authorities (as stated in the executive

summary) or to *propose* new approaches to address cumulative impacts (Sections 1.2 and 2,0). You may wish to refer to the RFP and the contract when revising the description of the project's purpose.

Section 3.4 implies that the existing tools to address cumulative impacts are sufficient if they were implemented. I think a number of participants felt that even if existing tools were fully implemented, cumulative impacts would not always be adequately addressed.

Throughout Section 3, it is not clear if Dames and Moore is making specific statements or if the statements summarize the viewpoint of one or more participant.

In Section 5, the text implies that the group *recommended* an approach to address cumulative impacts. My understanding of the RFP was that we were to *explore possible* solutions to address cumulative impacts rather than develop recommendations.

The summary of the interagency/group discussion needs considerable revision. I suggest that you listen to the tapes again to clarify what the group discussed. For example, it was my understanding that the group favored addressing cumulative impacts at the local level during planning but thought CIs could also be addressed during project review which would involve state agencies in addition to municipalities.

The discussion of the methodology recommendations in Section 6.0 should be changed to reflect the various opinions of the participants. While some participants thought the group discussion approach was better than a survey approach, others thought both approaches were valuable. For me, the survey approach is valuable because it reached a broad number of people in a manner where they could frankly answer questions without concern that their answers might conflict with others in their group. Group discussions, on the other hand, were useful to brainstorm ideas and to discover where participants agreed or disagreed. A possible limitation of group discussions is that a small representation of an agency or the districts could interject their own opinions without relaying the broad spectrum of opinions within an agency or the districts. In summary, I think both approaches are useful, but both approaches have limitations.

Overall, I think the analysis of where participants within and among agencies agree or disagree could be more thorough. With some additional work listening to the tapes and developing a more in-depth analysis, I think the report could be expanded to better reflect information that was discussed during the group discussions. Without explanation of terms such as "check list," "development thresholds," "035 Decision Process," "DOG G List," "SB 308," readers will miss much of the content of the discussions. This is especially true for suggestions to improve the assessment,

consideration or control of CIs that were discussed during in-house discussions. Considering many of the in-house discussions were summarized in point form, valuable information seems to be missing from the report.

Again, thank you for the opportunity to review the draft report. I look forward to reading the final report.

Sincerely,

Glenn Gray
Project Analyst

cc: Cumulative Impacts Management Team

MEMORANDUM

Department of Natural Resources

State of Alaska

Division of Land, Southcentral Region

TO: Alison Smith
Dames and Moore

DATE: September 21, 1995

THRU:

FILE NO.:

TELEPHONE NO: 762-2270

FROM: Rob Walkinshaw
Natural Resource Officer

SUBJECT: Draft Report on Cumulative Impacts

The Alaska Department of Natural Resources has completed a review of the draft report on the cumulative impacts group discussion project dated September 15, 1995. Attached are comments on the Draft.

Also attached is a memo from Ron Swanson to Diane Mayer dated September 6, 1995 that states the Department's position on cumulative impacts. Please include a copy of this memo in an Appendix in the final draft of the report.

Thank you.

cc

Rick Thompson
Janet Burleson
Ron Swanson

MEMORANDUM
DEPARTMENT OF NATURAL RESOURCES

State of Alaska
DIVISION OF LAND

TO: Rob Walkinshaw
DNR Project Leader
CSI Project (309)

DATE: September 20, 1995

TELEPHONE NO: 465-3404

FROM: Janet Burleson Baxter
DNR/ACMP Coordinator

SUBJECT: CSI Interagency Meeting
September 8, 1995

I had the opportunity to attend the Interagency Meeting for the 309 Cumulative and Secondary Impact (CSI or CI) Project on September 8 and to review the draft report by Dames and Moore. I'd like to share my thoughts and comments both on the meeting and on the draft report.

The tone of the meeting was generally constructive. I thought there was good representation from each department. The representatives participated with enthusiasm and I think the session provided a good opportunity for departments and districts to share thoughts/ideas and educate other participants on procedures that departments and districts follow to do their respective jobs. Ron Swanson and Rick Thompson did a good job of describing what statutes DNR follows and how we conduct our agency reviews and decision making process to address issues that come up, including those issues that could be and are considered real or potential cumulative impacts. Other agencies, particularly DF&G and DEC described their procedures and frustrations in dealing with impacts due to the lack of infrastructure or regulatory support.

I have some concerns with the draft report. I am unclear from the draft what the options are to comment but I trust that there is the ability to do that. Therefore I am sending my comments to you as the project leader. Please forward them as appropriate.

DNR has consistently stated that agencies/districts need to be careful in dealing with the term "cumulative impacts" as a buzz word. Oftimes the problem is not that a project has not been subjected to enough scrutiny to address potential impacts, but that there is not enough monitoring and compliance. We have also consistently stated that the ACMP is not the place to deal with CSI's nor CI's. I agree with the statement in the report "Everyone agreed that a separate regulatory review process should not be created, but that addressing CIs should come within each agency's existing purview". DNR's position as to where CIs should be addressed is clear. (See attached DNR memo dated September 7, 1995)

The report states that "the CEQ definition should be used without modification...". I am not sure that the group agreed that the CEQ definition should be used. I think the agreement was that IF we agree that a definition is needed AND we agree to use the CEQ definition THEN the definition should be used as originally written, not as modified.

I am not sure that there was agreement that "there is also a need for an umbrella through a state mandate, because local ordinances are often not inclusive enough to address CI's" as stated on

page 3 of the draft dated 9/14. We discussed the issue, but I'm unclear that there was agreement.

I enthusiastically supported the recommendation from DCED, Wendy Wolf, on five items that could be used as a process to deal with perceived impacts. The ideas were crisp and clear. As I recall there was some discussion on the 5 suggestions and we agreed that there were actually 6 components. The 6th was either 1) education on existing agency process/statutes/regulation and various plans or 2) monitoring and compliance. In either case the separate item of education was not included in the list. The report incorporates the idea of education, but does it is not listed as a stand alone part of the process. I was unable to attend the afternoon session and the decision to delete education as a stand alone item may be a result of the afternoon discussion.

Since I was not present for the afternoon segment I missed the opportunity to "flesh out" the 5 topics listed in the report but the 5 topics in the report are not as clear as my recollection from the morning session. For example, number 2 in the draft report, "Update of statutes and regulation by agencies in response to revised local plans" does not reflect the discussion. As I recall the morning discussion pointed to agencies updating their respective statutes and regulations for the authority and support to address impacts, not necessarily to update state laws and regulations in response to plans. Plans should reflect existing statues and regs, not the other way around. As I recall number 5 was something like...agencies/planners/districts will revisit projects or plans on a case by case basis during a consistency review or by another public process if the perception is that agencies missed a major issue somewhere along the line.... The concept was to provide a mechanism to bring parties to the table when there is an unanticipated impact or project. DNR already does this by holding public hearings at the request of various entities or as required by several statutes e.g. AS 38.05.945 and .946. We also address issues by instituting management plans or special use areas to address specific concerns e.g. the *Caribou Hills Management Plan* was developed in response to concerns about the proliferation of cabins in Caribou Hills on the Kenai. I don't think this concept is adequately presented in the draft report.

I agree with the draft plan that there should be consistency in local and state plans and that plans should not conflict. I also agree that enforceable policies need to be written so that the polices are clear and enforceable. DNR and other ACMP participants are currently working on guidelines for enforceable policies that will clarify how to write the policies.

These comments reflect my thoughts from a quick review of the draft report. I hope the comments are useful. Please contact me if you have any questions.

Attachment: DNR Memo on CSI's, September 7, 1995

cc: Ron Swanson
Rick Thompson
Mary Kaye Hession

MEMORANDUM

Department of Natural Resources

State of Alaska

Division of Land, Southcentral Region

TO: Diane Mayer
Director

DATE: September 6, 1995

THRU:

FILE NO.:

TELEPHONE NO: 762-2692

FROM: Ron Swanson
Director

SUBJECT: Cumulative and Secondary Impacts

The Department of Natural Resources has clarified its position on cumulative and secondary impacts. The position is described below.

1. The ACMP is not the place to address cumulative and secondary impacts. If there are problems, they should be addressed under each agencies statutes and regulations, not the ACMP.

2. There is already a great deal being done in DNR to address CSIs. They may not be called CSIs, but in effect, the impacts that are addressed as a matter of course in DNR's day to day business are cumulative and secondary impacts.

3. If there are problems within an agency addressing cumulative and secondary impacts, a solution should be tailored to the specific problem and issue, and division. Solutions must acknowledge that each activity and division within DNR often operates under different statutes and regulations. A generic solution will not work.

4. The problems with CSIs that are often talked about are 1) real problems that exist on the ground and 2) legal problems.

DNR does not find evidence in the field that there is a real problem. When there is a problem with an area receiving significant impacts, the problem is primarily from lack of monitoring and enforcement, not from inadequate consideration of cumulative impacts.

The solution to the real problem is to not make changes to the way DNR identifies, considers, and addresses cumulative impacts. Things are working good enough. The focus needs to shift away from cumulative and secondary impacts to implementation, monitoring, and enforcement.

Diane Mayer
Cumulative and Secondary Impacts
September 6, 1995

DNR does find that there is a legal problem. DNR has been sued for not identifying and considering certain impacts. To address the legal problem, DNR needs to do a better job when scoping a project during the preplanning stage of an adjudication process to set the parameters of the evaluation to include a broad range of impacts, including those that are considered "cumulative and secondary." This will be done within existing statutes and regulations. New statutes and regulations are not required.

Regardless of what DNR does, we will still end up in court. Often legal suits are driven by political considerations that are not tied to the treatment of cumulative impacts. No matter what DNR does and how elaborate we get with statutes, policies, procedures, and the decision making process, there will be ways to find problems and sue DNR.

Please call if you have questions.

cc.

John Shively
Marty Rutherford
Division Directors

Alison -
thanks for
chance to
comment Dale

EXECUTIVE SUMMARY

The Alaska Coastal Management Program (ACMP) established standards and guidelines for local coastal planning and review of proposed development projects in Alaska's coastal zone. The Coastal Zone Management Act and the Alaska Coastal Management Act both refer to cumulative impacts and contain mandates to consider cumulative and secondary impacts of development. The overall cumulative impacts project is designed to define the problem, identify how other states have approached the problem, and to describe the legal authorities. One phase of the project includes surveying State agency and coastal district personnel in order to assess the methods presently used to identify, consider, and control cumulative impacts of growth and development. The Group Discussion component of the cumulative impacts project is intended to complement the individual survey portion completed in June, 1995 by HDR Engineering.

The group discussions provide an additional perspective to the questions asked in the HDR survey, explore alternatives to better address CIs, and attempts to build bridges between agencies in an attempt to develop a common understanding of CIs. Fifty agency/district representatives participated in seven intra-agency and districts meetings and one interagency meeting. The participants are considered to be the "references" for this project.

~ #?

not all 50 attended interagency meeting.

When asked to identify locations of CIs, the intra-agency and districts participants came up with examples throughout the state, but primarily in the populated and industrial/commercial regions. Some impacts, such as sanitation problems and recreational and subsistence conflicts, occur in rural areas.

All participants were able to identify statutes and regulations which provide direction for addressing impacts. Most named several other tools currently used to address CIs. There was consensus that there are many existing tools which allow CIs to be looked at, analyzed, and planned for. The main reasons for failure of these tools in the cases discussed were that they are not being implemented because the agencies and planners have not been trained in their application, or politics have intervened in those cases where appropriate solutions have been proposed and consensus gained, or laws and regs not enforced. In some cases agency authorities (tools) do not reach through the levels to address issues which should be addressed through local land use planning.

↳ levels of what? clarify!

An approach to addressing CIs through local planning with agency input was developed during the Interagency/District meeting. The basic approach involves encouraging addressing CIs in local planning and appropriate revisions to plans; updating statutes and regulations ~~to respond to revisions in local plans~~ of agencies to address CI's and Significance; project reviews; monitoring and compliance activities; and establishment of an interagency team to re-review the plans when unforeseen impacts show up. Public education and participation are essential in local planning, revisions to plans, and in project review.

I would rather see it recycled through existing Review framework.

Throughout the project, participants were asked to evaluate the pros and cons of the small group discussion methodology for achieving the goals of the project. Generally, the face-to-face meetings were considered quite valuable. The process of face-to-face meetings is more direct, closer to reality, and brings out more details than a telephone survey. The meetings complemented the survey approach used in the HDR report, and were a positive experience for the agency personnel.

So, what is result, conclusion of whole process & recommendation(s) for follow up - where to from here?

I still want to emphasize a top down flow from CEQ Regs (& definitions) through ACMP to local District Planning efforts.

DOT&PF cannot concur that CI's "by definition" are negative. Discussion in this report follows that lead too closely. (*)

1.0 INTRODUCTION

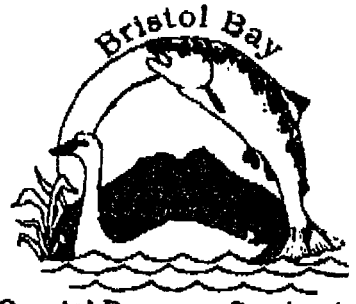
1.1 BACKGROUND

The Alaska Coastal Management Program (ACMP) established standards and guidelines for local coastal planning and review of proposed development projects in Alaska's coastal zone. The Coastal Zone Management Act and the Alaska Coastal Management Act both refer to cumulative impacts (CIs) and contain mandates to consider cumulative and secondary impacts of development. The overall CIs Project is designed to define the problem, identify how other states have approached the problem, and to describe the legal authorities. One phase of the project involves surveying State agency and coastal district personnel in order to assess the methods presently used to identify, consider, and control CIs of growth and development. The Group Discussion component of the CIs Project is intended to complement the individual survey portion completed in June, 1995 by HDR Engineering.

1.2 PROJECT DESCRIPTION

The purpose of this component of the CIs Project was to hold group discussion meetings among state agency and coastal district personnel in order to provide followup to a report produced by HDR Engineering as part of a broader effort to deal with the issue of CIs. The HDR Report resulted from a formal telephone survey of agency and district personnel. The survey was an attempt to identify what CIs are occurring and where, how districts and agencies currently address them, and to evaluate the overall effectiveness of existing techniques, as well as provide suggestions and recommendations on how to further address the issues. The group discussions addressed in this report provide an additional perspective to the questions asked in the HDR survey, explore alternatives to better address CIs, and attempts to build bridges between agencies in order to develop a common understanding of CIs.

This project involved an interactive discussion on what districts and agencies see as the on-the-ground issues related to CIs and what can be done to better address them both within and outside of the ACMP. The participants included: the Departments of Natural Resources (DNR);



Coastal Resource Service Area
P.O. Box 849, Dillingham, Alaska 99576
(907) 842-2566 or 842-2667 - FAX (907) 842-2439

September 22, 1995

Alison Smith, Dames & Moore
5600 B Street, Suite 100
Anchorage, Ak. 99518-1641

Dear Ms. Smith:

The Bristol Bay CRSA has reviewed the draft report prepared by Dames & Moore. The following comments represent my views as one of two district members on the management team for this project and as a participant in both the district group discussion and interagency/district meeting.

The purpose of the group discussions project was to gain a better understanding of what agencies and districts really mean when we talk about "cumulative impacts", how they are or are not addressed and the reasons why, and the basis for solutions that were identified during the discussions. Individual meetings were held to clarify and articulate the perspectives of agencies and districts on these issues, and were to also serve as the basis for identifying and working through areas of agreement and disagreement at the interagency/district meeting. The consultant was responsible for summarizing these meetings, facilitating the interagency/district meeting, and preparing a synthesis and analysis of the discussions.

I do not feel the draft report captures the key points of discussion and participants viewpoints on them. Although the contractual hours allocated to preparing the intra-agency and district meeting summaries may have been insufficient to prepare more in-depth summaries, many of these points were revisited at length and, in some cases, modified during the interagency/district meeting. The substance of what was discussed may have been difficult to capture because of the rambling nature of the discussion, however this was also due to the way in which the meeting was facilitated.

I also have concerns about the accuracy of many of the statements in the report. As one example, the proposed approach outlined in Section 5.0 states that agencies will need to amend their statutes and regulations to meet the management direction provided in local plans, and would also be responsible for implementing the changes in district plans. This is not what I recall was said at the interagency/district meeting. What was said is that if an agency does not have adequate authority to address cumulative impacts, then it is incumbent upon that agency to pursue statutory or regulatory changes. Agencies should strive to meet the intent of local plans but only to the extent to which their authorities allow.

Alison Smith/Dames & Moore September 22, 1995

Other statements in the report are misleading, such as "[the] group suggested establishing development thresholds to control impacts." (page 2 of interagency/district meeting summary). The introductory paragraph under Section 4.4.1 (Other Suggested Approaches) notes there was "general agreement" on these approaches, including development thresholds. Discussion of development thresholds, at least at the interagency/district meeting, focused more on the difficulties of setting and implementing thresholds rather than as a suggested approach to control impacts.

The content in the sections of the report that discuss the need for a regulatory definition of cumulative impacts is essentially the same and could be consolidated under one section. These sections (if not consolidated) should reflect more of the discussion at the interagency/district meeting. My recollection is that many of the participants by the end of the meeting felt it was premature to include a definition in the ACMP. This shift from the earlier group discussions should be noted at least.

I have not attempted to rewrite portions of the report given the amount of time this would require, but have marked up the draft report and interagency meeting summary with suggested changes. These changes are mostly editorial and also include notations in the margins on sections that need clarification.

Please feel free to call if you have questions about my comments.

Sincerely,

Susan Flensburg
Program Director

cc: Linda Freed, KIB
Glenn Gray, DGC
Nate Johnson, DOT/PF
Tom Lawson, DCED
Fran Roche, DEC
Glenn Seaman, ADFG
Rob Walkinshaw, DNR