How to do Coordinated Resource Management

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Coordinated resource management--CRM-is a process by which natural resource owners, managers, and users, working together as a team, formulate and implement plans for the management of all major resources and ownerships within a specific area and/or resolve specific conflicts.

Seldom are natural resource problems confined to single ownerships, single resources or single resource uses. Moreover, almost never does a single agency or group have all the answers and expertise needed to deal with resource management issues or conflicts.

Especially helpful in these situations is an approach that involves various resource disciplines, agencies, and users, working together from beginning to end, to develop the rationale upon which management decisions are based. In such a process, resource owners and managers do not abrogate their authority and responsibility to make final decisions. But they make those decisions after listening to the viewpoints, experiences, and options of others. Consensus, not voting, is a fundamental element of CRM.

The CRM process has been used successfully to plan management for a variety of areas and uses: subwatersheds, including riparian areas; federal wildlife refuges and state wildlife management areas; stream corridors; farm and ranch operating units or groups of units; federal, state, and private forest and range units; recreational areas; and combinations of such areas and uses where coordination between an area's uses and/ or between intermingled or interdependent land ownership is desirable. The process also has been used successfully to resolve specific resource-use conflicts, such as depredation of agricultural crops by wintering geese near waterfowl refuges and water contamination from dairy farm lagoons and livestock feedlots. In fact, there are many resource problems for which the CRM process is the best solution and, in some cases, the only chance for a reasonable solution.

Participants in CRM efforts to date have included a variety of interests, from private landowners to a whole host of federal and state agencies, city and county governments, universities, Indian tribes, sportsmen's clubs and outfitters, environmental organizations; lumber companies, conservation districts, and other local districts. Regardless of the resource management issue involved, however, or the interest groups, the main objective of the CRM process is to put coordinated resource management on the land. How to achieve coordinated resource management is the question. The CRM process described herein has proved successful in achieving this goal.

What applicability CRM?

The CRM process fits practically every natural resource management situation. For example, all resource management, whether on public or private land, has important wildlife habitat and watershed quality implications. Moreover, there is always the probability of second- and third-order consequences resulting from any activity on the land; these can be far reaching and have significant impacts. Authority for wildlife management usually is invested in a state agency, which suggests that this agency's representative should always participate in formulating a resource management plan. Managing for improved watershed quality and reduced adverse off-site consequences also suggests the desirability of providing that kind of special assistance to the resource owner or manager who makes the final decisions.

With large blocks of public land, such as wildlife refuges, national forests, or rangelands, the CRM process offers management agencies the benefit of advice from knowledgeable resource users who have become thoroughly familiar with the planned area over a span of years, sometimes a life-time, which compensates for ever-changing agency personnel.

Where there are two or more ownerships, resources, uses of resources, and/or resource users involved or affected by an existing qr potential problem or conflict, the CRM process may be the only effective way to resolve or forestall that problem or conflict. CRM is just as applicable to a single ownership involving multiple resources and their uses as it is to several ownerships having multiple uses in common. For example, CRM's applicability in implementing the federal Conservation Reserve Program and in helping farmers and ranchers to plan their future land use and resource management might be given some consideration.

Initiating the CRM Effort

Coordinated planning is usually initiated because of a resource problem or conflict that those involved want resolved. However, good coordinated plans also exist where those involved had no immediate problem but resorted to CRM to formulate a plan that would keep problems from developing.

Preferably, a coordinated plan is initiated at the local level by a request from a person, group, organization, or agency that perceives the need for a group-action approach to resolving or averting a local resource problem. A conservation district, for example, might process a request for a coordinated plan because these districts are legal subdivisions of state government with responsibility for the land and water conservation. Processing should include assignment of priorities and creation of timetables and schedules with the other agencies, organizations and interests involved. Because conservation districts are public bodies, most individuals, agencies, and organizations are more likely to respond to a request that they participate in a coordinated plan than if the request came from elsewhere. If the local conservation district does not process such requests for some reason, the requests can be presented and discussed with the landowners involved and local representatives of the agencies and groups that should be involved.

It is important to review briefly with these interests how the CRM process works. This will help them decide whether.-or not to proceed. If the decision is to proceed using the CRM process, it is best to list immediately those who should be invited to participate. Also, a chairman must be selected who is responsible for guiding the organization of the planning group, assembling available inventory data, scheduling meetings, and otherwise motivating the individuals involved in the planning process.

A moderator is also needed. This individual conducts the planning sessions, which requires some special talents. A moderator in the CRM process requires competence, both from a professional point of view and from the standpoint of working with people. The process is not a fixed routine. Some individuals have the ability to moderate group discussions and achieve consensus; others will never be able to do so. In highly controversial or complicated situations, an "outside" moderator will likely be more effective than a local moderator because of perceived bias. IT the group is in reasonable agreement on both the issues and the need for a coordinated planning approach, a local moderator is usually acceptable.

Collecting Relevant Data

Prior to the first group planning session, such items as maps, available resource inventory data, and other relevant information, should be assembled for use, as needed, by the group. There is no substitute for a sound, ecologically based resource inventory as the foundation for decisions aimed at meshing the management of all major resources in the planned area. It is also important to recognize, however, that it is not necessary to have on hand, or to gather prior to the first meeting, all of the inventory data that might conceivably be desirable. Good planning decisions can be made with minimal data if those data are reasonably accurate. Those data must be augmented, however, by that special kind of information that is stored in the brains of those participants who have an intimate knowledge of the planned area and the issues involved.

If it is determined during the planning process that additional data are needed to make a decision on a particular issue or item, those data can be obtained during the planning process. Meanwhile, many other decisions can be made on the basis of the data available, and the remainder of the plan need not wait for such one-issue data to become available. It is important that the planning process begin and proceed while group interest is high.

A coordinated plan must be open-ended-flexible~-so it can be amended when necessary. This reduces the necessity of having thorough data at the inception of planning. In fact, it is best to move ahead and plan on the basis of available knowledge, with the intention of amending the plan at least annually. No matter how much data is available at the beginning of the exercise, experience proves that amendments to the original plan are inevitable.

Some coordinated plans stagnate because of an overemphasis on inventories, which also inflate costs. This is likely a result of the tendancy to consider the plan itself as the end product. In reality the plan is merely a starting point foraction on the land, which is the real objective of planning.

The Planning Group’s Make-up

Agency representatives in the local planning group should be qualified and generally have the authority to make decisions for their agencies. Otherwise, an intolerable system of approval is established; individuals who did not participate in developing the rationale upon which decisions were based might veto parts or all of a plan. This brings about a repeated reconvening of the local planning group, which blocks progress and creates dissention and futility.

In principle, the CRM process eliminates unilateral decision making, which often is the cause of unacceptable conflicts in resource management. However, there will always be some decisions that must be referred to or approved by a higher authority prior to making a final commitment.

The planning group should be kept as small as practical, yet include representatives from significant user groups, as well as the owners and managers of resources within the planned area. It is difficult and risky to not invite someone deliberately. But doing so will probably have less adverse effect on the final plan than having the planning session degenerate into a public meeting. If an owner decides his or her land will not be included in the planned area, merely redefine the area to be planned to exclude that area, if feasible.

To reduce costs and facilitate training, each CRM session can also be used as a training experience for a few people who are invited merely to observe the process in action and how such groups interact and formulate decisions collectively.

It is not unusual to find an extremist representing a particular faction within the planning group, nor are such participants common to any one segment of the group. As irritating and obnoxious as some extremist are, it helps the moderator and the planning group if they will recognize that it is the extremist who gives power to the moderator. Between the outer limits of nearly every conflict is a middle ground. This creates a situation ripe for compromise, which brings the moderator into power. Without extremes in conflicting viewpoints, needed changes might not occur.

Extremism, of course, incurs obligation. It is not enough to be against something without recognizing alternative solutions and legitimate needs. Searching for and accepting these solutions and needs is required of the extremists themselves. Few causes are so noble that compromise can be ignored.

As competence is acquired from experience, a CRM moderator can effectively cope with more diversified, complicated, and polarized situations and groups. It is a good idea, therefore, to begin the CRM process in a locality by selecting a reasonably uncomplicated situation that has a high probability of success for the first coordinated planning experience.

Scheduling is Essential

Scheduling planning sessions, field reviews, and plan updating can be difficult, especially with large planning groups. There must be a genuine desire among user groups to have input to the plan. There must also be a genuine desire among agencies to improve their effectiveness by making use of user-group input. Nevertheless, scheduling for coordinated planning is essential. Each agency, group, and individual has its own activities for which priorities are established; this must be understood by all participants. The development of each coordinated plan must dovetail with the activity schedule of each participant if at all possible. This requires a reasonable amount of give and take among participants.

During the planning process, the planning group should function intact from beginning to end as much as possible. This allows each member to listen and contribute to the development of the rationale upon which each decision is based, thereby motivating social change through personal volition. Assigning portions of the plan to committees, which briefly work independently on a particular question, is effective but should be used sparingly because it disrupts the continuity of the entire group.

The time required to complete a plan using the CRM process depends upon the size of the planning group and the complexity of the situation or issue. Because of the difficulty in scheduling planning sessions, it is advantageous to complete as much of the plan as possible during the first assembly of the group. Ideally, an entire plan might be completed during this first session while previous discussions are fresh in the minds of participants and the group's interest is high. This will also save time by eliminating reviews of preceding actions.

Two to four days of group planning, in addition to a field trip, is sufficient to complete the ordinary coordinated plan. One complex case history--576,000 acres in size, with some planning sessions attended by more than 40 representatives from 15 different interests--required two and a half days of concentrated attention in March, two days in April, and two days in July to formulate the plan.

Following the assembly of maps and other pertinent data, time should be devoted to a field trip review of the area or conflict involved by the planning group. This review should provide group members with an opportunity (a) to become familiar with the planned area or conflict, (b) to review inventory data, and (c) to observe major problems from the viewpoint of those who know the situation intimately. The experience will prove useful later during indoor planning sessions, where maps and other abstract data are used in developing the rationale upon which decisions are based.

When the planning group cannot travel in a single vehicle, a special effort by the group leader is needed to summarize and to motivate group discussion during each stop while the group is assembled so that everyone has the opportunity to listen, participate, and learn from the discussions. This field trip is where the planning group begins to work together as a team, asking questions; offering knowledge, experience, and suggestions; and listening. At this stage of planning also, the moderator must begin to motivate participation by members of the group. Additional field trips may be necessary during the planning process to review specific situations before decisions can be made on certain issues.

The first indoor planning session should be scheduled as soon after the field trip as possible, while the subject matter is fresh in participants' minds. The setting of each indoor planning session is important to the task of facilitating group action, and the larger the group, the more important this becomes. The room and lighting must be adequate to accommodate the planning group as well as others who have been invited to attend. Equipment for displaying visual aids should be placed near the head of the table, within clear view of the planning group. An effective way of seating the primary planning group--the decision-makers--is around a table so participants face one another. Avoid a classroom arrangement. Observers or trainee-group members can be seated away from the table.

The moderator should sit at the head of the table, where each planning group member can readily be seen. Eye-to-eye contact is important because facial expressions during discussion often signify agreement or disagreement. Also, the moderator, noting a desire on the part of a participant to contribute to the discussion, can ask, for example, "What is your thinking on this point, Jane?", thereby motivating participation and revealing viewpoints' that are essential to the CRM process.

Formats for Discussion

At the onset of the first indoor planning session, the moderator's primary task is to build upon the rapport achieved within the planning group during the field trip. This is done by continuing to motivate discussion among group members. Once discussion begins, however, the moderator's primary task is to keep the group discussion focused on a single issue until consensus is reached. This is essential strategy. Otherwise, certain individuals may try to manipulate the group to discuss the issue they perceive to be most important. All issues must be discussed in logical sequence.

A set of formats has been developed to help the moderator motivate yet maintain control over group discussions. These formats are designed to result in a thorough group discussion, item by item, while systematically formulating the coordinated plan. As the topic represented by a format is being discussed, the format should be displayed on a screen, using an overhead projector and transparency. This permits the moderator to pinpoint the particular item before the group for discussion. It also clarifies the relationship of one time to other items that have been or will be discussed. If visual display of the formats is not possible, copies of the format being discussed should be in the hands of participants.

At the beginning of the first planning session, the moderator must clarify that the group apparently has decided to work together to resolve issues. That is why participants are there and "now is the time to get down to business." Consequently, it is especially important that the group not begin by discussing a controversial issue. The group must learn to communicate, to compromise, and to reach consensus. The first issues considered should be ones that can be discussed and resolved easily.

Group discussion can start by asking, "What do you want to name your coordinated plan?" When a decision is made on the plan's name, it is recorded, along with the other items on the cover-sheet format. Simplistic as this approach may appear, it is important that members of the planning group develop a sense of involvement in the process. It is their plan. Starting with simple issues helps them to prepare for the give and take required to reach consensus on more difficult issues. Furthermore, realization that it is their plan increases the likelihood that they will genuinely contribute to its development and subsequently support its implementation.

Once the cover sheet is completed, the moderator promotes further participation by asking, "What objectives do you hope to achieve by the plan?" Stated objectives may at first appear contradictory if they represent polarized factions within the planning group. Nevertheless, each faction is privileged to state its objectives. Subsequent discussion helps to amend the stated objectives and to produce a consensus objective, which is recorded. These objectives are recorded in the order presented, with no inference as to order of importance or any assurance that they will be achieved.

Objectives may require considerable discussion and rewording before they are clearly stated and recorded in the plan. One technique that helps group members think through their objectives and state them clearly with help from the entire group is to have a blackboard on which each objective can be written, scrutinized, discussed, and revised as the group goes through the process of reaching consensus. Not, all items discussed during the planning process warrant this thorough examination, but the more controversial or complicated the issue, the more important this technique becomes.

A consensus on objectives does not necessarily mean that each individual agrees completely with every objective developed or that every objective will be fulfilled by the plan. The group merely agrees that each objective represents a base to start from. Some final objectives may be worded so they combine objectives offered by several factions, if the subjects are closely related, which reduces polarization.

Once the group has listed its objectives, which is an affirmative, forward-looking exercise with little real controversy involved, it is ready to tackle the potentially more controversial problems. It is important to note that, had the group's initial discussion been focused on perceived problems instead of objectives, a controversial, heated discussion could have developed because problems are the main basis of controversy. This could further polarize factions within the group, and the negative effects of intensified controversy might be difficult to overcome, all of which is contrary to the intent of the CRM process.

As with the list of objectives, major problems are listed without ascribing any degree of importance or priority. Before being recorded in the plan, they' too may require careful wording, scrutiny, discussion, and revision. This will reveal clearly to the group what the problems are perceived to be. Again, use of a blackboard is helpful.

Resource Management Systems

To avoid a practice-by-practice approach to planning, which can result in incomplete considerations, the CRM process uses the concept of resource management systems. Each system consists of a group of practices, measures, or items that should be considered for each resource use during the planning process. These formats were developed by a team of specialists who listed the items that must be considered to deal thoroughly with a subject. The formats serve as guidelines or checklists for thorough, systematic discussion while formulating the coordinated plan. They help the moderator to hold the planning group's attention on a single issue. If a group member persists in changing the subject of discussion to something he or she perceives to be more important, for example, the moderator can say, "Jack (orJane), right now we are discussing recreation on the planned area. We will get around to your particular point later as we work through the complete plan."

Nineteen such formats have been developed to date. As new formats are needed, they should be developed with the help of appropriate specialists. The resource management system formats now available include wildlife (general); big game and, where appropriate, feral horses; nongame wildlife; upland game birds and waterfowl; rare and endangered species; natural lake fisheries; reservoir and pond fisheries; stream fisheries; wildlife depredation; livestock grazing; tree management (general); forestry; non-irrigated cropland; irrigated cropland; irrigated and sub irrigated pasture; recreation; transportation systems; and watersheds. (A set of the formats can be obtained from Robert Baum.)

In addition to lists of consensus objectives and problems, coordinated plans consist of relevant resource management system formats on which decisions made by the planning group have been recorded. With each format, the moderator promotes group decision-making, item by item. For example, "What are you going to do about vacation cabins and home sites with respect to the recreational use of the area being planned?" The consensus decision is concisely recorded on the format. There is no need for lengthy written explanations because all decision-makers participated in developing the rationale upon which the decision is based; they know the reasons. This type of plan, in addition to being formulated by those involved with the planned area, is also designed for the use of this group--it is their plan. However, in some instances a brief background or historical treatise to supplement the coordinated plan decisions may be useful.

The planning group's decision can be (a) to do something, (b) to do nothing, (c) to state a need, or (d) to postpone a decision pending further study or consultation. A decision must be made, however, because the CRM process is a decision-making process, not a forecasting service. The moderator tries to get a decision to do something constructive. If the group bogs down on a controversial issue, the moderator should work for a decision to postpone the issue rather than to risk terminating the planning process because of the controversy. Discussion can then move on to other issues on which constructive decisions can be made, thereby completing as much of the plan as possible. Participants must recognize that CRM complies with existing laws, regulations, and land use plans. CRM groups make decisions without overriding the authority of those ultimately responsible for both private and public resources. Some items listed in a relevant resource-management-system format may not apply to the area or conflict being planned. A notation "not applicable" is made to signify that each item on the format has been considered by the planning group, and none was overlooked.

In most cases, decisions and needs are entered on formats in legible handwriting. Some prefer to reproduce these statements with typewritten copies. Handwritten formats have some advantages, however. After each planning session, an exact reproduction of decisions made during the day can be handed to each planning group participant. This can be important in gaining confidence within polarized groups. Moreover, the cost and delay of typing is eliminated. If corrections or additions are needed during the formulation of the handwritten copy, they can easily be made by ruling out or adding words.

A succinct, handwritten or typed resource management format may appear unprofessional, but it is effective and inexpensive. The plan itself is not the end product, nor is its quality affected by appearance. A resource management plan should be measured by its effectiveness in achieving conflict resolution, accomplishments on the land, and social change, always with trust and mutual respect among members of the planning group.

Signing off

After all formats relevant to the area or conflict in question have been completed, members of the planning group are asked to sign a signature sheet acknowledging their participation and concurrence. This signature sheet is not intended to be a legal document; it is more like a gentlemen's agreement, which is in keeping with the informality of the CRM process.

Selecting Priorities

Following completion of the plan, there remains the task of deciding which projects have priority. The number of projects related to a thorough resource management plan often appears formidable. To help the planning group evaluate all projects it decided were needed, the moderator should list all planned projects, grouping them according to resource management systems. Using this to-do list, the planning group can identify and select which projects need to be done first during the next 'year or less, determine who will do each project, and if desirable, estimate costs and schedule completion dates. Selecting priority projects is essential for orderly and realistic allocation of time and money; both private and public, given other budgetary considerations.

Project planning, which is done for priority projects after they are selected, consists of a set of specifications for constructing or installing the project or measure according to required standards. The entire CRM planning group need not be involved in this detail. Project planning should be done by those who will actually use the project or measure.

Periodic Reviews

The initial coordinated resource management plan should not be construed as a precise document when implementation begins because such plans are based on momentary knowledge and viewpoints. Implementation usually reveals additional needs and necessary adjustments. Moreover, stagnation in the implementation of a coordinated plan is almost invariably caused by a lack of follow-through; coordinated plans do not differ from other types of resource management plans in this respect. Consequently, periodic reviews of a coordinated plan are essential. Reviews should be made by the original planning group if possible and at least once a year. Conservation districts are an appropriate group to initiate review and encourage follow-through with plan implementation.

The objective of a review is not to rewrite the initial plan. It is to document progress by (a) listing accomplishments collectively made by the various segments of the planning group since the plan was formulated or since the last review, (b) listing new problems and needs that have become apparent, and (c) selecting additional priority projects for completion during the next year or less. A CRM review preferably involves a field trip to observe accomplishments as well as new problems and needs.

During the interim between group reviews, decisions to change significantly the initial plan should not be made unilaterally by any segment of the planning group. Group involvement is as important in making major changes as it is during the initial planning process. The original moderator need not be the review chairman; however, this is desirable for the first few reviews when needed amendments are likely to be revealed and require group discussion.

In Summary

The CRM process can be conducted in various ways, but certain basic elements must be observed. Resource owners, managers, and users must work together as a team, from beginning to end, to develop the rationale upon which resource management decisions are based. Coordination must be achieved between the major resources and uses made of them and among the various ownerships within the planned area or associated with resolving a specific conflict. Resource owners and managers must make the final decisions after listening to the viewpoints, experiences, and options of others. Formulating resource management plans within an agency or group for the purpose of subsequently submitting the plans to others for review and comment-the referral system--certainly does not qualify as CRM.

Based on practical experience and thought at the field level by a variety of competent practitioners and professionals, the chronologic procedure and format outlined herein has helped to overcome a number of the common obstacles associated with resource management planning. The face-to-face exchange of viewpoints on objectives, problems, and alternatives is an ameliorating force that allows acceptable decisions to be made under polarized situations. This form of exchange also makes use of multiple judgments and expertise in different disciplines or subjects. This greatly adds to the soundness of decisions made during the planning process and to the consideration of second- and third-order consequences that take place following activity on the land.

Furthermore, the involvement of participants from beginning to end helps them to develop a sense of responsibility and confidence in the outcome; the plan becomes their plan, which increases the likelihood that they will help implement it. They increase their awareness of resource relationships and interactions and become more knowledgeable because they listen to the viewpoints, experiences, goals, and options of others. All of this helps them to amend the viewpoint that they had at .the beginning, which is part of the social changes that are needed. Social changes achieved in this manner are usually long-lasting and even self-expanding.

References Cited

Anderson, E. William. 1977. *Planning the use and management of renewable resources.* Rangeman's J. 4(4&5): 99-102,144-147.

Anderson, E. William. 1980. *Social change--a necessary component of resource planning.* Rangelands 2(4): 156-157.

Anderson, E. William, and Robert C. Baum. 1987. *Coordinated resource management planning. Does it work?* Journal of Soil and Water Conservation 42(3) 161166.

Nowak, Pele, and Max Schnepf. *1987. Implementation of the conservation provisions in the* 1985 *farm bill: A survey of county-level. U.S. Department of Agriculture agency personnel.* Journal of Soil and Water Conservation 42(4): 85-290.

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