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Communication between the health aide coordinator and staff at KANA was difficult because of the activity at the KANA clinic related to the oil spill. At times the health aide could not make phone contact with her supervisors, because the phones were busy, or medical staff at KANA were unavailable. Medical evacuations with the Coast Guard were slow, so private charters were used in some cases.

Changes in Personal Experience

People described not only a loss of control of the cleanup effort and the community, but a loss of control of their personal lives. "They wanted to keep control, they did not want you to get organized or anybody to get organized... I think they wanted to keep control," one person said about Exxon and VECO.

Others feel that their views of oil companies and the legislature have changed. They described an increased sense of mistrust towards any outside agencies and sometimes towards their friends and neighbors. One person characterized the realization that the oil was going to impact the island as a state of "emotional shock."

"I fish therefore I am," was the way a resident described her feelings about her subsistence lifestyle. A feeling in the past of security with the environment was mentioned by another resident. She felt that security was taken away with the threat of contaminated fish and wildlife such as deer and fox. Her perception of security and independence was damaged by the lack of answers about food supplies and contamination.

THE CHIGNIK BAY AREA: REGIONAL OVERVIEW

The three communities discussed below, Chignik Bay, Chignik Lagoon, and Chignik Lake, are located in close proximity to one another on the middle of the Alaska Peninsula. United in both their isolation and their jurisdiction within the Bristol Bay Borough, these three communities remain distinct from one another. The city of Chignik Bay is the economic and, in some ways, political center of all of the "Chigniks." The community has two large fish processing plants and a small boat harbor that make it the hub of the region's commercial fisheries. Although the VPSO has been formally appointed to serve only the city itself, because he is the only VPSO in the entire region, he is often asked by the state troopers to assist in other communities. During the spill and cleanup period the city also served as the nerve center for the regional response. Ironically, this response was largely spearheaded by the VPSO.

Like Chignik Bay, the village of Chignik Lagoon is composed of a highly mixed ethnic population whose inhabitants are of Native and non-Native ancestry. Here, as in Chignik Bay, the population fluctuates from winter to spring with the advent of the fishing season. However, many of its inhabitants seem less involved in community affairs and most of the residents focus their attention and energies on their families and less on civic affairs. Chignik Lagoon residents often described themselves as "lacking a sense of community." Within recent years a number of the year-round residents have moved to Kodiak, Anchorage, and Seattle for their winter residence. There is a fish processing plant located across the Lagoon from the village.

The village of Chignik Lake, unlike its two neighboring villages, is situated inland on Chignik Lake. While its residents fish in the Lagoon and live on one side of it during the fishing season, their permanent village is more remotely located than the two communities on the ocean. Their ethnic composition is different as well. The majority of the villagers are Natives, often with a higher percentage of Native ancestry than the residents in the other two communities. More heavily dependent on subsistence activities, they hunt bear, moose, and caribou to augment their marine diet. Per capita, residents' income is considerably lower than the residents of Chignik Bay and Chignik Lagoon. While the residents of the latter communities consider themselves commercial fishermen, the villagers in Chignik Lake are considered by their neighbors as people who fish commercially but live and depend more on traditional activities for subsistence. Moreover, the community population is more stable and while its population relocates to the Lagoon for the fishing season, it has a much higher percentage of year-round residents than the other communities.

All three communities were exposed to oil in the same way. By-and-large the area was not heavily oiled. While some remote beaches were oiled, it was mostly in the form of tar balls and oil sheen. The effect on local fisheries was the same for all three communities. The policy of zero tolerance closed all the fisheries but that of the Lagoon.

Their exposure to the cleanup was also similar except Chignik Lagoon suffered from having to contend with all the boats in the region fishing in the Lagoon, which became the stage for much competition and tension.

Finally, while it can also be said that all three communities shared similar psychosocial impact from the spill and cleanup effort, it must be borne in mind that culture remains a significant consideration for understanding the type and degree of this impact. As will be discussed below, this consideration is responsible in part for a differential psychosocial impact.

CORRECTION

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The Village of Chignik Bay

Chignik Bay is located in Anchorage Bay on the Alaska Peninsula 535 air miles from Anchorage. It is the oldest continuously occupied community in the region. The community is accessible by air from Kodiak and King Salmon as well as by boat. Incorporated as a second class city, the community is governed by a city council and a Native village council. The majority of its revenues are derived from the fish tax. The residents of the community are mostly of a mixed background of Aleut, Russian, and Scandinavian heritage. The population is approximately 128 people, although the population fluctuates greatly between winter and summer and can reach a thousand in the summer. The economy of Chignik is based on a mixture of cash and subsistence. The city is situated in one of the richest and most profitable salmon districts in the world. There are two fish processing plants in the community and one store.

Response Effort

For a long time after the spill occurred, most residents believed it was posed no threat to their community. However, once the spill reached Gore Point people became very concerned about the possibility of it reaching their community. Consequently, the VPSO began listening to the Kodiak MAC meetings over the radio and broadcasting them over the VHF to the residents. He also organized public meetings and raised the issue with the city council. In concert with these activities, he made phone calls to Homer, Valdez, Port Graham, and Kodiak. Moreover, he invited people from all five of the regional communities to public meetings in order to organize a regional response. In this way, the city of Chignik and the VPSO became the central organizing focus of the response effort for the entire region. The communities solicited the knowledge of local fishermen in planning what areas they should protect.

When the VPSO was absolutely certain the oil was heading for the community, he requested the city council to declare an emergency and enact an emergency ordinance that would establish the mayor, the vice-mayor, and the fire chief as the emergency coordinator for the city. The measure was adopted and the VPSO (who is also the fire chief and for a short time during this period was also the mayor) became the emergency coordinator. More public meetings were held in conjunction with the Native Association, the local Native council and ~~Emma~~. hired twelve boats to patrol the waters and scout for the presence of oil. also hired ~~the~~ workers to sew material for the booms. The city acquired a fax machine that allowed ~~them~~ closer contact with other communities, and DEC helped them establish a command center.

Two months after the spill occurred, VECO came in and assumed control of the response effort. According to the emergency coordinator they began "taking over." As one city official stated, "Once VECO took charge of the cleanup, we were sidelined in terms of

control and input." This same official asserted that "having in charge of the cleanup was like putting a fox in charge of the chicken coop." Yet another individual stated, "we had a major distrust of their [s] people." A former city council member said: "We should have handled it [the cleanup] ourselves rather than let outsiders handle it . . . we should have kept more control. should have been made to pay the bill but let the communities do the work."

Many people felt VECO attempted to control the flow of critical information into the community. For instance, when a Fish and Game boat arrived with test samples, VECO allegedly tried to keep it quiet and prevent local people from viewing the samples. The VPSO stated he would not stand for this kind of "interference" and "suppression" of information to the public. The community had a difficult time obtaining information from the rest of the state because of its remoteness. In order to compensate for this, the city hired part-time workers to write and distribute bulletins to update the population. Despite these attempts to provide accurate information, the VPSO stated that there was an atmosphere of distrust and animosity throughout the community, "Nobody would believe anybody, what anybody was saying and part of it was I think the mind game--Exxon and VECO would say that's not our oil . . . first they'd say there was no oil and then we proved it, bring the dead birds or bring the oil up to them and so yeah it is oil, then they'd say its not their oil . . ." He also addressed this issue of pervasive mistrust in a public speech he made in which he said,

"I've been in fire services since '75 and I have never, ever ran across a situation that generates so much distrust between all players, never seen it like that and that's going to be around awhile and I also said because we do not have community disaster plans in much of the area, because we did not have the rules established we were told by the spiller what they were going to do . . . we weren't in charge, we weren't in the driver's seat . . . and I said unless we make some changes . . . and prepare for the future it is going to happen again."

There was also extreme dissatisfaction over the number of boats hired, according to the emergency coordinator. For six weeks they had a dozen boats on line. When these began to discover oil in the northern fishing district of the region, laid off all of them because Kodiak Island was hard hit and they wanted to send some of their boom over there. Two weeks after they sent the boats home, the oil began arriving in the Chignik fishing district. Exxon then hired approximately four boats which were the only boats they had on line the rest of the summer.

Although many city officials were quite critical of and VECO, they praised a number of outside groups that did assist them during the cleanup period. Included in these groups are the Fish and Wildlife Service, The Bristol Bay Coastal Resource Services, the Department of Community and Regional Affairs, and the Bristol Bay Times.

Local Government

Although the city of Chignik was not as hard hit by the spill as many other communities, the spill and the cleanup did create disruptions in the operations of city government. Excessive demands were made on the city offices. The city's infrastructure was too small in scope and personnel to be able to deal adequately with the plethora of issues and demands that arose as a result of the spill; nevertheless, it would appear the city made an exceptional effort to respond to the demands made upon it. One of the greatest difficulties with which it had to deal was with the lack of available and up-to-date information. The region was so remotely located from the other regions affected by the spill that it required extraordinary efforts to maintain daily contact. Not only was there no radio station or other media to provide information, but it is also a community whose remote location and severe weather often makes it difficult to reach by plane or boat.

According to the former city clerk, at the time, the city offices were overwhelmed by the presence of so many people who demanded information or the use of their phones and fax machine. Furthermore, because it was often difficult to log the use of such equipment they have never been able to seek adequate reimbursement for the additional expense of the phones. These communication costs alone were considerable for a small municipality.

The city suffered other financial losses as well. First, being so dependent on commercial fishing, they lost a sizeable portion of their regional economy when the fisheries were closed down. 90% of their revenue is derived from the fish tax and, because the poundage dropped dramatically, the city lost a large share of their annual revenues. Furthermore, it remains to be seen how potential damage from the spill could reduce the revenues in the coming years. At the time of the crisis period the city had only a city clerk and a part-time assistant. These two people could not perform both their regular job tasks and meet the demands of the spill. Consequently, they were unable to apply for several grants they had intended to apply for. Moreover, all of their city personnel including the VPSO/emergency coordinator and others worked hundreds of hours of unlogged overtime for which they cannot now be compensated.

Another indication of the disruption is the massive turn over in municipal positions within the last year during which time, there have been five mayors, 17 city council members (on a seven member council) and four city clerks. The only key person who has remained in his position has been the VPSO. The degree to which the spill was directly or indirectly responsible for this turn-over will be addressed in the section below on changes in the

community because these changes are inextricably tied to community relations beyond municipal politics. However, the turmoil in the local government, regardless of its primary causes, has created deep-seated factionalism. The Native Village Council has also had considerable factionalism within the last year. There is now only one member of the village council. The former acting president, allegedly self-appointed, resigned in a dispute over the winter cleanup program. The reasons for this turnover on the Native council remain unclear. For whatever reasons, the council has been relatively inactive for several years.

Changes in Community

The biggest changes in the community stem from the factionalism mentioned above, and it is difficult to attribute all of these changes directly to the effects of the spill because other community issues are embedded in the disputes. Much of the factionalism centered around the actions of a local church group which has been very active in the community. Although its members remain a minority, they have been successful until lately in having their members elected to the city council and the mayor's office. One of the disputes arose in the summer of 1989 when the city clerk, responding to the requests of a number of citizens for more news and information about the spill, made an initiative to have the city subsidize a transponder in order to pick up a public radio station in Kodiak. Members of this church group objected to the move because they claimed that the station sometimes broadcast rock and roll music which they found offensive. Moreover, the church group was in the process of trying to raise funds to purchase a transponder in order to broadcast a gospel station out of Homer. Eventually, the city clerk prevailed. She and her supporters raised over one hundred signatures in support of the subsidy. However, she stated that because of this struggle and the difficulty she had in performing her job in the face of the demands of the spill, she resigned from her office.

This church group was also involved in other controversies in the community during the past year. For instance, at one point they objected to the school having its gym open on Friday nights because that is when they hold church services, and they didn't want the children of the community to be distracted by other activities. Many community members objected to this view and the church group eventually was defeated. In an even more controversial move, the church group demanded that two books be removed from the school library because they found them morally objectionable. Most parents and members of the school advisory board as well as the principal objected to this censorship. The principal offered to compromise and insure the parents in the church group that the books would be signed out of the library only on the basis of parental permission. The church group maintained their demand and eventually one family withdrew its children from the school because of the dispute. Even though the school principal and the regional school office prevailed, the issue caused considerable discord and a few advisory members resigned because they felt "harassed" by some of the parents. These disputes, though centered around one minority group, are indicative of the highly charged and factionalized atmosphere in the community.

There seem to be many disputes on civic and private levels that have caused tension in the community at large.

There are other sources of tension in the community that may have contributed to the disruption of municipal government. The population of the community fluctuates greatly during the fishing season. Both permanent year round residents and summer residents seem to distinguish themselves from one another. Many permanent residents claim that the seasonal residents are not willing to contribute to the well-being of the community but nevertheless blame the permanent residents for "everything that goes wrong."

Way of Life

The policy of zero tolerance and the closing of all the fisheries had an enormous impact on this commercial fishing community. The state only allowed fishing in the protected waters of Chignik Lagoon. This exception seems to have disturbed most of the fishermen. To begin with, it seems to be the prevailing consensus that the zero tolerance policy was far too stringent. Many fishermen think the state over-reacted because most of the region's waters were not heavily oiled, although oil sheen and tar balls were found in various areas. However, since the waters were closed, the fishermen think all of the waters should have been closed. Allowing people to fish in Chignik Lagoon prevented the fishermen from qualifying for the clearly defined reimbursement that other fishermen qualified for.

In addition to the disruption of normal fishing activities, the two fish processing plants in the community were affected which further upset the economic balance of the community. Both plants had to cut back their staff levels, and at least one plant switched from salmon to cod processing. The closing of all the waters but the Lagoon had serious consequences for the fish processing plants. One plant reported that 70% of its fishermen normally fished outside the Lagoon. This plant's production fell about 30% below their normal production rate. Although both plants employ few residents of the community, the loss of income and the drop in production seriously affected the regional economy. Moreover, as one plant manager observed, the closing down of the fisheries and the overly competitive activity in the lagoon "placed the fishermen in a bad mood and made it difficult to deal with them." Another plant manager reported that during the summer of 1989, the plant lost about five boats from which they usually purchase fish because those boats had been chartered to VECO.

Mental Health

The Bristol Bay Area Native Association received a \$55,000 grant to provide enhanced services in the Chignik Area in response to the spill from the state Department of Health and Social Services. However, this funding was not received until January 1990 and the

mental health counselor in Chignik was not hired until some time after that. The major source of information on the incidence of domestic violence, child abuse, depression, and suicide rates was the VPSO. For crime in general, the greatest increase he observed was in theft. While he has observed an increase in alcohol abuse he had a marked decrease in DWI arrests within the last year compared to previous years. Furthermore, he has had no reported cases of sexual abuse during the last year and a half. However, he has had the first reported incidence of a rape in six and one half years, but that incident involved two non-residents working at one of the fish processing plants. In six and one half years he has never had an official suicide or attempted suicide case in the region.

Medical

According to the newly appointed physician's assistant and the Bristol Bay Area Native Association, the spill did not result in an increase in demand on the medical clinic even though it was anticipated that it might do so.

Changes in Personal Experience

While Chignik Bay and the other Chignik communities were not affected by the spill to the same degree as other communities, people did undergo serious changes in lifescape. Many of the informants became very skeptical about "so-called experts." People questioned the reliability of scientists on two issues: 1) the rationale for a zero tolerance policy being imposed in their fishing districts and 2) the indecisiveness of most "experts" on the potential contamination of foodstuff in the environment. Some people seem to have lost their faith in scientific analysis; others seem to have lost their trust in the motives of some scientists.

People in all the communities were upset and anxious over the uncertainty of their future. The possible long term effects of the spill on the environment, particularly on marine resources, was a source of considerable worry. In addition people were extremely frustrated that there was little they could do to insure the continuation of their way of life and livelihood. In this regard, many people thought that they had lost control over their fate and the fate of their environment.

The Village of Chignik Lagoon

Located approximately six miles west of the city of Chignik, Chignik Lagoon is an unincorporated village and is governed by a traditional council. The community is accessible by air and boat. The village participates in the state revenue sharing program. The ethnic composition of the community is mixed. Most residents have a cultural heritage which includes Aleut, Scandinavian, and Russian ancestry. The population is listed at around 40 people, but during the summer fishing season it increases at least three-fold. The mainstay of the economy is fishing. There is an airstrip in the community and across the lagoon there is a cannery and a store. In a sense, there are two Chignik Lagoons: One is known as the "flat side" and the other as the "cannery side." This report addresses itself to the "flat side." The cannery side is populated largely by summer residents from the nearby community of Chignik Lake.

Response Effort

All of the cleanup operations were coordinated from Chignik Bay. The village itself was not officially involved directly in the cleanup operations. Few community members and very few boats were hired by VECO or Exxon. Two members of the community used their personal fax machines to maintain communication with the nerve center of the response effort in the region in Chignik Bay and with other communities in the state affected by the spill. Information that they received was posted in the Lagoon to update the village residents. The villagers did experience difficulty in attending the public meetings held by VECO and Exxon often without prior public notice in Chignik Bay. Chignik Lagoon residents complained that without advance warning they were unable to make it over to Chignik Bay in time to hear and meet with these corporate representatives. Some people thought that VECO and Exxon might have done this deliberately. Others observed that spring is a busy time of the year when most fishermen are preparing for the upcoming fishing season and if they were not near a radio they might not hear of the meetings even if announced in advance.

Local Government

Since the governmental response for the spill was conducted in Chignik Bay for all the Chignik communities, the spill and cleanup had little direct impact on the local government. At this point in time the local government exists almost in name only since there are only two council members. The village has always had a difficult time getting residents to partake in local government. One reason for this is that most of its residents only live in the community during the summer, living elsewhere in Alaska or the lower forty-eight the rest of the year. According to year-round residents, many of these people do not think of the village as their home. Even if they do, they want nothing to do with the local

government for a variety of reasons. During the hectic fishing season, these summer residents see themselves as having little time for civic responsibilities, or they little or no interest in village affairs. Many year round residents apparently also lack interest in participating in local affairs. One resident stated regarding the village council, "there's a lack of interest . . . nobody wants to take the responsibility." Other villagers stated that most residents were interested only in their immediate families and had no interest in the greater public good. One former council person stated that the residents of the community "are more independent than even most Alaskans and tend to keep to themselves."

Within the last year the situation has deteriorated because of a dispute over the management of the community Safewater Program. Controversy over the management and funding of the program resulted in the entire village council resigning because of their inability to resolve the dispute. While the central issues causing this political fall-out and factionalism are not directly related to the spill, some say that the spill may in part be responsible because the heightened tension and stress in the community caused by the spill may have exacerbated community relations.

Changes in Community and Way of Life

Normally, only the residents of the Lagoon fish in the lagoon but sometimes there may be up to 25 boats there to fish during salmon season. Because the waters outside the Lagoon were closed to everyone, almost 100 boats fished the Lagoon during the summer. Boat crews had to line up and wait their turn to fish. Some boats did fairly well, but others did poorly. One person stated that, "there were slim pickings in the little Lagoon with all those boats in it." According to all reports, tension between the boat crews was very marked and there was a highly charged sense of competition that is not normally felt in fishing seasons. Most residents reported high levels of animosity erupting from time to time and constant bickering and quarrelling over the marine radio. Other residents say that because of the extreme stress, alcohol consumption increased and there were more fights and bitter exchanges than in previous summers.

Despite the fact that the waters were not heavily oiled, there was considerable anxiety over the potential impact of the oil spill on the fisheries. It was decided to close the fisheries. Many people are reported to have thought that this was unfair. Once they were closed however most thought the Lagoon should be closed as well so that fishermen could more easily qualify for reimbursement from Exxon. There remains some tension because the predictions for fishing in the Lagoon this year are very poor.

As a whole, the community is a relatively affluent community because of the abundance of salmon in its waters. While some boat owners reportedly did poorly, many others did well and some even fished to nearly normal levels. Crew members seem to have been more adversely affected, since to start with their incomes are much lower than those of most boat

owners. Some informants stated they thought the spill had little negative impact, while others stated that there was some major impact, but not severe enough to prevent many from taking long winter vacations. In fact, more than a few residents commented that some villagers seemed to have taken longer vacations than usual. The greatest concern expressed in most villagers was not for the impact of last summer, but for the potential long-term negative impact. The uncertainty of the future is what seems to disturb most people.

Mental and Medical Health

Both the community health aide and the community health representative reported that they have observed no adverse health effects of any kind as a result of the spill. The community health representative's position did not exist at the time of the spill, but the community health aide stated that there were no increased demands on the clinic nor did she perceive any additional stress on families because of the spill. According to these sources, while there was some increase in alcohol abuse, it was not significant. There was no increase in domestic violence or sexual abuse that they were aware of.

The Village of Chignik Lake

Located on the Alaska Peninsula approximately five miles inland from Chignik Lagoon, this community is only accessible by airplane and skiff when the tides are right. Chignik Lake is an unincorporated village governed by a traditional Village Council. The village participates in the state revenue sharing program. The ethnic composition of the village is largely Aleut and has a higher Native population than the neighboring communities of Chignik Bay and Chignik Lagoon. The year-round population is approximately 170 people. The village has a mixed cash-subsistence economy. While the mainstay of their economy is fishing they also depend to a greater degree than their neighboring communities on other subsistence activities which include caribou and moose hunting and berry gathering. There is a store and an airstrip located in the village. Most of the villagers relocate to the "cannery side" of Chignik Lagoon during the summer months.

Response Effort

As discussed above, the nerve center for the response efforts was located in the city of Chignik Bay. The Chignik Lake Village Council was not directly involved in the response. As in the village of Chignik Lagoon, some community members worked on the cleanup crews. No boats from the community were leased by VECO. Villagers had the same complaints as those in Chignik Lagoon about the VECO and Exxon meetings being held "at the last minute without sufficient notice" for villagers to attend. Advance warning was especially critical for the residents of this community since the tides dictate when people can travel. There were other complaints about VECO. For instance, villagers reported that, on one occasion, a VECO representative at a public meeting said he wanted to take a short break before finishing the meeting and then failed to return. As a result, the villagers became suspicious of VECO and began to distrust them.

Change in Community and Way of Life

The village of Chignik Lake seems to have been more adversely affected by the spill than its two neighboring communities. Many of the fishermen did not own large boats that could be leased. The average per capita income of the community is much less than in Chignik Bay and Chignik Lagoon and the villagers could not afford a substantial drop in income from year to year. Some men stated that as crew members on boats, they were not paid and were suing the captains. They also claimed a lot of their boats were "hurting", that they did not catch many fish last year. Some people complained about having to fish in the Lagoon because it was like "having to fish in a bath tub." The fishermen also complained that the six-pack course held this past spring was held too close to the Togiak fishing season opening and they could not enroll in the course.

According to those interviewed, many of the villagers were afraid for the future outlook. The villagers were concerned about how the spill would affect their families and fishing in the coming years.

The loss of income from a normal fishing season appears to have created economic hardships for some. Here is how one spokesperson described the situation;

A lot of people had hard time all winter long because they never had no money to live on. There was a shortage of money . . . so I am sure they had to do without . . . you know, some of them had to do without certain things and there's not too many jobs in the winter time in a village like this to employ everyone and pretty much everyone depends on fishing for their livelihood, as their income for the entire year.

One women stated that many of the people are also very afraid of eating foods they normally eat like clams and halibut. People seem disturbed because no reliable health authority can give them assurance as to what foods are safe or dangerous to consume. The fears about contamination of foodstuffs in the environment strike at the heart of their concerns about subsistence. One person stated that they have "always lived off the land on salmon and caribou." The over-riding concern seems to be that this way of life will be undermined by the effects of the spill and that the foods they enjoy eating the most, as well as their cultural traditions that are enmeshed in subsistence activities, will be lost forever.

A year after the spill, just before the opening of the fishing season, people were apparently still preoccupied with the impact of the spill on their lives. One individual described the situation like this: "When you get together that is the main topic, is the oil spill, what is going to happen to us, what is going to happen to our fish, what is going to happen to our livelihood. It's always the main concern, the main topic."

It is difficult to know the impact of the spill on crime rates in the community since there is no VPSO in the village. However, one of the community health representatives stated that there has been an increase in alcohol-related incidents and fees, there should be a VPSO in residence in the village. One of the community health aides was injured in an incident with a drunk patient in the late spring of 1990.

Mental and Medical Health

One health official stated that, since the spill, there have been more problems with alcohol in the community. According to this person some of the people with this problem are not

just those who had this problem before the spill. The same individual stated that there has been no apparent increase or even usage of drugs in the community. (She doubts many villagers could even afford drugs.) Nor has this person witnessed any increase in domestic violence or sexual abuse. However, this source did state that four people from the community were being treated for clinical depression. It was unclear if their depression was directly related to the spill.

According to this official, many people felt helpless last summer and didn't know where to turn:

It was literally out of our hands . . . all summer long there was anxiety. You would stay in line for five hours at a time before you'd get your turn to make one haul and the luck of maybe getting one fish. Talk about depression! And some of the captains were really depressed. They didn't think this was going to happen.

This person went on to talk about the implications of the spill for the future:

The impact of the spill, like anything, it takes a while for a person to really absorb anything and it doesn't really hit them until maybe, for some people, maybe a month later. This is not something totally new, it's terrible. I mean, you can't feel an impact after something really happens. Just like right now, Oh God, it's a problem. It is something that has to be absorbed and then comes to the surface. I think fishermen are feeling it a lot more, even the housewives . . . they are feeling all the tension, you have got all kinds of payments to make and it just comes out in another way. It's hard.

THE KENAI PENINSULA: REGIONAL OVERVIEW

All the communities discussed in the Kenai Peninsula Region are part of the Kenai Peninsula Borough. The Kenai Peninsula Borough is located south of Anchorage, Alaska's population center. The Borough traverses both sides of the Cook Inlet from the southern tip of the Kenai Peninsula north to where the Cook Inlet splits into the Knik and Turnagain Arms. North of the Peninsula and Turnagain Arm lie the Chugach Mountains. The Kenai Mountains run north and south across the Peninsula in contrast to the lowlands lying to their west. Across the Inlet, the land is dominated by the Chigmit Mountains, a part of the Alaska Range.

The Kenai Peninsula Borough was incorporated January 1, 1964. The Borough has an elected mayor and provides residents with the following areawide services: Assessment and Collection, Education, Planning and Zoning, and Solid Waste Disposal. Non-areawide services include two hospitals, two fire departments, and a sports center. There are five first class or home rule cities in the Borough and one second class city. In addition, there are a number of unincorporated settlements ranging in size from under 30 to over 200 in population.

The Kenai Peninsula encompasses 99% of the Borough's population and most of the development, according to the Borough's Resource Development Office. The only population centers on the West side of the Cook Inlet are the village of Tyonek and the oil and gas facilities at Drift River, Trading Bay, and Granite Point. However, according to the Borough's Situation and Prospects report, only 0.7% of the population of the Borough resided in these areas in 1986. The bulk of the Borough's residents, 63%, live in the Central Peninsula Region the economic centers of which are communities of Soldotna, lying 11 miles apart. In 1986, 27,338 persons lived in the vicinity of these communities. Homer and Seldovia are the centers of the Southern Peninsula Region. In 1986 they contained 11,541, or 26%, of the Borough's population. The Borough's population center in the Borough, and the only area not focussed on the Cook Inlet, is the Eastern Region, which includes Seward. This region had a population of 4,426 in 1986, constituting 10% of the Borough's population.

The economy of the Central Peninsula region, and the Borough as a whole, is dominated by the oil and gas industry, the nucleus of which is in the North Kenai area. Historically, the industry's real property values account for more than 50% of the Borough's assessed values, and the addition of all properties of those businesses and services directly influenced by the industry would combine to represent upwards of 80% percent of total property values.

The Southern Peninsula region is dominated by commercial fishing, fish processing, and tourism. The economy of the Eastern Peninsula, which is dominated by Seward, is the most

diverse in the Borough, consisting of fish and timber processing, tourism, and a number of local, state, and federal agencies.

Involvement of the Borough in Oil Spill Response

The first Borough department involved in oil spill response was the Office of Emergency Management (OEM). The coordinator of this office was in Seward when the National Park Service representative convened with various municipal department heads to plan a course of action. The Borough's course of action was set in large part by the mayor of the borough who, according to one department head, began to think in economic terms and public policy terms when everyone else was thinking of the spill in environmental terms alone. As a result of these concerns, one of the first involvements of the Borough in oil spill-related tasks included the sponsorship of a short-term, early assessment of the economic impacts from the oil spill by a private contractor under the auspices of the quasi-governmental Economic Development District (EDD). The report was designed to be a preliminary assessment and was published in May 1989, two months after the spill. Many of the findings in this report were confirmed by IAI's research almost a year later. For example, the EDD's report states that the high wages paid to oil spill cleanup workers must be matched by local businesses if they are to maintain the same level of production. Otherwise, "prices must increase to cover the additional labor expense (EDD 1989:15)." Although interviews for this segment of the study did not focus on private businesses, it was clear from the experience of many public agencies that lack of committed personnel was a serious problem. People began to expect to earn at least what VECO employees earned. It appears that these expectations about wage level will persist whether or not cleanup operations continue and that economic ramifications will be incurred.

Another interesting finding of the EDD is that, while short-term increases in sales and tourism-related businesses occurred, the long-term outlook on Kenai Peninsula is bleak. The report hypothesized that news of contamination of prime fishing spots would become common knowledge among the regular Anchorage visitors who patronize the Peninsula's attractions discouraging them from coming. At least during the summer following the oil spill, this was hardly the case. In fact, Soldotna's campgrounds were more crowded than usual as the Kenai River was teeming with salmon. It will be of interest to know if this trend will continue in following years.

In regard to impacts to municipal governments, IAI's findings are in close agreement with those of the EDD. Essentially, department heads and their staff were derailed from their usual tasks to work on oil spill-related activities. Consequently, projects, grants, and everyday municipal office work was left undone. Often, employees left their permanent jobs to take the higher-paying cleanup jobs with VECO which increased the workload of those employees that remained.

In response to the realization that the spill and spill-related work was clogging the workload of many of the departments in the Borough (or had the potential to do so), a position of Oil Spill Liaison was created. This "effectively allowed everybody to clean off their desks as much as possible, [and put the spill-related work on] only one desk." The liaison position was also created to deal with the likelihood of regulatory and statutory fallout associated with the spill -- part of the job of the liaison person was to track potential consequences along these lines. According to the liaison person:

The position was originally to be for six months. By that time we thought that the legislation and the spill would be managed to the point that we could get back . . . [to] . . . a normal state of affairs. We found that the *Valdez* oil spill has not only changed the way Alaskans look at their environment, development, and interrelationship between industries, the governments, and the community, but the whole nation is looking at Alaska differently, and they are effecting policies toward Alaska with the best of intentions, but with some pretty significant fallout in terms of what our future development might be.

The Borough acted as a pass-through entity for funding from Exxon to the local governments within the Borough. For example, when Seward encountered spill related expenses, bills for those expenses were submitted to the Borough which paid them out of a kitty Exxon had established with the Borough. In this way, the individual communities within the Borough did not have to deal with directly with Exxon or VECO for reimbursement (after the Borough system was established).

The Borough's OEM was also involved in both the Seward and Homer MAC groups. Originally the Borough wanted only one MAC, but conceded to facilitate the establishment of a second in Homer at local insistence. Plans for the summer of 1990 were to have a single MAC for the Borough, and the Borough was contracted by the state to run a Spring 1990 response program. During the spill response in 1989, there was not a great deal of coordination between the Seward and Homer MACs. In the overall spill response planning, the borough was split into two zones, the Seward zone and the Homer zone, and each of those zones had representatives that reported back to Valdez. A phone conference with DEC in Valdez was held every two days, but the communication was mainly Seward-Valdez and Homer-Valdez, and very little Seward-Homer. This was seen in the Borough as hampering effective coordination to a certain degree.

Unlike the constituent communities, the Borough did not submit billings for overtime worked by its personnel. Additional hours worked by salaried persons, and vacations

canceled, were absorbed by those individuals. The departments of emergency management, finance, the mayors office, and legal services were effected the most within the Borough in terms of increased work load. The personnel office was also effected through the management of union personnel who had to be shifted in work locations and shift times, the slotting of new persons into temporary organizational structures, and so on. They were also involved in issues of insurance and risk management.

In terms of lasting effects of the spill on the organization of the Borough, it is thought that the oil industry, upon which the Borough is dependent for financing, will face a different regulatory environment because of the spill. Within the structure of the Borough itself, communities have come to expect a lot from the Borough in emergency situations, and it is considered likely that the division of emergency management, which is now part of the mayor's office, might well become its own department, based on its increased importance over the past year, not only in serving the needs of the communities with respect to the oil spill, but also management of the emergencies associated with ashfall from the repeated eruptions of Mt. Redoubt. It is also considered likely that there will be a separate division or subset of that proposed department that will deal exclusively with emergency response. In terms of the politics of the Borough, since the oil spill environmental and fishing groups have become much more closely aligned in their desired political ends and have been working together more closely than in the past.

The Borough experienced a number of other impacts as a result of the oil spill. Many of these impacts stemmed from the Borough's role as dispenser of Exxon monies to the communities as reimbursement for oil spill-related expenses. However, there were impacts more typical of municipal departments. For example, the Borough's public works department reported difficulty finding construction workers for repairs to the school in Seward. In addition, the public works department lost its manager of road maintenance in January 1990 while he worked for six months on the Borough's emergency management team for the winter cleanup. In the interim, he was replaced by his secretary. The secretary's position was filled by a temporary employee whose salary was paid out of monies given to the Borough by Exxon.

In late October 1989, the Borough was cited by the state of Alaska for not maintaining the landfills in the villages of English Bay and Port Graham. While the Borough is ultimately responsible for the landfills, the local Native Corporation is contracted to maintain them. To remedy the problems at the landfills the Borough was required to barge heavy equipment twice to the two villages. The expenses for manpower, overtime, and transport of the barge cost the Borough \$6,000. The Borough was reimbursed for these expenses by Exxon because the Village Councils claimed the landfill workers had been working on the cleanup from the oil spill. However, one Borough public works employee noted that at other times in the past the Native Corporation has failed to meet its contracting duties so it is not clear the oil spill is entirely to blame for the unmaintained landfills.

Finally, the sports center funded by the Borough lost employees and had trouble replacing them. Community service workers and other replacements circulated through the center but none became reliable employees. The manager could never leave the facility during operating hours because employees (when there were any) could not be trusted -- one morning he "found a couple of them robbing the place." Consequently, his work load increased dramatically. This does not show in direct costs, however, as his "overtime" will in actuality be "comp time." The Sports Center's biggest source of revenue comes from the annual Commercial Fishing Show which is hosted there. Since 60% of the exhibitors cater to driftnet fishermen, and the driftnet season was canceled, the exhibitors pulled out. This constituted about \$15,000 - \$20,000 in lost revenue for the center from a normal operating budget of about \$350,000.

The Cities of Kenai and Soldotna

The twin communities of Kenai and Soldotna form the hub of activity in the Central Peninsula region. The city of Kenai is the dominant market and business center for the area. It is a commercial fishing and processing center and the nucleus for oil and gas development in the Borough. Soldotna is the seat of the Kenai Peninsula Borough. The community is located 11 miles from Kenai at the principal highway crossroads on the Peninsula. Soldotna is the home of the Central Peninsula Hospital and the Kenai Community College. Sport fishing and tourism are the basis of Soldotna's economy with the Kenai River, the Kenai National Moose Range, and a number of state recreation facilities. Soldotna also serves as a bedroom community for oil industry workers in Cook Inlet, Swanson River, and the North Slope.

Response Effort

Exposure to the Oil Spill

Neither Kenai nor Soldotna experienced direct exposure to the oil from the grounding of the *Exxon Valdez*. With a few exceptions, which will be described below, these communities were relatively unscathed by the oil spill and cleanup activities. In fact, both the private and public sector of these Kenai and Soldotna saw some benefits indirectly related to the oil spill, and damage was limited to relatively discrete economic sectors. (Please see LAI Interim Reports 1 and 2 for fiscal and business impacts.) The benefits came primarily from increased tourism to the Kenai River which was unusually abundant with salmon, a phenomenon some have attributed to the closing of the driftnet fishery; the damage was primarily limited to driftnet fishermen and those businesses dependent on driftnet fishing. While the impacts on driftnet-dependent businesses were significant, they comprise a relatively small segment of the mixed economy of the area.

It is important to note that although driftnet fishermen were compensated for not being able to fish, that money was redistributed and circulated through the economy in a different way than had that money been earned fishing. There clearly were consequences to not fishing that do not show up a "bottom line" analysis alone. Money was not distributed to spin-off or support industries, crew, cannery workers, etc. in the same way as previously.

Local Response Effort

There was no local cleanup response effort in either Kenai or Soldotna which can be compared to that of other communities. Neither Kenai nor Soldotna was a base for cleanup operations so there wasn't the influx of people or oil spill-related activity that other communities in the Borough experienced. Rather, the most widespread impacts from the oil spill were more subtle. Most significantly, city department heads commented on the implications of the oil spill for the long term future of the economies of their communities. They worried about the possible shift in the regulatory environment which could render the local oil and gas industry, particularly in the Cook Inlet, upon which so much of the economy of both communities rests, unprofitable. In addition, the paucity of available wage laborers, while felt less strongly than in coastal communities dealing directly with the oil spill, had reverberated to the Kenai/Soldotna area.

The closing of the driftnet fishery not only put fishermen out of work, it affected the local canneries in a unexpected way. While the canneries did not have to close as anticipated because they were able to process fish from Bristol Bay, they were unable to supply 80% of their market. One effect that concerns local interests is that this may jeopardize the source of future markets for the local fisheries since the canneries may be perceived by the buyers as unstable and unreliable suppliers, but this will not be confirmed or disconfirmed until after the 1990 seasons.

The only local non-governmental organizational response to the *Exxon Valdez* oil spill consisted of a group of Kenai fishermen and consumers who organized a non-profit corporation called OEKOS in Fall 1989 "... dedicated to prevent further ocean destruction and to revive the natural ocean economy in places where destruction has occurred." The group was not involved in cleanup response. Their focus is on environmental issues and increasing awareness of the ecology of the marine environment. The group has published the first of edition of its quarterly newspaper "The Ocean Citizen."

Local Government

Municipal services in Soldotna include water, sewer, a library, an airstrip, a police department, and camper park. Of these, only the camper park and the police department experienced increased activity during the summer of 1989, but these can only be attributed

indirectly to the oil spill. Informants strongly stated the increased activity was due to the high volume of tourists who came to take advantage of the huge salmon run in the Kenai River. The contractor for the camper park reported that summers at the park are always busy but that the summer of 1989 was particularly busy, again because of the larger than usual salmon run. As a result, an assistant to the park manager was hired. The increase in park use is reflected in the camper night figures, which rose in comparison to past years.

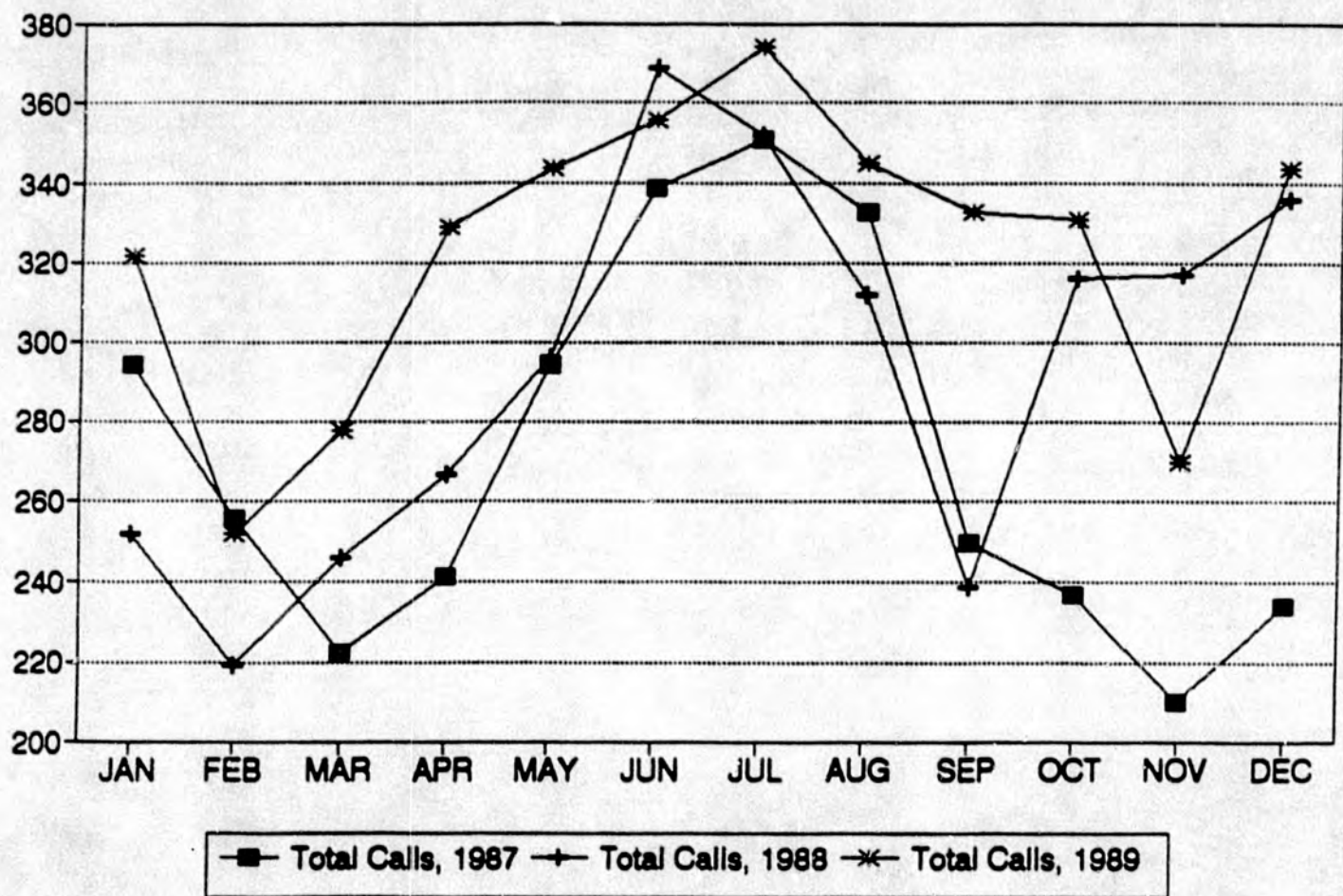
Total calls to the police department and citations issued during the summer of 1989 had risen over the previous two years. The graphs below illustrate the trends in police department activity. The activity of the patrol officers was routine in nature and did not require officers to work a significant amount of overtime. The police department also did not lose any employees to work on the cleanup.

In Kenai, the biggest impact was to the city dock facility which lost revenue with the closing of the driftnet fishery. The City submitted a claim to Exxon for \$40,000 and in the end was able to recoup most of its losses from \$32,000 compensation. (The \$8,000 difference is accounted for by a disagreement in labor costs -- the City did not hire seasonal employees for dock positions, so this cost was disallowed by Exxon claims personnel as an expense not incurred.)

The finance department was another municipal department that was reported to have been affected by the oil spill. The impact in this department was due to time spent on oil spill-related work such as keeping track of all billing for losses at the city dock. In addition, there were "... little things that happened - there was additional load on the secretarial staff because we'd get reams and reams of faxes and reports coming over the fax machine that had to be filed ... but it wasn't such an undue load on the staff that it caused them not to be able to function in their areas."

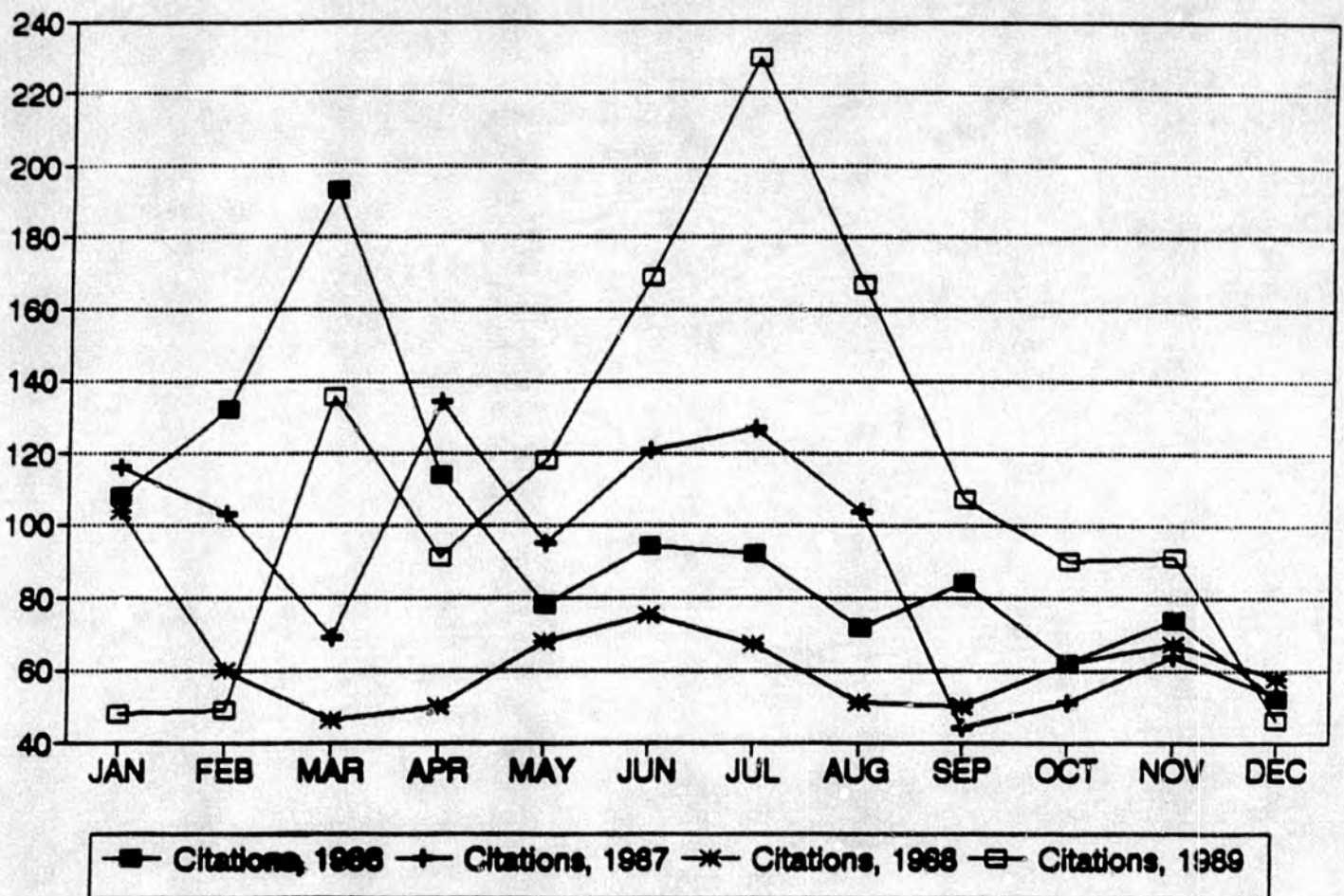
Soldotna Police Department

Total Calls, 1987-1989



Soldotna Police Department

Citations Issued, 1986-1989



Changes in Community

As discussed above, the economies of Kenai and Soldotna are heavily dependent on the oil and gas industry. While informants in the Kenai/Soldotna area reported no immediate adverse impacts from the oil spill (outside of driftnet fishing related concerns), many expressed concern that oil spill would ultimately affect their economy if new legislation made oil and gas exploration and exploitation in Cook Inlet less feasible.

Mental Health

Several mental health facilities serve the needs of the communities of Kenai and Soldotna. However, only one, the Kenai Women's Resource and Crisis Center reported an increase in demand for services or a loss of staff. The Center had 17 people on its staff prior to the oil spill and depended quite a bit on its pool of 35 volunteers. Following the oil spill, two staff positions were vacated and a large portion of the volunteers quit. Some volunteers resumed work after the active cleanup phase but not all. One of the permanent staff members who left was the Volunteer Coordinator. The loss of this person put added burden on remaining staff, especially as demand for services increased.

During the summer and fall of 1989, occupancy at the shelter increased significantly over past years. A shelter staff member reported that the added demand in many cases seemed to be related to the oil spill as stress in the home increased with husbands not being able to fish. The following table presents statistics from the Women's Resource and Crisis Center on the number of bednights and residents by quarter for Fiscal Years 1987 - 1989.

Another provider of mental health services is the Cook Inlet Council on Drug and Alcohol Abuse (CICDA). The Cook Inlet Council on Drug and Alcohol Abuse in Kenai serves residents from Kenai, Soldotna, and outlying communities although there is a branch of CICDA in Homer. The center in Kenai provides an out-patient treatment program, an education series for abusive individuals, a drinking and driving seminar, and runs the local Alcohol Safety Action Program. Staff at CICDA reported no impact on the Kenai center.

The third source of mental health services is the Central Peninsula Hospital which began the chemical dependency program in 1986 called the Family Recovery Center (FRC). There was no increased demand for services at the FRC according to hospital records.

Kenai Women's Center Selected Statistics, FY 1987-89			
Bednights			
	FY 87	FY 88	FY 89
1st Quarter	1000	1264	1377
2nd Quarter	773	995	1379
3rd Quarter	939	683	1076
4th Quarter	450	939	746
Residents			
	FY 87	FY 88	FY 89
1st Quarter	76	65	66
2nd Quarter	34	55	65
3rd Quarter	36	37	41
4th Quarter	50	73	53

Outside of the clinical context, there were disruptions in personal lives. As one person who was both a fisherman and a government official put it:

You know I can just say from personal experience -- man, it changed my life not fishing last year, I don't care how much money I made and got paid. I didn't know that I was going to get paid, I had bought a new engine for my boat and was planning to get married. I mean I could get up every day and ~~not~~ know . . . [if I was] gonna get up and go to work. It's a pretty alarming thing -- you [could] see the way it sat on people ~~and~~ caused conflict with people, it was really a tough deal . . . and I think it's gonna be different for a while, if we go fishing this year we are going to be fishing around oil in a certain respect. It's overly simplistic, I think, to say that as long as a fishermen get paid then that's all it takes . . . It was a tough

thing to see, I know some people who have gotten into major emotional battles, major personal relationship battles, and economics is overly stressed.

Medical

The Kenai Health Center in Kenai is a state-funded medical clinic staffed with two Ph.D. nurses, two community health aides and two clerks. Participation in a program offered by the clinic, which gives health screenings to children to determine eligibility for Medicaid, increased sharply after the oil spill. The children seen were children of younger parents who came to the Kenai/Soldotna area for cannery jobs. These families depended on the seasonal earnings from the canneries. When the oil spill occurred, some canneries closed and these families applied for state assistance. Thus, the Kenai Medical Center saw more children for the health screenings.

Central Peninsula Hospital is a 62 bed hospital serving the entire Central Peninsula region. The Hospital Administrator reported no changes in staffing or work load as a result of the oil spill.

City of Seward

Seward is a coastal community built on a glacial moraine at the head of a deep-water inlet known as Resurrection Bay. The community is 80 air miles south of Anchorage, 190 air miles northeast of Kodiak and 60 air miles southeast of Kenai. Prior to the Good Friday earthquake of 1964, Seward was a thriving city. It was the center of the Alaska Central Railway and provided access via passenger ship, railroad, air, and highway to the Kenai Peninsula and the Interior. Since the earthquake, much of the transportation activity has been diverted to Anchorage. Seward has responded to these changes by diversifying its economy. Seward's commitment to a diversified economy has resulted in the development of the Seward Marine Industrial Center, the Chugach Forest Product Mill, the Suncoast Coal facility, and the decision by the state to place the Alaska Vocational and Technical Center (AVTEC) and a state prison within the city limits. Other industries contributing to the economy of Seward are tourism, commercial fishing, and local government employment.

The population of Seward is approximately 2,400, and most of the residents are non-Native. Incorporated in 1912, Seward is a Home Rule City and a part of the Kenai Peninsula Borough.

Response Effort

Exposure to the Oil Spill

Oil from the *Exxon Valdez* spill moved up the waters of Resurrection Bay, in spite of early assurances from spill officials that it would not. Within the city limits of Seward, tar balls and mousse were found on several area beaches. In addition to oiled coast adjacent to Seward, there were a number of fishing areas outside of Resurrection Bay that were contaminated by the oil. According to one city official, "[Exxon and VECO] were throwing the figure around in *tons* of debris that they picked up." Much of the shoreline hit by oil in the Seward area is within Kenai Fjords National Park, a federally owned and managed recreational area, or owned by the Chugach Alaska Corporation, the local Native Corporation.

The different statuses of the land around Seward allowed for potential conflicts of interest to evolve in terms of which areas should receive highest priority for boom and other protective measures. Fortunately, conflicts never actualized. Despite the differences in jurisdiction, those involved in Seward's emergency management effort ultimately unified into what was called the Multi Agency Coordinating (MAC) group, and approached the cleanup of the Seward "zone", Cape Puget to Gore Point, as one ecologically integrated area. There was almost unanimous agreement among informants that this action allowed Seward to survive the spill summer with minimal chaos in the community and to mitigate damage to the environment to a degree that would otherwise not have been possible.

Local Response Effort

In contrast to the course of events in other communities in the study, the MAC group in Seward was able to exercise a large degree of autonomy and authority over Exxon's and VECO's cleanup operations. This was because the City and the National Park Service (along with other locally represented entities) were able to combine their resources and their authority to take action and speak about the oil spill as a unified voice on behalf of Seward. It took only 14 days for the fusion of these entities formally occur. The first meeting of the MAC group took place on April 3, 1989.

The evolution of the MAC group can be attributed to a number of factors unique to Seward. First there are those which preexisted the spill. Frequently mentioned by Seward's department heads was the city's prior experience in dealing with emergencies. Since 1985 the community has experienced the effects of a volcano, a couple of large tsunami warnings, and a major flood which completely cut off the community. Consequently, the procedures for dealing with an emergency were already in place and people were familiar with them, and they had recent hands-on experience in mobilizing emergency resources. In the words of one local official, "the only way you can prepare for a disaster is to have a disaster." Secondly, most officials in Seward's City government were long time residents of Seward and Alaska as a whole. They had typically known each other for many years, had established working relationships, and had access to a network of friends in local, regional, and state governmental agencies. This tremendously facilitated the acquisition of needed materials and manpower. As one department head commented, "I know just about every administrator and police [chief] in the state and so it makes it a whole lot easier to be able to just call somebody and get something done." Finally, the military background of some department heads was credited with contributing to an awareness of the logistics of the emergency mobilization of resources and an understanding of the potential resources available through the Interagency Incident Management Team (IIMT). This IIMT had been dispatched first to Valdez, but that community declined their assistance; the "snatching up" of the IIMT by Seward, when it became known it was available, is credited by local officials as an extremely critical component of what is viewed as a successful response to a difficult set of circumstances.

There were several reasons Seward was able to distinguish itself as community capable of managing its own cleanup efforts. One was the use to which the Park Service and the City's emergency commander put the IIMT from the Alaska Fire Service in Fairbanks. Designed as a management and command structure for major critical incidents (particularly large wildfires), when this "overhead" team first arrived in Seward, about seven days after the spill, they were sent on reconnaissance missions. However, when leaders realized that oil on their coastline was immanent, they decided to use the IIMT in a proactive way and deploy the 10,000 feet of boom acquired by Seward's port marketing director. (Boom was acquired through early and persistent effort after Seward was informed by oil spill managers that

none was available in the country -- Seward tracked it down to the source and arranged for direct shipping.) However, in doing so they preempted the existing overall incident command structure, which gave only the Coast Guard the authority to take such action. Nevertheless, the incident command system leaders in Seward were commended by Senator Stevens and encouraged to protect their own natural resources if the Coast Guard and Exxon were not.

Prior to the utilization of the IIMT, local resources were first mobilized through the use of an incident command system (ICS). The ICS, with the fire chief given emergency command powers under city authority, is the means by which the city typically responds to emergencies. This system gave way to others during the oil spill due to the size of the spill and the fact that it extended far beyond city boundaries (and the fact that city needs were best served by cooperating with and sharing power with outside agencies). Subsequent to, and overlapping with, the utilization of the IIMT, the MAC group was formed as local officials transitioned into IIMT-established organizational and command categories. The IIMT established the structure of the incident response; as IIMT personnel trained local officials to take over particular slots in the structure the MAC group until it became fully operational. Eventually, all IIMT personnel were phased out to allow them to return to their regular assignments and to turn over control to local entities. The MAC was run by a representative from the National Park Service and the City with the IIMT performing the operational tasks. What made the MAC group unique was that the leaders decided to expand representation in the group to include members of the Fish and Wildlife Service, the Chugach Alaska Corporation, Alaska Department of Fish and Game, the Department of Natural Resources, and a representative from a commercial fisherman's group. Eventually, Exxon agreed to cover any expense the MAC group approved if Exxon could have a representative in the MAC group meetings. The MAC group met seven days a week setting daily objectives for the cleanup. A MAC resource group was set up to provide input on technical and scientific matters.

The IIMT served as interim support for about two weeks. In the middle of April, the IIMT began demobilization from Seward and turned over its resource acquisition responsibilities to Exxon. However, the first Exxon representative in Seward was so impressed with the efficiency and organization of the IIMT that he requested the IIMT commander remain in Seward long enough to train the Seward Exxon Staff to run an incident command system. By replacing the IIMT which received assignments from the MAC group, Exxon ipso facto became, in a sense, a resource of the MAC group.

The cohesiveness of the MAC group, and the control that was maintained in Seward as a result, served as a model for other communities affected by the oil spill. A number of mayors and representatives from other communities came to Seward to learn their management system. Initially, the Kenai Peninsula Borough planned on only having one MAC group to coordinate spill response, but the success of the Seward MAC in handling local as well as regional issues resulting in Homer seeking and receiving their own MAC.

Local Government

Personnel in all departments of Seward's local government experienced excessive demands on their time following the oil spill. Most often the demands resulted from loss of department staff combined with increased work load. Following is a description of the type and extent of impacts within Seward's local government.

City Clerk's Office: The city clerk's office was responsible for setting up the Emergency Operations Center (EOC). The process of setting up the EOC went relatively smoothly in Seward because the clerk had gone through emergency training and had experienced the activation of the EOC during the major flood the community experienced several years before and was somewhat prepared. The EOC (run by means of the ICS with the fire chief in command) was open 24 hours per day from March 30 - April 3, 1989. The individuals working in the EOC kept detailed logs of incoming calls and faxes of which there was an enormous amount. The activity slowed after April 3rd when booms started coming in, the response became more organized, and calls could be forwarded to appropriate persons by the regular city receptionist. The logistical and organizational tasks the EOC had been performing were turned over to the Multi Agency Coordinating (MAC) group.

The regular work of city clerk's office could not be deferred because of the oil spill. Consequently, employees worked an average of 14 hours per day while the EOC was operating. Oil spill-related work accumulated in the city clerk's office even after the EOC was dismantled. Their office was responsible for taking the minutes of Oiled Mayors meetings and keeping track of all oil spill-related city transactions. Almost one year after the spill, the deputy clerk retained boxes of oil spill-related notes, faxes, letters, and logs that had yet to be filed.

The Harbor: The harbormaster reported that the biggest problem in his department following the oil spill was the lack of available manpower for the distribution of booms and other oil spill-related work. The harbormaster was ordered by the City administration to assist in the shore monitoring. Beginning at "4th of July Creek" beach and along a 15 mile stretch of coast, harbor employees were assigned a walking survey to look for tar balls. This left the two office clerks to take care of all the business at the harbor itself. Attempts to supplement manpower at the harbor proved fruitless as the city was unable to pay as much as Exxon and VECO. In addition to the personnel crunch, approximately six planned projects were deferred at the harbor, the ultimate cost of which is yet to be realized.

The harbormaster had a number of problems getting Exxon and VECO to comply with their procedures for boat registration and for cleaning boats that had oil on them. A certain area was designated for use by VECO "as a favor" but VECO personnel cleaned oil off their

boats even after they had been requested not to. The harbormaster put signs on the dock threatening impoundment for noncompliance. Then a letter was sent to their attorney but there was no improvement in the situation. The harbormaster eventually threatened to have the crew arrested; that stopped the washing of oil into the bay.

An additional burden to the department came from assistance calls that required employees to go ten miles to the end of Resurrection Bay. This was much further than they usually go as their jurisdiction only extends to the harbor boundaries. They were caught in high seas during a few of these call-outs which added to the harbormaster's frustration.

The Public Works and Engineering Department: The personnel in the public works and engineering department in Seward experienced excessive demands in the aftermath of the spill. For the electric utilities branch, demand for service increased. The department reported a ten percent increase in service calls. Employees had to install new transformers for the otter center and the waste disposal site. Virtually all maintenance and system improvements that had been planned for the summer of 1989 were deferred. At the end of the summer employees had to dismantle the newly installed transformers which again increased their work load.

The water/sewer crew also experienced drastic increases in activity as a result of the oil spill and cleanup activities. Two employees that work on an on-call basis quit to work for VECO, making the permanent employees responsible for even more work. The City was strict about what it would and would not allow flushed into their sewage system. According to department personnel, they could not trust Exxon officials to obey the City ordinances in this regard. The superintendent of public works was called upon a number of times to go to the place where Exxon and was supposedly treating and storing its sewage to prevent illegal dumping into the bay.

The maintenance crew deferred painting curbs, cleaning drainage ditches, and maintaining equipment because of increased work load. The manager reported a 10-15% increase in direct costs due to deferred maintenance. Crews found it impossible to clean the streets because of all the cars. The inability of employees to get their work done reportedly increased stress and lowered morale substantially. The engineering branch of this department, which serves as the enforcement arm of City Planning Department, also experienced increased work load following the oil spill. All new temporary structures that were erected in Seward had to be inspected and given a permit by the engineer. No exceptions were made despite the emergency situation. The department manager reported that employees worked seven days per week and accumulated a large amount of overtime.

The High School: The principal of the high school in Seward reported that he and some students experienced some unique effects of the oil spill cleanup operation. There were

seniors who owned boats and were old enough to work for VECO. These students wanted to drop out of school six weeks before graduating to capitalize on the opportunity to lease their boats. The principal felt responsible for making sure the students graduated yet did not want to deny them the opportunity to earn up to \$2000 a day which could be saved, applied toward college, or used to pay off a boat loan. With the cooperation of the teachers, the principal was able to work out a program whereby the students did their school work on the job and reported to teachers every ten days. One student took his boat all the way to Kodiak to work on the spill. His father chartered a helicopter to get his son back to school within the ten day limit. This program worked out well and all of the seniors who worked on the spill graduated on time. However, the time the principal spent on the phone and in consultation with students and employers took time away from his usual duties.

The principal reported there were positive educational benefits to the students as a result of the oil spill. An animal expert, a specialist on the environmental damages from the oil spill, and an Exxon employee came to the school and gave talks to students. The principal also believes the students gained some awareness of environmental issues.

Parks and Recreation Department: Retaining summer employees to work at the campground, the swimming pool, and as program aides was the biggest problem experienced by the Parks and Recreation department following the oil spill. Normally during the summer there are eight positions at the campground. During the summer of 1989 there were never more than four working at any one time. There are usually four positions at the swimming pool but there were never more than two that summer. Five of the summer hires quit to work for VECO and the pool director quit on two days notice. According to department personnel, although there were candidates for many of the vacated positions, they were typically transients who were waiting for cleanup jobs or could not be trusted with park fees. The employees who remained with the parks and recreation department did not accrue a significant amount of overtime because they were part time who worked full time.

A burden was placed on City finances when administrators were forced to open the campgrounds a month early in mid-April instead of mid-May. This was necessary because the transient population that came to Seward to find work on the cleanup stayed in the campground area. In response, the City decided to start collecting fees. According to department personnel, there were difficulties. The transient workers claimed they were unable to pay the park fees and yet were "sitting next to three cases of beer." Many of them drove recklessly, became rowdy, and verbally abused law enforcement personnel.

The City of Seward lost revenue from camper nights which were down from 15,000 in the summer of 1988 to 13,500 after the oil spill in the summer of 1989. This decrease amounted to about \$10,000 in lost revenue, and may be taken as an indicator of the effect on tourism in the city.

The Library: The primary impact on the library from the oil spill came from increased use of the facility as a place to pass time. Oil spill workers were unable to obtain library cards so circulation was not affected. The lounge area for recreational reading was constantly full and library personnel were inundated with questions. Use of the paperback exchange increased as did the use of records and tape machines to make tapes.

Police Department: There were significant impacts on the Seward Police Department during the spill and cleanup period. These are described in the section on crime, below.

Changes in Community

Changes in Social Relations

With an estimated influx of at least 5,000 people, there was a housing shortage. After all the hotel rooms were full, people had to camp on the beach. The only hard data on effect of the housing shortage came from the director of the Alaska Vocational/Technical Center (AVTEC) in Seward. He reported that a few married students (4-5% of the entire enrollment) were unable to find housing and had to withdraw from school.

More than one city employee expressed resentment at those who worked on the cleanup and were able to make purchases of brand new cars and other things. They wondered if their loyalty was really the right decision.

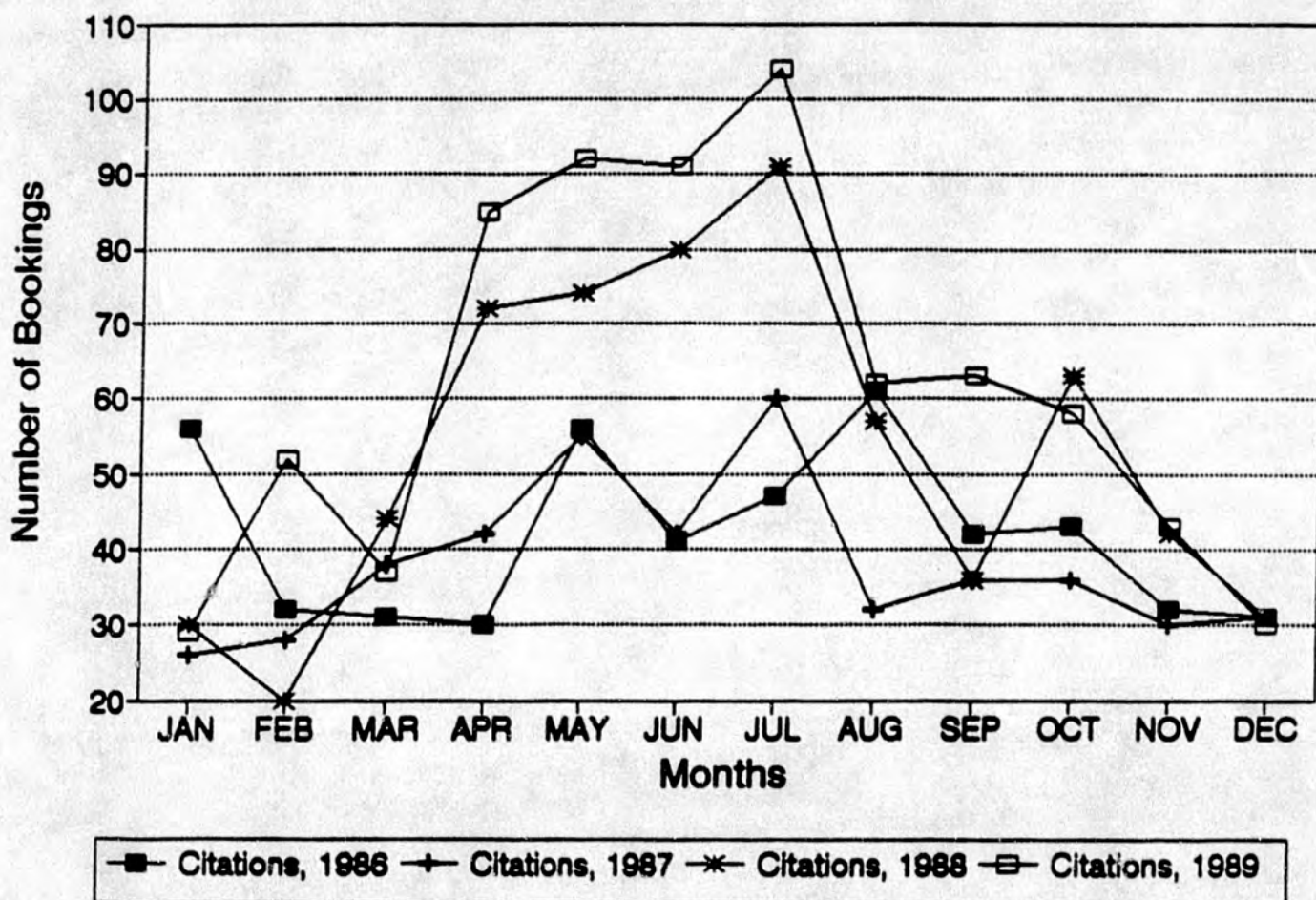
Crime

The influx of strangers into the community changed the small-town atmosphere of Seward. One day care teacher reported that during the cleanup operation parents felt uneasy leaving their car unlocked and running when picking up their children. Suspicions of criminal activity were confirmed by those who had more direct contact with crime such as the public safety department and the court. The police chief reported that the jail count was the highest during the summer of 1989 than it had ever been. These and other indicators of increased criminal activity in Seward appear in the following graphs.

The police chief reported that while formal actions taken by police would reveal some increase in crimes following the oil spill, a large proportion of the criminal activity which occurred would not show up in the statistics. These were crimes that often occurred at night and were dealt with informally by the patrol officer.

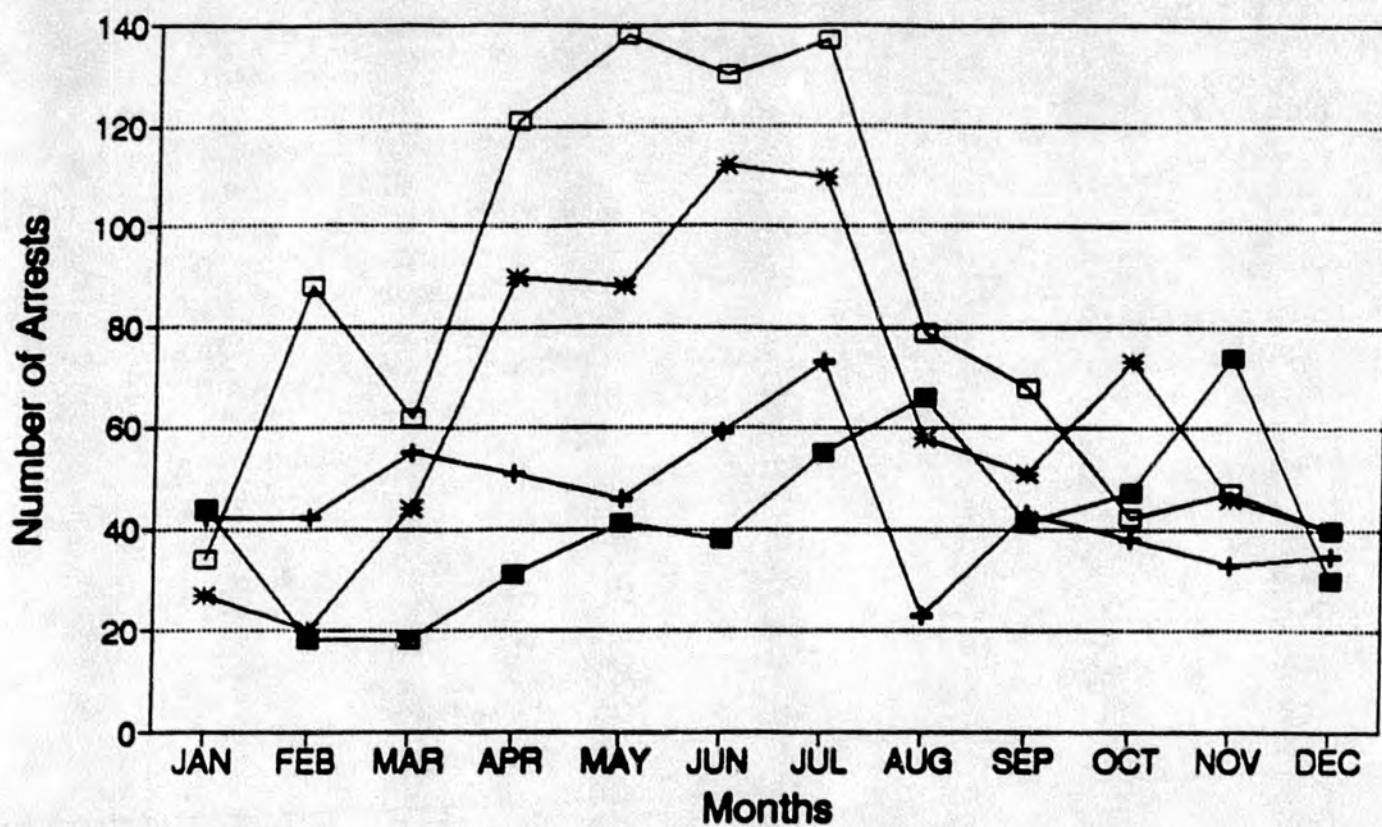
Seward Police Department

Jail Bookings, 1986-1989



Seward Police Department

Total Arrests, 1986-1989



Total Arrests, 1986
 Total Arrests, 1987
 Total Arrests, 1988
 Total Arrests, 1989

Also significant was the increase in alcohol-related offenses. While the number of alcohol-related offenses decreased by 11.4% between 1987 and 1988, the number rose by 50.2% between 1988 and 1989. These statistics are consistent with what staff at Seward's mental health clinic reported -- an increase in clients with alcohol abuse problems that resurfaced following the oil spill.

Way of Life

One of the important dimensions of Seward's response to the oil spill and the associated cleanup activities is that, according to city leaders, the community retained control over life in the community. Leaders are quick to draw comparisons between Seward and Valdez as contrastive experiences. Most people attribute the differences between the communities to the fact that Seward had some lead time and could afford to do at least some planning, whereas Valdez was hit hard within a short period of time. According to one city official, Seward did not let Exxon and VECO "run the show." Exceptions to building codes were not made, temporary structures were not thrown up in town, compliance to local hazardous waste laws were enforced, and the transient worker/job seeker camping was contained to specified areas. As an example, one official related that there was an attitude in Seward that the city would retain control. Apparently at one point Exxon was going to call a town meeting, and were told that only the city council would call town meetings, and Exxon could address the meeting if they desired, but it would be within the framework of city council control. In this way, the city would be able to control that which they perceived as having gotten out of control in Valdez. Clearly the establishment of a coordinated response through the MAC group (and its local predecessors) so that Exxon/VECO were presented with a structured environment to work within, contributed to the sense of retaining control of a way of life in the community. Additionally, the inclusion of fishing interests in the operations of the MAC, and in such activities as fly-overs of the spill area and so on, contributed to the sense of a unified approach to what was seen as a community-wide problem. While many people reported severe disruptions of their way of life during the summer of 1989, there was a strong sense among community leaders that the way of life in the community was not permanently changed. Impacts to individuals, of course, varied in their intensity and direction, and are treated primarily in the data from the household survey.

Family

The question of whether there was a lack of child care in Seward during the summer is subject to dispute. Informants generally agreed that one day care facility closed because one of its two employees left to work on the cleanup, although one person reported that facility had been experiencing problems prior to the spill. The owners of the other two licensed day care facilities reported there was no day care crisis following the closure of the third center.

They never operated at capacity nor did they turn away clients, however, enrollment statistics for June, July, and August of 1987-1989 from one of the facilities show an increase for all three months in 1989.

Day Care Enrollment Nana's Nuggets (Seward)			
Month	1987	1988	1989
June	75	86	111
July	89	85	98
August	95	63	107

The number of hours children spent at day care reportedly increased in some cases as parents worked longer because of the oil spill activity. Weekend enrollment actually decreased at one of the day care centers. The informant attributed this not to parents spending more time with their children but, rather, to parents taking children to relatives who could watch the children on a 24 hour basis. In addition to relatives, an informal network of babysitting emerged when the high school let out which may have relieved the potential burden on the day care facilities. The day care facilities also reported they did not lose employees to the oil spill as did other businesses because some caregivers were too old to work on the cleanup and others simply weren't interested. In contrast to these reports from the operators of the day care facilities in Seward, more than one City official mentioned that lack of day care was a big problem, as did some other residents. The origin of these different perspectives on this issue is unknown.

Mental Health

The Seward Life Action Council (SLAC) is the nucleus for a number of psychosocial services in Seward. SLAC offers counseling, runs the state's Alcohol Safety Action Program (ASAP), holds group meetings, and ran the Adult Action Center, an alternative meeting place to bars. An indication of how the lives of many Seward residents changed following the oil spill is reflected in the fact that SLAC was inundated with crisis calls, ASAP referrals, and people in need of counseling. One informant from SLAC reported receiving a phone call from the phone company saying they had busy signals more frequently than any

line they had heard of. Consequently, many clients calling for help were unable to reach counselors on the crisis line.

Limited data from SLAC have been tabulated and are presented graphically below. The graph of the number of clients by month indicates the number of different clients who visited the clinic. Outpatient contacts refers to the number of visits made by clients. Both of these graphs clearly indicate there was an increase in demand for mental health services during the summer and into the winter of 1989 compared to the previous year.

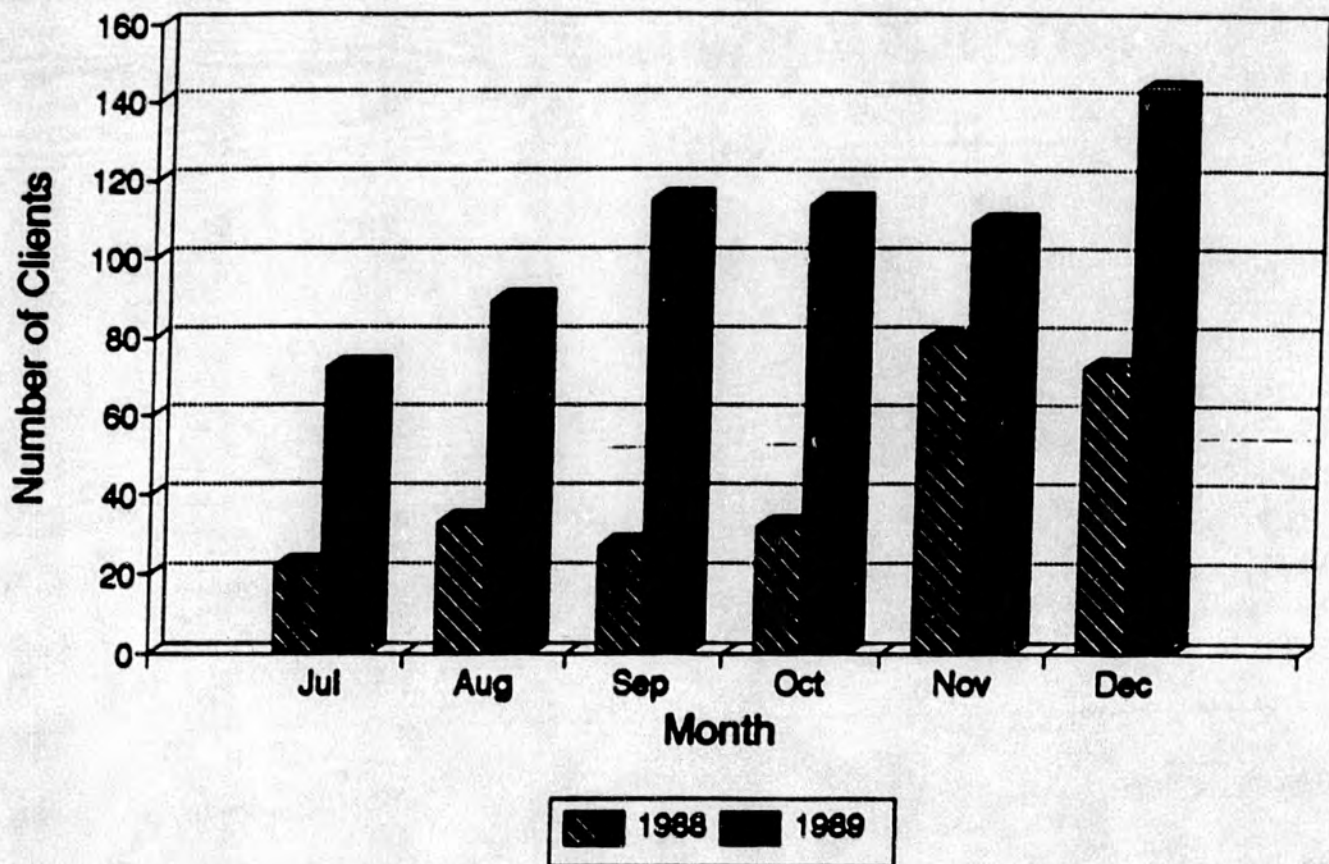
Compounding the difficulties in handling the increased demand, five volunteers at SLAC quit to work on the oil spill cleanup which made the work load for the remaining employees monumental. However, SLAC received a \$22,500 oil spill emergency funding grant. With this money the clinic hired a counselor with a masters degree in psychology. She handled the bulk of DWI referrals from the court. During the months of October through December 1989, she provided services to 40 clients with a total of 116 contacts. SLAC's FY90 Second Quarter Progress Report For Quarter Ended December 31, 1990 describes the mental health impacts in Seward:

Money was plentiful during the summer. Some people made more money than they had ever imagined. Some used it wisely; paid bills, got caught up, got ahead. Ms. --- saw many who squandered it on adult toys, and on legal/illegal substances. Not just a few woke up in Anchorage after a binge or in Seward after a bender, with nothing. This phenomenon was not like gambling and losing summer wages. This bonanza was once in a lifetime. It was a chance to finally have the resources to make a new beginning. But to have made a down payment on a house, for example, would have required a change of life style. Too many couldn't turn the corner. Instead they lapsed into familiar patterns which repeated waste and destruction. Ms. --- saw these "hardcore" alcoholics whose sobriety had been sabotaged by pseudo-wealth.

The report goes on to describe the increase in domestic violence and marital difficulties that seemed to be exacerbated by the oil spill and cleanup activities. The mental health effects continued after the demobilization of the summer cleanup when "... all the seasonal issues of late November and December in Alaska seemed geometrically intensified."

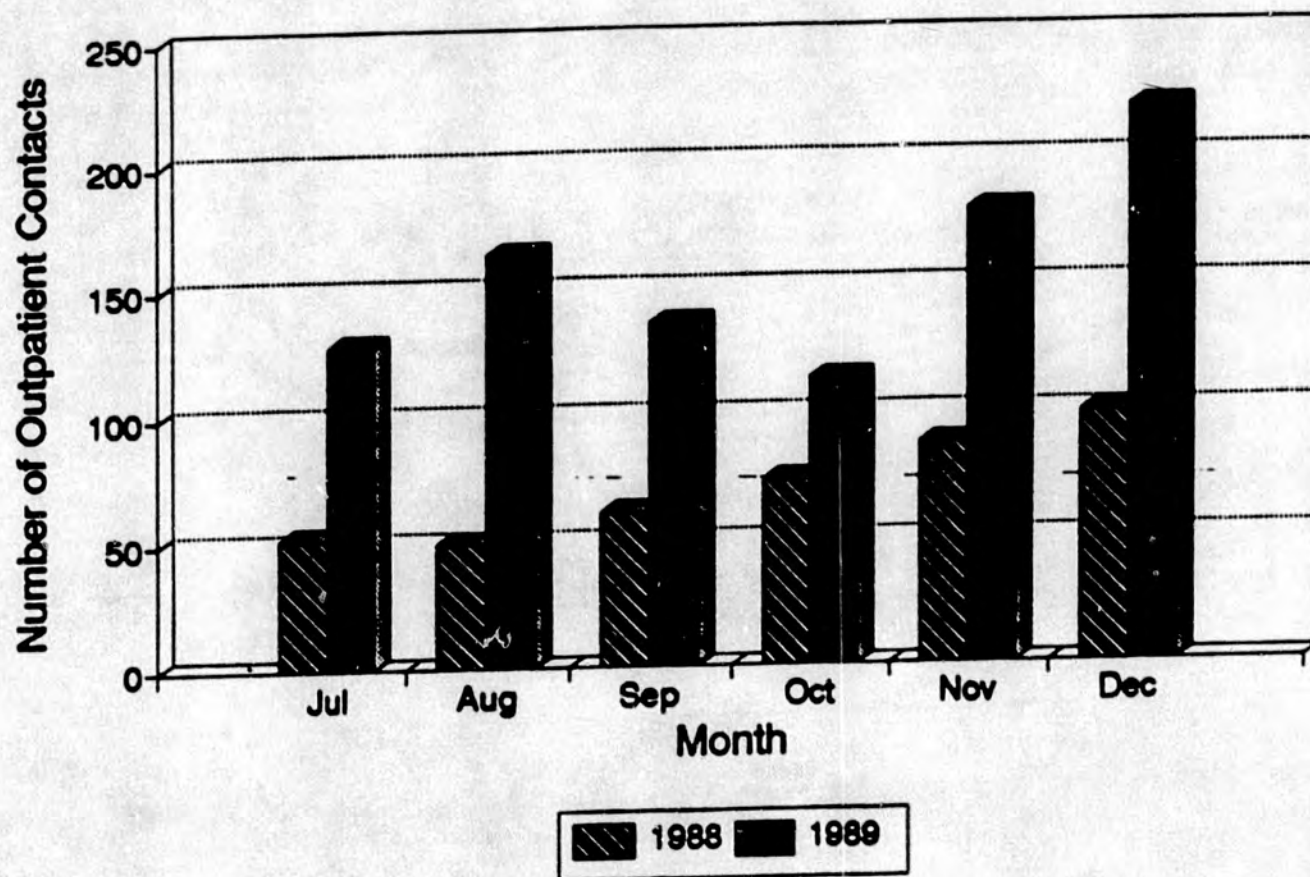
Seward Life Action Council - Seward, AK

Number of Clients by Month, 1988 & 1989



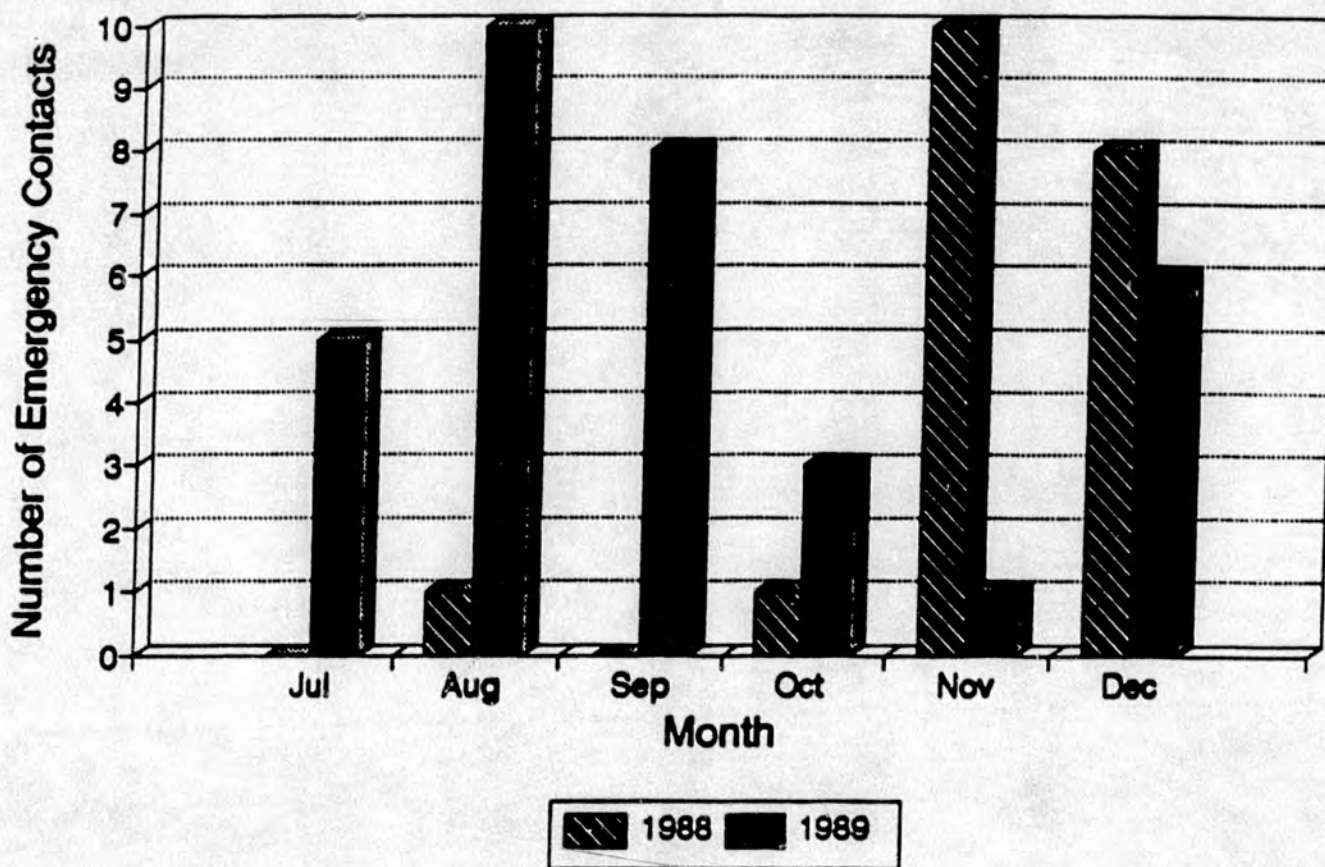
Seward Life Action Council - Seward, AK

Outpatient Contact, 1988 & 1989



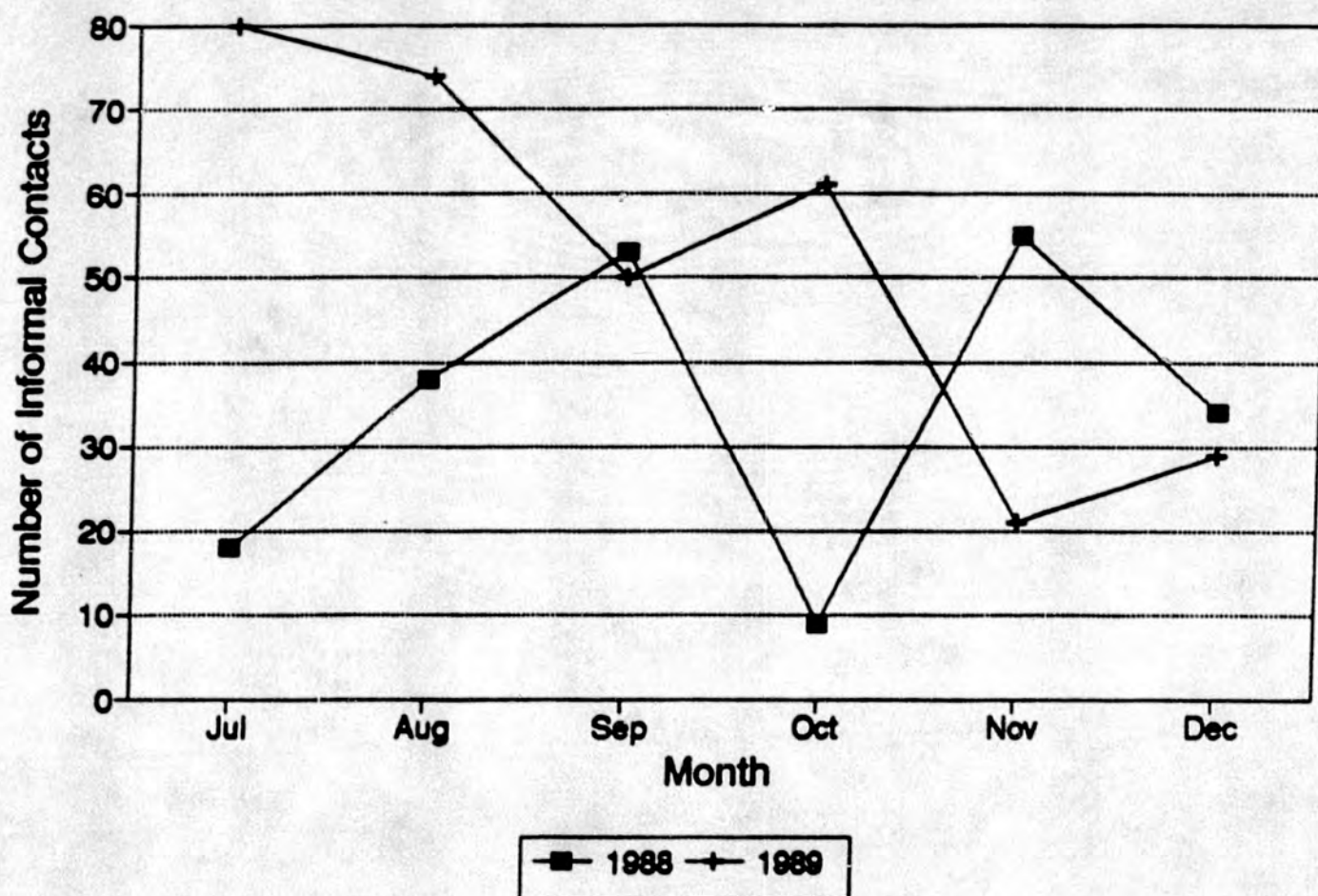
Seward Life Action Council - Seward, AK

Emergency Contacts, 1988 & 1989



Seward Life Action Council - Seward, AK

Informal Contacts, 1988 & 1989



The Seward Life Action Council Second Quarter Progress Report For Quarter Ended December 31, 1990 also reported that impacts on children were "awful" and began a children's group in response. The director of one of the day care facilities, who had extended periods of contact with children, described the behavioral changes she saw in children following the oil spill. Many felt angry and neglected because their parents were away from them for so many hours at a time. She reported a lot of crying and emotional disturbances. "The kids had always used to color nicely but since the oil spill they take a black crayon and cover everything black." This was attributed indirectly to the oil spill. In May 1989, two months after the spill, the kids were learning about and drawing pictures of sea life. All of the children reportedly drew the oil spill as part of their pictures and the subject of the oil spill hadn't been raised at the day care.

Medical

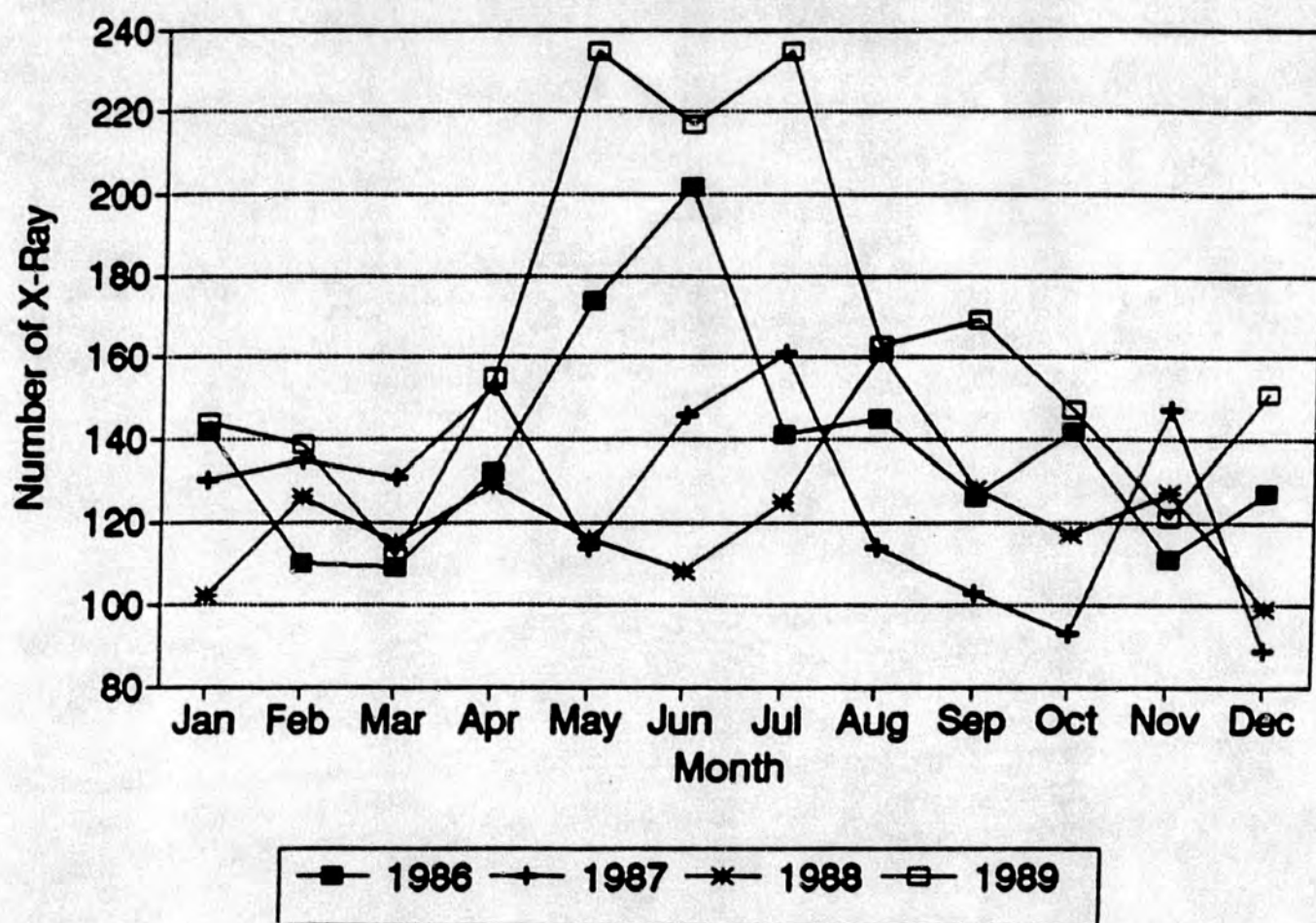
Hospital

Medical care in Seward is provided through Seward General Hospital. There was a marked impact on services due to the oil spill, and this impact was concentrated in specific areas. The magnitude of the impact was somewhat amplified over what might have been expected due to the structure of care in the community. According to one of the hospital directors, the care provided at the hospital is not of a volume equivalent to the needs of the local population. This is due to the fact that there is an estimated 60% outmigration of local residents to seek medical care. Being road connected, residents often seek care in Anchorage where they perceive the facilities and care to be more comprehensive. In other words, the Seward General Hospital, in effect, serves a community not the size of Seward, but a community approximately 40% the size of Seward in many respects.

The increased load on the hospital included many complaints of inhalation of toxic fumes; general exhaustion was another leading cause for care. Emergency room visits were up between 100 and 200% over a period of approximately four months, and there was a spill-over into increases in inpatient care. Laboratory facilities of the hospital were in very high demand for diagnostic testing. The heavy spill related load continued through the end of October. The following graphs present hospital use data for the oil spill period in comparison with previous years.

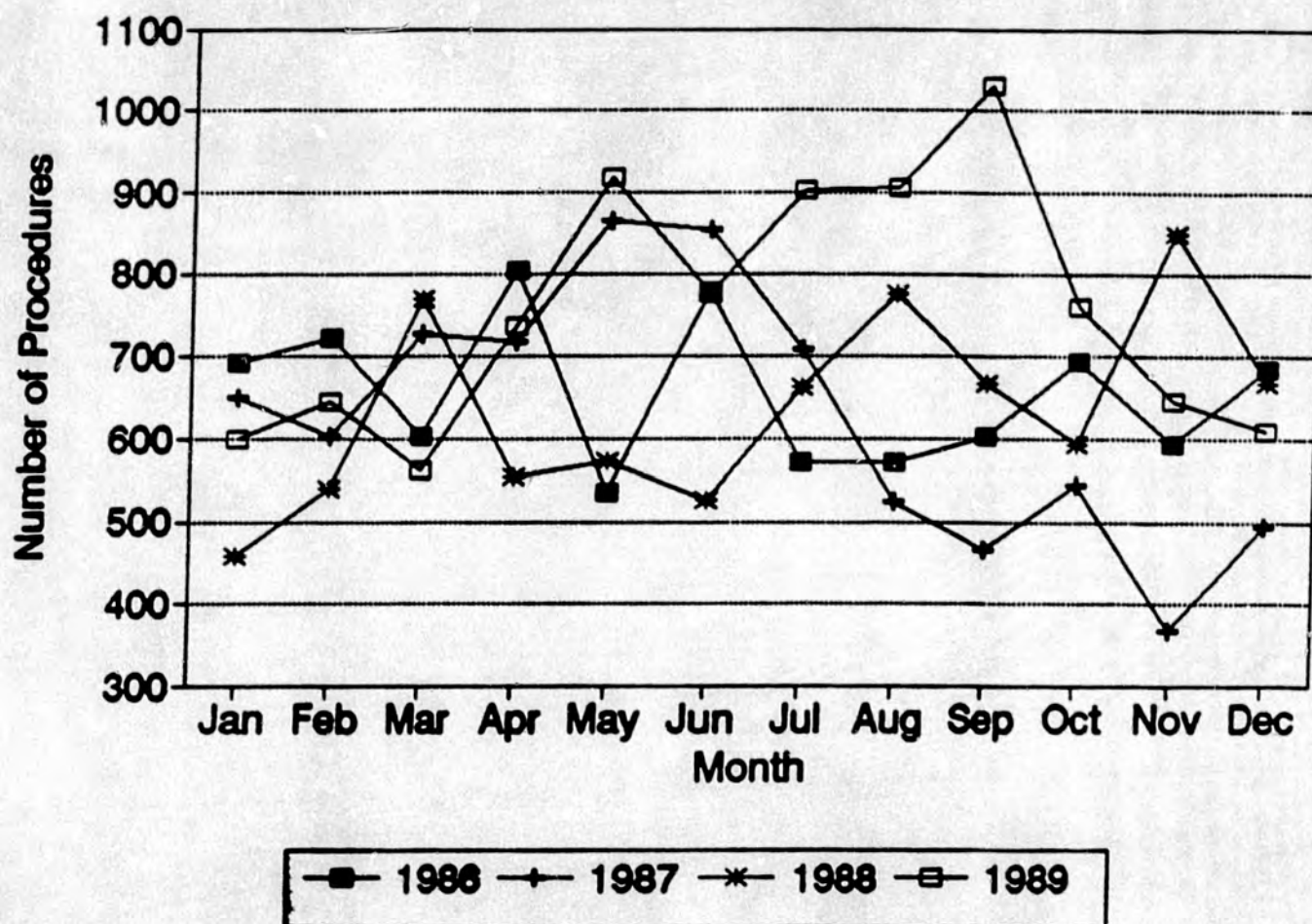
Seward General Hospital

Outpatient X-Rays, 1986-1989



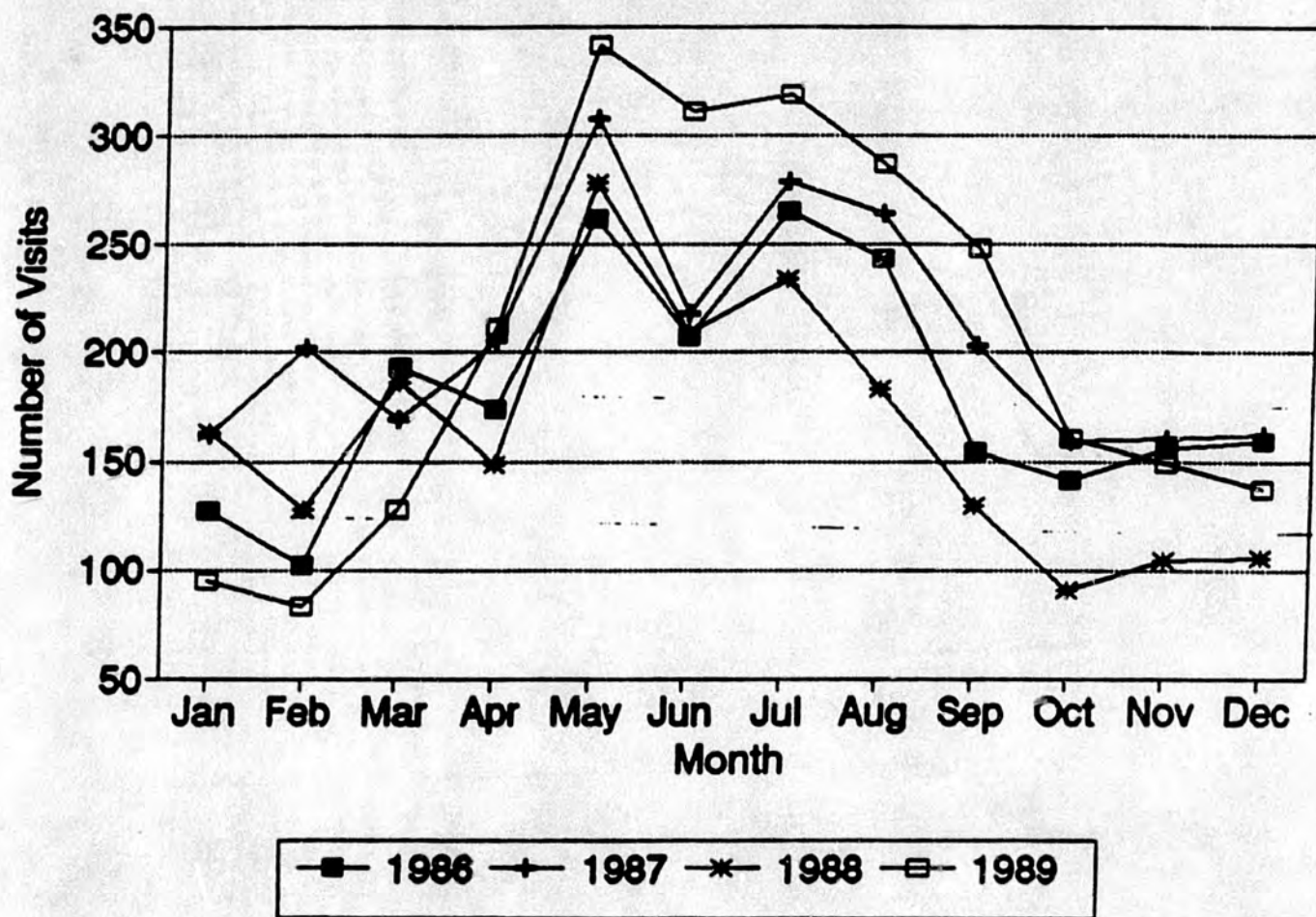
Seward General Hospital

Outpatient Lab Procedures, 1986-1989



Seward General Hospital

Outpatient ER Visits, 1986-1989



In order to alleviate the strain caused by increased demand, a PHS physician was assigned to the hospital for the period May through October, 1989. The physical facilities at the 35 year old hospital were also taxed, and a new phone system, funded by Exxon, was needed to handle the load. Revenues were up for the hospital, but so were expenses -- accounts receivable were higher than ever before. Staff were "overwhelmed" and the hospital faced a serious cash flow problem. A \$200,000 six month no-interest loan from VECO was arranged to help with up-front costs, and two administrative positions, a billing person and a medical administrator, were funded by Exxon to help with the increased load. A revenue shortfall was still experienced and there was an increase the patient bad debt percentage. This is attributable in part to increased treatment of individuals unable to pay (unemployed individuals who came to the community in an attempt to obtain oil spill related work), and care of individuals misrepresented themselves as being employed by VECO or Norcon.

Emergency Medical Services

The Emergency Medical System (EMS) in Seward is run by the Seward Volunteer Ambulance Corps (SVAC) under the auspices of Seward General Hospital, and operates its ambulance service out of the Seward Fire Department facility. SVAC makes approximately 200 ambulance runs per year, and the number of runs per month varies seasonally. Overall there is a natural increase of runs of approximately 25 runs per year.

Of the approximately 16 volunteers who comprise SVAC, none went to work for VECO as Emergency Medical Technicians (EMTs), but the services of two were lost to the community during the cleanup when they took cleanup jobs in other capacities outside of the community. Although the EMS level of service was not compromised by a drain off of trained personnel (according to regional training personnel, Interior EMSs lost significant numbers of people to oil spill work, creating service difficulties through significant portions of the state), there were service difficulties caused but inefficient interactions between SVAC and VECO EMS efforts.

SVAC has a range of personnel from EMT Is (the minimum standard for patient care) through EMT IIIs (with advanced cardiac life support and drug/IV administration capabilities). (SVAC also has Emergency Trauma Technicians (ETTs), but their roles are limited to ambulance driving and other non-patient care roles.) Patient care protocols, obviously, vary with level of training. SVAC EMT IIs and IIIs, like all EMT IIs and IIIs, are required to operate under standing orders of a physician that cover the conditions and situations for the use of specific care techniques and types of medication to be administered. SVAC EMTs are supervised through the local hospital, but VECO EMTs were not. VECO standing orders were through a physician stationed in Valdez, and as a result there were some difficulties in continuity in patient care due to a lack of common treatment orders. The VECO EMS system did not operate on an even level during the cleanup and, according

to SVAC personnel, the VECO supervising physician quit one and a half months before the end of the cleanup. This meant that all VECO EMTs in the Seward region had to function only at an EMT I level, regardless of their level of formal training.

According to one SVAC leader, there was initially no communication between SVAC and VECO EMTs. SVAC interactions with the VECO system were limited in any event; mostly SVAC personnel were called upon to transport packaged and stabilize patients to the hospital from transportation points where they were handed off by VECO personnel: the dock, the airport, and the Bear Lake float plane area. VECO EMTs would not inform SVAC of what was coming and would expect a quick and appropriate response when a more planned response would have been possible. At times SVAC responded to calls with a crew composed of EMT Is, when IIs or IIIs would have facilitated care, but they were not requested.

There were other difficulties integrating the Seward EMS with the VECO effort. Normally the SVAC service area (in addition to a considerable land area) extends out into Resurrection Bay "as far as needed" and in the past SVAC personnel have responded to calls as far away as the village of Chenega Bay. During the oil cleanup, however, VECO wanted to handle all EMS calls on the water (and on the beaches) outside of the city limits that were connected with cleanup work. Further, SVAC was not involved in any planning or EMS coordination for spill cleanup activities. In one instance, there was a call where no VECO EMTs were available so SVAC responded out onto the Bay. When the responders returned with the patient to shore, the VECO EMT arrived and began asking questions that SVAC personnel took to be in violation of patient confidentiality, and then "they wanted to get in the back of the ambulance and tell us how to run things there." This precipitated a sharp disagreement. It was the opinion of one of the leaders of SVAC that VECO was in the process of reinventing the EMS system and it was not appropriate for SVAC to change the local EMS system for an entity that was only going to be in town for a few months -- especially when the SVAC system had served the community for 30 years or so.

Communications were eventually improved, and VECO provided radios with common operating frequencies to SVAC, but according to an SVAC official, "most things had to be worked out at the individual EMT level" to get them to call ahead, coordinate efforts, and so on. Seward EMS personnel were careful to point out that on the individual level VECO EMTs were caring, good EMTs, but that the system they were operating under made things difficult.

There were problems with patient billings for the ambulance service. VECO would be billed for everything connected with care of its employees, and apparently they were not careful about collecting company identification cards of those who they laid off. As a result, SVAC as of February 1990 still had approximately \$4,000 in outstanding billings unresolved, but were confident that accounts would be squared in the near future.

One of the positive spin-offs of the oil spill for SVAC has been an increased interest in volunteers upgrading their level of training. According to and SVAC leader, at the time of the spill, SVAC had 4 or 5 EMT IIs, and since that time an five more volunteers have upgraded from level I to level II, which translates to a higher level of care for the community.

THE SOUTHERN KENAI PENINSULA: REGIONAL OVERVIEW

For purposes of this report, the four communities examined below, located on the Southern Kenai Peninsula, are clustered together into one region. There are solid geographical and political reasons for doing so. Besides these communities being in close geographical proximity to one another, they are all located within the boundaries of the Kenai Borough and were all members of the Homer Multi-Agency Coordinating Committee (MAC) during the Exxon Valdez oil spill crisis period.

However, these four communities are distinctly different from one another in a number of significant ways. The city of Homer is the only community located on a highway and accessible by car. The other three communities are remotely located from the rest of the Kenai Peninsula proper. Seldovia is only ten minutes by air from Homer but has one tenth the population of the latter with a significantly greater proportion of Natives (one third). While Seldovia's economy is somewhat dependent on tourism, it is by no means as dependent as Homer is.

The villages of Port Graham and English Bay are located approximately twenty minutes by air from Homer and ten minutes by air from Seldovia. These two villages are predominately Native and contain roughly half the population of Seldovia. In addition, the economics of Port Graham and English Bay are not dependent on tourism. If one were to imagine a continuum based on the dependence of subsistence foods the two Native villages would be on the higher end of dependence, Seldovia would be more in the middle and Homer would be on the lower end. Not only are the residents of Homer considerably less dependent than the other three communities on subsistence activities, they have a more diversified economy that makes them less vulnerable to a deficit within any one sector of their economy. The economy of Homer is based on commercial fishing, tourism, government and private sector employment, and agriculture.

It is instructive to compare these four communities according to three other analytical dimensions: (1) types of exposure to the oil spill; (2) types of exposure to the cleanup effort and (3) the psychosocial impacts of the spill. For example, even though it may be argued that Homer is the economic and political hub of the region and was the center of the containment and cleanup activities, it was the community least oiled by the spill. The communities of Port Graham and English Bay, the most heavily oiled by the spill, were located the farthest from the main response effort. In regard to the exposure to the cleanup effort, all four communities were exposed a fairly significant degree, though in different ways. Finally, the psychosocial impact on the communities was significant. However, culture remains an important consideration for understanding the impact of the Exxon Valdez spill on communities. While it should be stressed that the psychosocial impact of the spill disaster is severe in all four communities, it is important to remember that different cultural groups are likely to be affected in different ways as demonstrated in the community analyses below.

City of Homer

Homer is a first class city with a population of 3,500 people, located on the southern tip of the Kenai Peninsula. The city is at the end of the paved highway for the Kenai Peninsula and is reachable by car, plane, and boat. The community has a small boat harbor and is economically dependent on commercial fishing, tourism, and recreation. The economy is also based on government and private sector jobs, agriculture, and animal husbandry.

Response Effort

When the spill first occurred most residents thought there was little chance the oil would reach their shores. For a time, this perception was reinforced by NOAA's assertion that only small amounts of oil would ever reach the Gulf of Alaska. As time passed more residents became skeptical of both NOAA's and Exxon's assertions that the community had nothing to fear. As reports of the oil moving south began to appear, many residents became concerned about their beaches and their economic livelihoods.

During the first month following the spill, the community was reportedly "highly emotionally charged" and on the "verge of violent rebellion." While the community seemed quite upset over the events of the spill itself, many people channelled their concerns into constructive actions. One person, who thought the community should prepare for what looked like the inevitable, organized over 100 fishing boats to stand by to protect the surrounding waters. Despite pleas from both elected officials and private citizens, Exxon did not, according to some sources, take seriously the threat to the community and did not come to Homer to meet with officials and the public to discuss a response plan. Then on April 15th, an oily sheen entered Kachemak Bay and it became evident that the entire region was in peril.

By the third week in April, fishermen voluntarily cut logs and constructed booms. Following Seward's lead, Homer and the surrounding communities formed a Multi-Agency Coordinating (MAC) group. The Homer MAC was formed with representatives from Homer, Port Graham, English Bay, Seldovia, the Kenai Peninsula Borough, U.S. Fish and Wildlife Service, Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, Chugach Alaska Corporation, Alaska Department of Emergency Services, and the North Pacific Fisheries Council. Once the agency was established its first priority was assessing what needed to be protected. As one local official explained, it became clear almost immediately that they did not know what they were doing. They discovered that boom, while it can be effective, it is vulnerable to penetration from high winds and fast moving tides. Exxon was hesitant, according to several sources, to send a representative to the community to meet with the MAC members. The mayor stated that only after exerting public pressure did Exxon and Coast Guard officials attend a public meeting held in Homer. After this meeting Exxon apparently began to make some commitment to help establish a cleanup response. The MAC team established as a first

priority the need for 30,000 feet of boom. Exxon claimed they could not provide the boom because it was not available, but the citizens of Homer and Seldovia called suppliers around the world and located boom for sale. Some officials claim that Exxon stated that boom was not available because they did not want to buy it, but merely wanted to rent it. The MAC group succeeded in getting money from Exxon and within two days ordered and received five thousand feet of boom.

The public perception of many Homer residents was that Exxon was dragging its feet. Some felt betrayed by Exxon's claim that boom was not available when in fact it was readily available. Citizens' groups lobbied state and federal officials to have Exxon eliminated from the cleanup process. When their attempt did not succeed, one MAC member attempted to make a citizen's arrest of an Exxon official at a MAC meeting claiming that Exxon had violated a federal law by providing false information about the availability of boom materials.

By the third week in April, a severe storm allowed oil to penetrate the boom that was set out to protect the bay. Within a couple weeks after the storm, globs of oil appeared on the Homer Spit. Other areas of the bay were more severely affected. Places like Gore Point were oiled repeatedly. The MAC group demanded, without success, that Exxon clean up these heavily oiled areas. Finally the Coast Guard and DEC demanded an explanation from Exxon as to why they had not cleaned them. One individual employed with the National Park Service organized a small, volunteer effort to clean a beach near Gore Point. The attempt was so successful that he eventually resigned from his job and began to organize a volunteer effort that was supported in various fund-raising drives by Homer citizens. In September, after Exxon ended its cleanup operations, this gentleman organized volunteers to clean up a cove. Other volunteer efforts in the community included the Homer Emergency Animal Recovery Team (HEART); the Otter Center, The Bird Center, and the Homer Area Recovery Coalition (HARC). Exxon helped fund some of these organizations.

Many individuals, either elected officials or people who actually worked on the cleanup crews, complained, as did many people in Seldovia, English Bay, and Port Graham that Exxon actually hindered their own cleanup effort. Because Exxon was encountering great difficulty in disposing of the waste collected, they began, according to some witnesses, "ordering" cleanup crews to collect less oil from the beaches. Shovels were replaced with trowels and cleanup crews were ordered to work more slowly. As word of this tactic spread throughout the region many individuals became enraged over Exxon's behavior. A number of elected officials and residents allege that Exxon's focus was a public relations effort rather than cleaning-up the spill.

Local Government

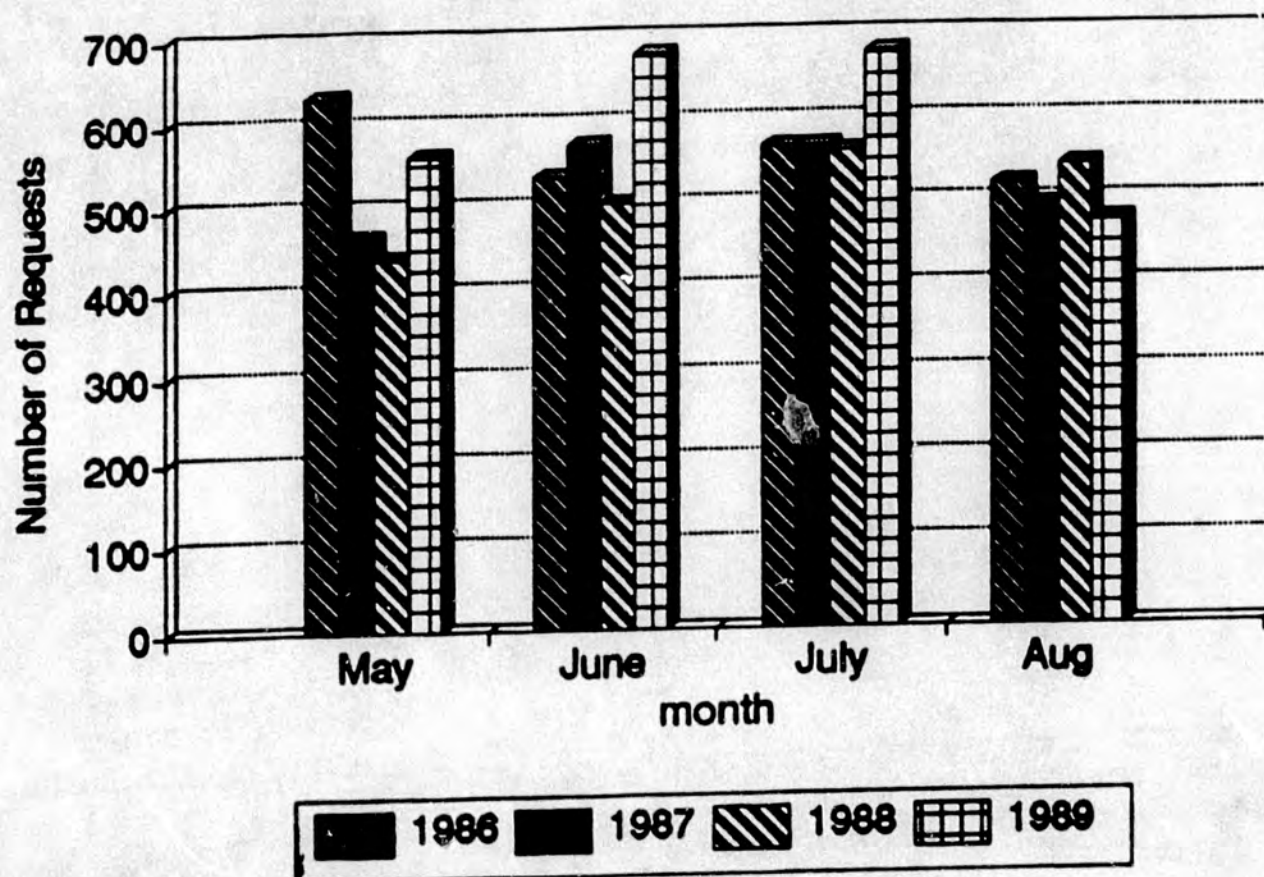
According to the mayor, the city relied a good deal on the Kenai Peninsula Borough (KPB) for maintaining communications with Exxon. Both the city and the MAC team did have direct communication with Exxon and VECO as the response effort developed. The point many emphasized was not the lack of communication with these groups, but the failure of these groups to respond to requests.

To varying degrees the spill placed excessive demands upon municipal departments. While the public works department and the fire department representatives state that the spill had little impact on them directly, the acting city manager stated that the former city manager and his staff experienced some increase in demands. The finance department experienced an even greater increase in demands. The mayor stated that his work load doubled as a direct result of the spill. City Hall, where both the city council and the MAC team met, experienced a great increase in the use of its facilities. The presence of the MAC group increased numbers and activity of the media representatives and state and federal officials in the building became a major distraction to the employees. For instance, the planning department was located across the hall from the MAC meeting room and suffered constant interruption from the hall activity and the press asking to use their phones. According to one employee, productivity declined by one half as a result of all these intrusions. The harbor master reports that his job increased ten fold during the summer. His primary concern was to make sure no bottle necks occurred. Moreover, he had to make room for VECO and Exxon and provide them with electricity. Three additional people were hired to deal with the spill. These additional harbor aides spent most of their time cleaning up the extra garbage created by the influx of people attached to the spill cleanup effort.

Because of the influx of outsiders, both the traffic and the crime rate increased. Police personnel were required to work overtime to deal with these increases. However, the police chief asserts that the majority of over-time resulted from having to provide security for the V.I.P.s that were frequently in town. In order to meet the increased demand caused by the oil spill, the police department had to hire three additional temporary personnel as well as a couple of permanent positions. According to the police department there was an increase in domestic violence and several racial incidents between Natives and non-Natives occurred during the summer and fall. During the month of July there were also several protests against Exxon that required additional police coverage. The total requests for police service rose significantly during the months of June and July of 1989. The following figure illustrates this phenomenon in comparison to the past three years. The magistrate's office was also severely affected as a result of the influx of strangers to the community and the increase in crime. The magistrate stated she was often on the bench until 10 or 11 PM at night and conducted arraignment proceedings almost every weekend. The increased caseload also made it difficult to conduct felony trials because of the shortage of available

Homer Police Statistics

Total Requests for Service, 1986-1989



courtroom space. The magistrate contended she was able to provide good service in spite of the extraordinary circumstances, but the court did fall behind in issuing bench warrants to pay fines. The demand on the court was compounded by the resignation of a judge whose replacement was not sworn in until the fall.

While few city employees resigned in order to work on the spill the acting city manger did state that the additional stress placed on municipal employees was, in part, responsible for the resignation of both the former city manager and the finance director.

The ineffectiveness of state and federal agencies due to overlapping jurisdictions, was, as in many other communities, a common complaint. One official stated that the Coast Guard asserted they were in charge because their jurisdiction included only navigable waters and adjacent beaches. However, the DEC had concerns that conflicted directly with those of the Coast Guard primarily because they felt responsible for all environmental concerns. For example, this official reported that the Coast Guard would tell Exxon to work on a specific beach, and when Exxon was later questioned as to why they had failed to follow through, Exxon would cite the fact that DEC forced them to leave because they didn't have the proper sanitary facilities. Once they secured the proper facilities and returned to the assigned beach the Coast Guard would suggest that they use four wheel vehicles to be more efficient. Exxon claimed that the Department of Natural Resources (DNR) would then intercede and say they didn't allow motorized vehicles on the beach. "It was like that all the time, just one thing after another. They [Exxon] continually ran into those kind of problems." However, the official pointed out that in a "broad sense" he would characterize the problem as a lack of efficiency by Exxon and various agencies coordinating their efforts.

The educational facilities did not escape impact either. The Kenai Peninsula Community College was affected in a number of ways. Several of the students dropped out during the last week of the semester in order to work for VECO. This generated a lot of paperwork for the college because it has a small clerical staff. Also, one of the faculty members was hired by Exxon, forcing the cancellation of a course. The spill affected the college in other ways as well. The summer elder hostel program was adversely affected. Many of the people who normally taught in the program were not available during that summer because they were working on spill-related activities. The major resource center for that program, the Marine Coastal Center, stayed closed during the summer because of the spill. The spill affected fall course offerings as well because many of the faculty members were hoping to work on spill-related activities after September and were reluctant to commit themselves to teaching in the fall.

The facilities of the high school and the junior high school were utilized in a variety of ways. The auditorium of the high school was used for community meetings both during the day and the evening for public meetings with VECO, Exxon, the media, the MAC team and various visiting dignitaries. Forty-five agricultural students were displaced from their lab when it was converted to a bird rescue center. At the junior high school the pool was

drained and used for the otter rescue program. One of the administrators stated that the spill and related activities were so traumatic that many of the staff, faculty, and students spent a considerable amount of time discussing it. It was reported that the number of people who frequented the school in connection with the spill, including the media, created a constant distraction for the students. Approximately a half -dozen students dropped out in order to work on newly created jobs in the community. On a few occasions there were problems with adolescents who had come to Homer with their parents who were looking for spill-related jobs. At times these adolescents would loiter on school property and in a few instances were suspected of dealing drugs.

Changes in Community

Once VECO and Exxon took over the cleanup effort they began hiring local residents and leasing boats from the Homer harbor. When these jobs and boat contracts became available there erupted within the community highly charged moral and political debates about whether one should work for Exxon. There seemed to be, among some residents, a moral sentiment that working on the cleanup effort for the big companies was tantamount to advancing the oil companies' interests. Several individuals made an analogy between VECO workers and the French Vichy collaborationists. Many still pride themselves on working solely on volunteer crews. One informant stated that in the future when their kids ask them "what they did during the war," those who worked for Exxon will feel a sense of "shame." Deep-seated arguments broke out between friends and relatives about this moral issue. The arguments that disrupted families and ended friendships seem to linger among many residents until this day. One person reported that she had a friend who remained highly critical of those who worked for VECO. She pointed out that this friend had made a considerable income after the spill working as a consultant for the Department of Fish and Game and that it was somewhat hypocritical of him to criticize others for making money off the spill. The value judgements that both she and her friend made are illustrative of the current moral discourse in the community. Other individuals who worked for VECO contend that their critics are unrealistic and morally "smug." There are those who assert that working on the cleanup crews helped to restore the environment and that people have a right to be paid for their labor.

An enormous amount of resentment, bitterness, and jealousy centers around those who profited from working for VECO. Critics often pointed out the "unfairness" of those who "sold-out"; they profited from their behavior and gained an unfair advantage over those who stood their moral ground. Those profiting were fishermen who were enabled to buy a new boat, a second boat, or more sophisticated fish location equipment; often those very individuals before the spill had been the less successful and the less knowledgeable fishermen. The unfairness of this irritated many people who were concerned about the disruption of their community. Another example of this disruption would be the acquisition of a considerable amount of money by a teenager, a person normally without financial

advantage or power. In part some of these issues are touched upon by the following comment:

"There was a situation where a whole lot of money was thrown around and a whole lot of people's values were turned around because of that, or they found out what their real values were; found out what their neighbor's values were. There was a lot of reality thrown around that people weren't ready to deal with. There was a lot of sense of violation in it. It started at the level of the community versus the oil company and very quickly ended up filtering down to our neighbors and friends, you know, the individuals within the community."

Many people allege that this factionalism and inequity resulted from an over-all strategy of Exxon. Many local government officials and residents assert that Exxon felt threatened by the sense of community solidarity among the residents and therefore set out purposely to create factionalism and social disruption by "spreading" money around the community to divide the opposition. Many individuals felt resentment that Exxon took over their volunteer cleanup effort, and because of the way in which this was done, they felt that the oil company had invaded their community. Others contend that Exxon threw its weight around upsetting the local government and the Borough MAC group to the point that the community lost control over central issues. A small minority felt that Exxon demonstrated itself to be more powerful than the federal government. One local government official expressed it this way: "Your appeals are gone once you find out the oil companies are bigger than the federal government."

While many spoke of how well the Homer community came together, uniting various factions and political camps prior to the take-over of the cleanup by Exxon, they bemoan the collapse of that solidarity after the arrival of the oil company. Some point with pride to the residual sense of community solidarity which led to the organizing of the volunteer effort in Morris Cove. For many, this exception demonstrated the sense of volunteerism and independence which many Homer residents cherish. The volunteer effort enabled them to preserve their self-image.

The majority of those responding felt that the community had changed as a result of the spill. Some say the experience hardened people and made people more suspicious of one another. Others spoke of how the quality of life had changed. Many people said that it was as if the community had been "violated" or "raped" and that it would take a long time to recover. One person stated, "it is not quite the nice little place it was to live before [the spill]." Some felt that the community was politically more aware and that people were now

politically better informed about state and federal politics. Others spoke of the community in terms of the environment and said that the environment has been "spoiled."

Way of Life

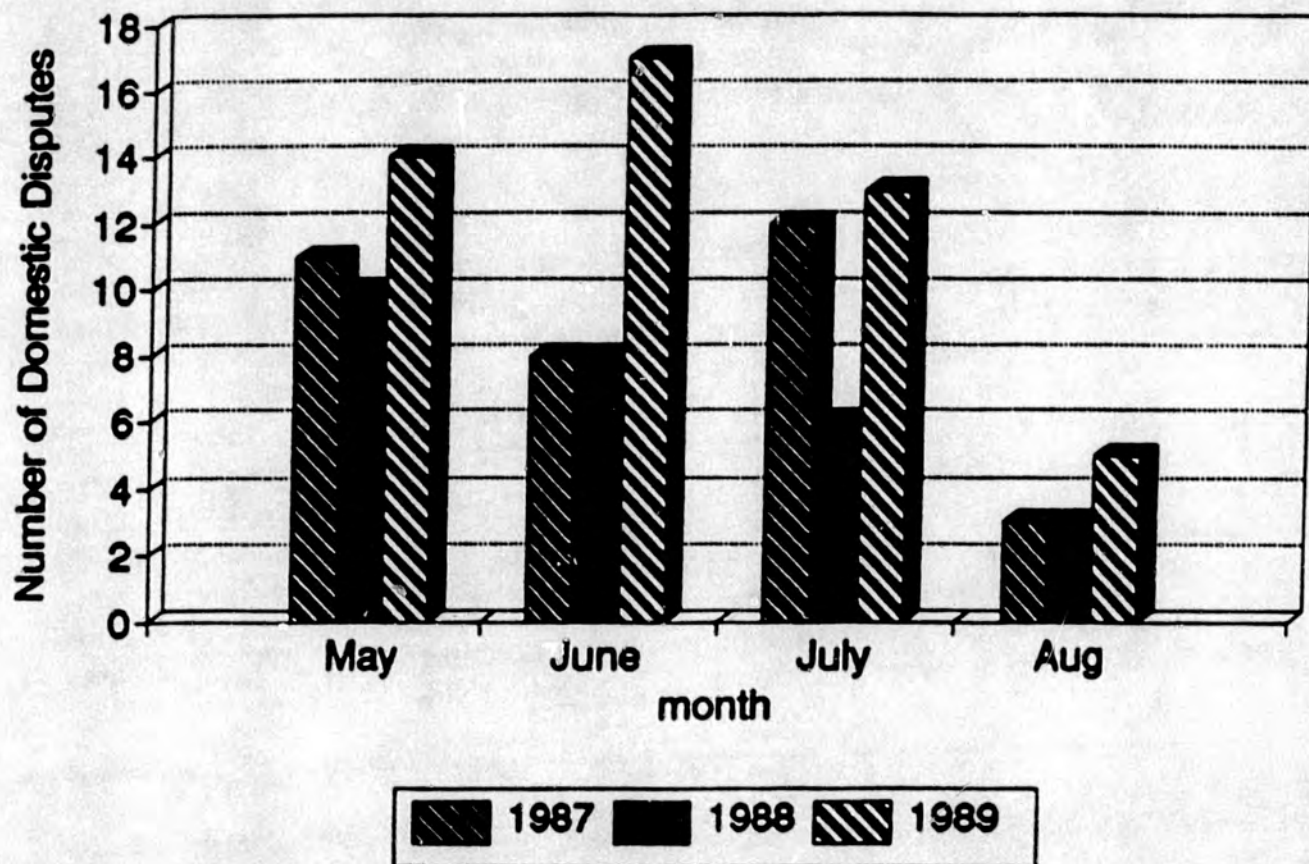
Because commercial fishing was suspended, the normal seasonal fishing cycles were disrupted along with many of the seasonal tourist and recreational activities. Several informants said that a number of small businesses were so adversely affected that they were going out of business. The artificial economy created by the influx of people and the VECO salary scales resulted in an increase in cost of rents, food, and transportation. Many small businesses were reported to have a difficult time hiring workers because they could not compete with VECO salaries. A recurrent complaint made by many residents was that the spill disrupted their normal summer recreational and vocational activities. Many stated that they were looking forward to the resumption of a normal summer.

Family

While child-care was often cited as an issue in many communities, it was mentioned less as a central issue in Homer. In fact, the director of the largest child-care facility stated that during the summer there were actually fewer children enrolled in her program than during the previous winter and spring. Nonetheless, the effects on many families will be discussed below in the section on mental health. According to the magistrate's records, both separations and divorces rose significantly in the fall of 1989 over the previous two years. Individuals stated that they knew of many couples whose relationships suffered because of the stress of the disaster. As the following figure indicates, domestic disputes, according to the Homer Police Department statistics, increased during the months of May through August 1989 signaling a strain in domestic relations. That stress was due to increased financial problems, uncertainty about the future or long absences from the home because one, or both, of the spouses were working on spill-related activities.

Homer Police Statistics

Domestic Disputes 1987-1989



Mental Health

By all accounts, the psychological effects seem to be significant. All three agencies that provide mental health services in Homer reported significant increases in their case loads. The Cook Inlet Council on Drug and Alcohol Abuse stated that the number of participants in their program rose from a total of 153 in 1988 to a total of 217 in 1989 (a 41% increase; DWI arrests soared proportionally). Shortly after the spill the center began administering a new stress scale indicator to all their new clients. Since the scale had never been used in the community before, it was difficult to tell if there was any significant increase. However, the majority of people who were tested scored in the 150-300 range which means those individuals are at a higher risk of incurring health problems. Some people they screened scored as high as 600. The agency's intake participant level for 1990 remains abnormally high. This past January alone the agency handled more ASAP screenings than they did during the entire first quarter of the previous year.

Prior to the spill, the trend at the Homer Mental Health Center was toward program development for chronically, mentally ill adults and children and emotionally disturbed children. After the spill the services at the center declined but in October services started to increase as they were asked to do more in the community such as providing educational services at the schools and working with the division of family and youth services. Around that same period of time they also had more requests for family interventions which centered around problems between spouses or children acting out. They also saw an increase in drug and alcohol abuse. Prior to October of 1989, the clinic delivered between 250 and 275 direct client contacts in an average month. By November that number increased to 500. Since then it has delivered, from 475 to 525 client contacts monthly. To meet this increase in demand they have had to prioritize their services and give preference to the severely disabled. For instance, people with a psychosis problem were given priority over someone with a family problem.

Fortunately, around the same time, they were given additional funding from the state to provide additional services. This additional funding allowed them to send a part-time counselor to Seldovia and place a counselor in the school. Measured in terms of the direct client contacts, the staff of the Homer Mental Health Clinic worked much harder than usual and were exposed to evidence of the social impacts on their community from the oil spill.

Moreover, prior to the spill the mental health center flew two clinicians a month to the nearby Native villages of Port Graham and English Bay. However, after the spill both these communities requested that non-Native outsiders stay out of the villages for a period of a couple of months because villagers were wary of outsiders. The same request was made of the Southern Kenai Women's Center. Although the center complied with the request they were able to maintain telephone contact with their Native clients.

The Southern Kenai Women's Center, unlike the Homer Mental Health Center, experienced a dramatic increase in client load almost immediately. Most of this increase is attributable to domestic violence. One of the counselors pointed out that the amount of stress most people in the community experienced was significant and that domestic violence was closely tied with the ability to deal with stress. According to the director of the center the counselors saw a significant and alarming increase in "the degree of lethality" of these cases. Moreover, they saw what they believe to be an acceleration of the domestic violence continuum in which people with little previous history of violent behavior apparently became very violent. Reportedly, a significant number of these domestic violence cases included the use of a weapon such as a knife or a gun. In June there was a domestic violence-related death which shocked the community. As a result of this increase, the case load almost doubled for a time. While in previous summers the center has had an increase in its transient client load, the summer of 1989 saw fewer transient clients. Like the mental health center, the women's center had to prioritize its services and cut back on its outreach, educational programs, and other services in order to deal with the increase in crisis intervention cases. Unfortunately, during this same period the center lost about 40% of the volunteers it relied upon for maintaining their 24 hour crisis line and shelter program. Over-time for the full-time staff increased by about 25%. This overtime, coupled with the staff's own anger, grief, and frustration over the oil spill and its impact had a significant toll on the staff according to center informants. The director noted that by the late fall all the staff experienced some form of burn-out at one point or another and that this stress was still being felt by early spring 1990.

Medical

The South Kenai Peninsula Hospital was affected by the spill and the cleanup effort. They experienced an increased patient load especially in the emergency room, the laboratory and the X-Ray facilities. This increase in cases was compounded by a loss of much their volunteer staff and by a shortage of an adequate nursing staff. In keeping with the national trend, the hospital had difficulty hiring nurses prior to the spill itself, but this difficulty was exacerbated by the spill. The hospital found it nearly impossible to recruit nurses because of the high VECO salary scale with which they could not compete. Moreover, they could not find people willing to do gardening and maintenance work during the summer. The gardening didn't get done, the lawn didn't get mowed, the buildings didn't get painted and the parking lot didn't get cleaned. Furthermore, they sometimes experienced difficulties and delays in getting medical supplies delivered because most shippers were excessively busy shipping supplies for VECO. Nonetheless, the director maintains that patient care itself did not suffer.

Like many other medical facilities, the South Kenai Peninsula Hospital witnessed an increase in upper respiratory infections, hypothermia, accident injuries, burns, and, on at least one occasion, exposure to toxic fumes. Most cases of these health problems were

directly related to the oil spill. The hospital serves not only the community of Homer, but the communities of Port Graham, English Bay, Seldovia, Halibut Cove, Ninilchik, and Anchor Point. According to the former acting director, the Native communities expressed a lot of concern for their health since many of them were working on cleanup crews and their communities were more heavily oiled. Many individuals were concerned about toxic fumes and the possible contamination of their subsistence foods

Changes in Personal Experience

A great many people reported changes in their lifescape in one form or another. Many said that their experience with the oil spill has made them question whether various levels of government always operate in the best interest of the public good. Others questioned whether the risks of modern technology are worth the potential long-term risks. Coupled with that doubt, many of these same people questioned the reliability of the scientific community whether it be NOAA, U.S. Fish and Game, or Exxon scientists. Other individuals stated that their experience in dealing with both Exxon and state and federal agencies as well as residents in the community made them more suspicious of everyone in general. Some expressed their suspicions in terms of being less willing to trust people and more skeptical about people's statements. Still others spoke about how they perceive the natural world in a new light - as more vulnerable, "tainted" or "ruined." Finally, there were people who stated there were no significant changes in their worldview.

City of Seldovia

Seldovia is an unincorporated first-class city located on the southern tip of the Kenai Peninsula. The small community of approximately 450 people is almost totally surrounded by water. The land area of the city is less than one half square mile and is not connected by road to the rest of the peninsula, but can be reached by air or by the Alaska Marine Highway system. The ethnic composition of the city is approximately 70% non-Native and 30 % Native. The Native population is composed of Eskimo, Aleut, and Athabascan ethnic groups.

The majority of Seldovia's economy is based on commercial fishing and processing. According to a 1986 Alaska Department of Fish and Game report, slightly more than one third of its households are directly involved in commercial fishing. Since the 1960s, logging has played a small role in the community's economy. There are two hotels and two or three restaurants which provide employment opportunities and support a small, growing tourist industry.

The waters and shores adjacent to the community were oiled to varying degrees. Two places in particular were heavily oiled - Morse Cove and Tuka Bay. Both areas are considered extremely important to the residents. Many of the people interviewed described the damage to the environment "severe" and "devastating."

Response Effort

The residents of Seldovia initially responded to the spill with "shock," "anger," "grief" and "outrage." Early on, as the spill advanced in Prince William Sound, residents met with both the Coast Guard and Exxon and expressed their concern for the establishment of preventative measures and a response plan. While many community members were sure the oil was coming to their community the Coast Guard assured them that the oil would not approach their shores. Both the Coast Guard and Exxon were said to be unresponsive to the pleas for help. A number of community members became anxious to establish a response plan in the event that the spill would eventually reach the waters surrounding Seldovia. Emergent leaders concerned that the city had not prepared itself properly for the likelihood of such an event approached the city manager during the first week in April. The city manager responded by appointing the fire chief as the Emergency Operations Officer and an Emergency Operations Center (EOC) was established. Concerned community members established a resource data base. Within two days after the meeting with the city manager, a public information meeting was held. The community decided not to wait for outside help and began to organize a volunteer effort to protect their shores and waters. One hundred and fifty people signed up as volunteers. The group composed a resource list of people, equipment, boats, office space and warehouse space in preparation for their response effort. The Director of Public Works was chosen as Seldovia's representative on

the Homer Multi-Agency Coordinating (MAC) Committee. The group also decided that they needed to learn more about bird and mammal recovery techniques.

The day after the meeting Seldovians began searching their backyards and storage areas for materials that would assist them in their effort. Fishermen met to discuss the waters and tides surrounding the community. People began to volunteer their skiffs and boats as vessels that could be used to place booms. Because they were told there was no commercial boom available, the residents quickly taught themselves of how to construct boom and what kind of materials could be used in their construction. The Coast Guard had originally offered to provide tyart and booms, but the community never received the materials. Complex engineering tasks were solved by common citizens who had no previous experience in the construction and deployment of booms but took it upon themselves to acquire the technical expertise required to design and build boom. The residents formed into units with each unit responsible for a specific task. Booms, logs, cables, and other materials were gathered by loggers and heavy equipment operators. Women formed work groups to sew tyart for boom material. The school set aside two days for the teachers and students to volunteer their time and labor in order to assist in the construction of boom and conducting shoreline impact surveys. Traditional gender roles were abandoned as both men and women unloaded boats, ran cranes and constructed boom and worked in the warehouse. An incident response team arrived from Colorado to assist the volunteer efforts. When the team left five days later they pronounced the response plans and efforts as "workable." These plans were later ignored by Exxon and VECO.

In a public meeting attended by both the Coast Guard and Exxon, the city received a promise from Exxon that they would give them \$15-20,000 in support of their effort. A few days later VECO was reported to have visited the community and said that they thought the city had a worthwhile project and that they would like to take over the response effort. One informant reported VECO came in and stated they were going to take over the response operation in Seldovia whereupon they gave the response office a telephone number in Homer and left promptly. In the midst of the construction of booms the project came to a sudden halt because the VECO representative in Homer would not return their calls. Moreover, the materials VECO promised to send never arrived.

Another resident, who worked closely with the response effort, stated that "once VECO took over it took two weeks to get the same items, because of the paperwork that you had to fill out." When VECO stepped in, there was already a workable structure in place and a plan that had been approved by the incident response team. But VECO, according to several sources, was ~~not~~ interested in the organization or the plan. They replaced the grassroots organization with a strict, bureaucratic structure that lacked faith in the ability of the residents and ignored local expertise. One Seldovian stated that "they were not interested in what we were doing. Actually, they would liked to have had us disappear."

VECO and its operations were viewed as "disruptive" by some residents who criticized their lack of planning, slowness, and impact on the community social structure. Thus, some saw the cleanup as more disruptive than the actual spill itself.

While Seldovians suffered little from the influx of strangers from the outside, there was a considerable influx of cash from the cleanup effort. The infusion of this money is viewed as both positive and negative. For one thing, as stated above, some residents thought it was morally wrong to work for VECO and resented some of their fellow citizens for doing so. Many said they were insulted by being offered money for doing what they were willing to do as volunteers. There were several who thought the introduction of such large salaries created strife and dissension among community members. Many stated that prior to the spill there were several factions in the community such as "bar" people and "church" people and fishermen versus professionals and those who lived "out the road" as opposed to those who lived in the community. According to these people, the response effort united all these groups and promoted a sense of solidarity which that was unprecedented. These people felt VECO's take over of their cleanup effort and the introduction of large sums of money broke down the sense of community solidarity and created additional factionalism that did not exist prior to the spill. Others were less critical and said that VECO and Exxon brought a necessary economic boost to the town which helped off-set the financial losses incurred by the shutting down of the fishing industries. One individual stated that prior to the spill the town was "poor" after the oil spill and offered few job opportunities. According to him, after the spill things changed for the better: "During the spill period it was the happiest I saw this town. All the dogs were not fighting over one bone. There were lots of bones to chew."

Local Government

The city government was affected by the increased demands on its offices and personnel. The unsalaried mayor, the city manager, the police chief, the fire chief, the treasurer's office, the harbor master's office, and public works were especially hard hit. The heads of all these departments reported that they worked numerous, unpaid hours of overtime. As mentioned above, the fire chief was appointed the head of the emergency response effort and until VECO took over the response effort his duties were severely affected. The new city manager, who assumed his position in mid August, stated there was "widespread disruption" in the normal running of municipal affairs. The public works department was also hard hit since it normally only has a couple of employees and the director was appointed the city's representative on the MAC team in Homer. His appointment left one person to do all the work. The public works department had at least three projects they had to complete during this period. The department faced additional problems because all the available adult labor was committed to the cleanup effort. In order to continue with the projects, they had to hire teenagers as laborers. The replacement of the water and sewer lines was not completed last summer as they were suppose to be and is way behind schedule and at one point risked loosing its funding grant from the state. Even the library reported increased demands on

its services. One volunteer librarian complained that many parents would "dump" their children at the library when it was open because there was insufficient child-care. Moreover, the multi-room at the library, which also houses their office, was used by VECO and others making it difficult to conduct business and creating "too much commotion for a library atmosphere." As hard hit as the city was by the spill, they were unable to attend the oiled-mayors conferences because the city could not afford to send its mayor to the meetings.

Furthermore, Seldovia was beset by political factionalism in the community and within city hall. Many people were critical of the city's failure to anticipate the approach of the spill and their reluctance to design a response plan. In this mood, several concerned citizens met with the city manager in the above mentioned meeting in an attempt to force the issue. It was not the elected officials that took the lead in organizing a response team but private citizens such as a local businesswomen, a fisherman, and others. The city manager became the focus of considerable criticism for allegedly playing old time politics and refusing to take a decisive stand. There were also criticisms of the use of the specially allocated spill monies released through the Borough Exxon fund. At the center of this controversy was the purchase of \$17,000 worth of computer equipment for the city out of funds that were designated to be used in the response effort. Many seemed to feel that the computer purchase was inappropriate and special equipment and supplies necessary for response to the spill should have purchased instead. By July, the manager resigned from his office. As of spring of 1990, the computer equipment remained a controversy within city hall where municipal workers squabble over which office should have access to the equipment. The city council members were also criticized for their lack of response. Four of six city council members were replaced in recent elections. There was also considerable controversy, which still simmers, over the rise to prominence of the head of public works in his role as a MAC team member. In Homer, this man was chosen by the Governor to represent the demands of the Borough communities to Exxon officials. The money this man obtained for the boroughs from his demands to Exxon almost elevated him to the role of hero in some people's eyes. His outspokenness and prominent role made him unpopular with some, especially in city hall. In a dispute with the city manager this person was fired briefly before being re-instated.

Even though the city experienced increased factionalism after the take over of their response effort by VECO they have been able to channel much of what they learned in designing and creating a response team and to preserve sufficient community interest and participation to form a regional oil response team and plan for future, potential spills. Save Our Sound (SOS) has gained widespread community support and has invited members of the nearby communities of Port Graham, English Bay, and Homer to participate in the formation of such a plan. Alyeska has offered to sponsor Incident Command System training and oil spill response training for team members. As of late February, 53 people have completed the Health and Safety for the Oil Spill Worker training course in Seldovia. Six people have passed the Coast Guard exam and another 16 people were training for it. While the plan

has not gained full acceptance among the Native communities it has been recognized by all the adjacent communities as a viable and important plan.

During the initial days of the spill period, the city of Seldovia experienced considerable frustration in communicating and dealing with Exxon officials. First, as already mentioned, the city was unable to convince Exxon of the real threat that the spill posed for the community. Later, when Exxon recognized the threat and began making promises to help, the city experienced more frustration. Not long after obtaining the special funds of \$15,000 for their response effort the response team realized that they were woefully under-funded and had already exceeded the allotted amount by several thousand dollars. The fire chief, who was placed in charge of the emergency response effort called the regional Exxon spokesperson and demanded that he come to town with his check book and give them the necessary money needed to cover the cost of the response effort. The Exxon official was told that if he failed to comply the fire chief would issue a warrant for his arrest. When the Exxon official was unresponsive the Fire Chief called the Governor's office. A state marshal appeared on the scene and the fire chief called back the Exxon official and stated, according to one witness, "I hate to be crass, but if you don't get your ass in town, checks in hand today, I'm going to issue a warrant for your arrest. Now I have the emergency power to do so, and it will happen!" When the official hesitated, the fire chief stated he would get back to him and then hung up. Five minutes later he returned the call with the mayor and a city councilman on a conference call. Once again he made his demand and hung up. According to the witness a half and hour later a chopper appeared with some Exxon officials. While it is uncertain what occurred in the meeting with city officials shortly thereafter, the fire chief resigned. The witness blamed this confrontation and the loss of the fire chief on the city's failure to support the community's effort.

Changes in Community

The introduction of VECO into the community eventually eroded the community-wide effort:

"The people were really put together in the beginning, because it was an all volunteer group . . . It was an efficient volunteer group and they worked hard, long hours and worked very well together. It was like the whole community really worked hard. When VECO came in and started offering money, there were some people who would not work for wages, or who would not take money for what they were doing. They didn't want to work for VECO therefore they didn't work . . . And that kind of started a division at that point, but I think even before then

there was this . . . undercurrent of anger at what was happening and the helplessness of not being able to really do anything."

There was also a pervasive belief in the community that Seldovia was not treated equally with other communities, most notably the city of Homer which received three full-time staff members for their oil spill response office. Some people also cited the fact that the Homer Mental Health program received funding that Seldovia did not. However, Seldovia did receive a part-time mental health counselor from the Homer Mental health Clinic. Many residents felt that because Homer was an outspoken and well known community they were given preferential treatment over Seldovia, Port Graham, and English Bay. The convening of the MAC team in Homer and the large public meetings which the Governor and state senators attended was cited as an example of the special importance of Homer as a political entity that received special attention.

Family

Many people in Seldovia thought children were the ones who suffered the most during the cleanup period. There is a wide-spread consensus on this among both men and women, professionals and laymen. Considerable stress was placed on families because people worked long hours and families were without mothers and/or fathers and often without either parent for long periods of time. As in many other communities, child-care became a difficult problem. A number of children went unsupervised for long periods. Moreover, there was considerable stress on the parent, whether husband or wife, that stayed home to take care of the family while their spouse worked. The community M.D. attributed at least a couple of divorces to the stress of the oil spill. Children were very concerned about the events in the community and frustrated by not being able to spend more time with their parents or be able to do anything to help the community. According to the principal of the school the children that suffered the most were the young children left at home alone. He stated that a significant number of children exhibited "cranky, acting-out behavior" at school. Some of these children required counseling which was provided by the mental health counselor from Homer who spent a good portion of her time at the school working with these children. The counselor stated that many children were disturbed by the uncertainty of whether they would be with their mother or father and their uncertainty over their future security in general.

Mental Health

Almost everyone interviewed emphasized the considerable stress they experienced during the first several months of the crisis period. A part-time counselor from the Homer Mental Health Center was sent to the community to assist those who felt most troubled by the spill.

While the bulk of her load consisted of children, she also counseled many adults whose depression and anxiety was often couched in terms of anxiety about the uncertainty of the future; the possible long-effects on the fisheries; the lawsuits growing out of the spill; worries about being able to continue to make payments on their boats; and the difficulty of having to take care of a family alone while a spouse worked long hours on the cleanup effort. Many clients simply stopped by to discuss their spill-related concerns and seek validation for their anxiety. Moreover, the counselor cited an increase in alcohol and substance abuse and an attendant increase in domestic violence and child abuse. When the interview with the counselor was conducted in March, she expressed concern over the termination of her emergency funding which was scheduled to expire in the near future. She expressed concern over her clients ability to receive help once her position was terminated since many of her clients could not afford the time and money to fly to Homer to receive counseling.

SKIAP, a non-profit agency that deals with drug and alcohol abuse among Natives in the communities of Seldovia, Port Graham, and English Bay suffered severe impairments on their delivery of services. All of their staff but the director and the business manager quite their jobs to work for VECO. Because it was impossible to compete with VECO pay scales, it wasn't until late August that they were able to begin to replace the staff they lost. The agency's activities were brought almost to a standstill during a period when their services were desperately required. Not only was SKIAP unable to adequately provide services, but they were severely hampered from applying for future funding and making policy decisions about the future.

Medical

According to the Director of the Seldovia Medical Clinic, the spill and cleanup effort placed minimal demands upon the delivery of services because most medical problems pertaining to the spill were dealt with directly by VECO. According to the director, the impact of the spill was more psychological than physical as far as his patients were concerned. Many of his patients could not talk about it without breaking into tears. He observed that a number of patients expressed excessive concern about their physical problems which was inconsistent with their diagnosis and seemed to indicate a general sense of anxiety and uncertainty.

Changes in Personal Experience

Many Seldovians from all walks of life stated that a primary reason why they moved to the community was that it was isolated and unreachable by road. For many of these people the isolation from the larger world had an appeal. Some individuals who chose to be even more isolated lived "out the road," where there are fewer neighbors and no electricity, running water, or telephones. The spill, and the events that followed, changed the perspective of many of these people. A number of people reported that once the spill occurred they

realized they could not totally escape from the world and its technological hazards, nor could they any longer afford to be politically apathetic. These people now feel that they have to be active politically on a local, state, and even global level. Many who were active in organizing the grassroots response are still active today either working with SOS or lobbying legislators in Juneau or considering running for local office. While encouraged to participate more in the electoral process, many expressed skepticism about the politics in general. Some people feel that the spill demonstrated how inept state and federal agencies are and how, for some, the federal government seems to be more interested in accommodating private industry than protecting the environment and serving the interests of the people. Many people spoke in terms of the community and its environment having been violated. Many more spoke of how VECO and Exxon literally came in and "took over" the community, particularly the spill response effort while ignoring the community's achievements and its desire to determine its own fate. Almost all the elected officials and department heads discussed the extreme levels of stress and how they "never wanted to live through another summer like that again." Amidst all this depression and skepticism, a sense of optimism could also be detected. People spoke of how the spill raised people's consciousness about the need to protect the environment and the need for Seldovians to become more involved in regional and state affairs. Certainly the organization of the SOS team is a positive example of this increased awareness and sense of responsibility.

Village of Port Graham

The village is located on the southern end of the Kenai Peninsula, approximately twenty four miles southwest of Homer and fifteen miles southwest of Seldovia. The community is accessible by boat or plane. A four mile trail connects Port Graham with the village of English Bay. Port Graham is a Native village with a population of approximately 195 people. The village lies within the jurisdiction of the Kenai Borough and is unincorporated. The governing body of the community is the Village Council. Like many villages, it has a mixed cash-subsistence economy. The residents rely primarily on commercial fishing for their cash income. There is a cannery in the village which is owned by the village corporation and leased to the Chugach Corporation. The cannery employs approximately 30-40 people on a seasonal basis. Other businesses in the village include two stores, a video-renting store, and a bed and breakfast. Subsistence activities are a significant part of the villages' cultural heritage and still play a vital role in the lives of most villagers.

Response Effort

At first, the residents of Port Graham, like other residents on the lower Kenai Peninsula, felt there was little chance the oil spill would directly affect their community. However, once it became apparent that the spill was headed for their shores they became quite alarmed. The mood of the villagers shifted dramatically. According to one observer, the residents were numbed by the news and normal activities were suspended: "People were in shock and no one knew what to do....there was a lot of fear." Many people asked outsiders what they were going to do if the spill should hit the community. Many people were greatly concerned about the threat the spill posed to their subsistence way of life.

A number of villagers who were concerned about the impact of the oil on chitons ("bidarkies"). So, before the oil reached the community, they got together and collected as many as they could. Once they were gathered, the bidarkies were washed, bagged and distributed to families throughout the village. Many wondered how many years it would be before they would be able to collect chitons again.

As in other villages in the North Pacific Rim, VECO and Exxon came into Port Graham and hired all adult residents able to work. The village administrator, the Village Corporation president, the VPSO and the village health aide were also hired to work for VECO. VECO leased the community hall and its kitchen facilities, as well as a small conference room. Phones were installed in the VECO facilities and a fax machine was given to the village by the Borough.

By the middle of June, Exxon began laying off most of the VECO workers in the village and curtailing cleanup activities on the Outer Coast even though there were almost 200 miles of coastline that had not been cleaned. One village official complained to the Coast Guard

that this "behavior is entirely unacceptable and unethical." Discouraged with the way the cleanup was going the Village Council president stated in a letter to Admiral Robbins, of the United States Coast Guard: "We no longer think there is any time to ask Exxon nicely to do anything. We feel that the Coast Guard should demand that Exxon take these immediate measures...It is clear that Exxon has a deliberate strategy to limit cleanup operations in the area."

Moreover, the Village Council became dissatisfied with both their "under-representation" on the Homer MAC team and their indirect communications with Exxon. The Council informed Exxon that a direct communication link between Exxon and the villages of Port Graham and English Bay should be established. The Council also objected to the cleanup of the Outer Coast area being directed out of Homer. While they thought it appropriate that Homer be the base of operations for the cleanup in the Kachemak Bay area, they thought it most inappropriate that cleanup and containment activities for the Outer Coast be directed out of anywhere other than Port Graham and English Bay. The Village Council pointed out that the villages were three hours closer to the outer coast than the city of Homer and that, given the expensive hourly charter rate for vessels involved in the cleanup and containment, using the village of Port Graham could save Exxon a considerable amount of money. They also argued that having the cleanup activities centered in Homer would be "detrimental" to Homer's tourist industries.

Along with the VECO organization came the influx of some outsiders. However, the influx of relatives hoping to get jobs on the cleanup effort may have had a greater impact on the community: because there is a shortage of housing, the villagers were forced to house their relatives. By September the majority of these outsiders left, but a significant number of families stayed on during the winter with the hope of getting jobs on the spring cleanup effort. This created somewhat of a hardship in the village, increased the school enrollment levels and created some discord among villagers.

Local Government

As mentioned above, much of the government infrastructure was hired to work for VECO. This placed a considerable strain on the daily operations of the government. The village administrator's assistant filled in for her while she worked for VECO during the day. The administrator stated that she often worked on the average of four hours each evening in order to devote her attention to village affairs.

Some villagers had serious misgivings about VECO hiring village officials. They allege that the normal operations of the local government and the delivery of services were adversely affected by the loss of these village personnel. Some stated that they thought that it was a conflict of interest for village officials to be working for Exxon. Even some of the village officials that worked for VECO admit that VECO's presence in the community was

disruptive. An example of the impact on services was cited by one official: the village normally hires someone to use the village truck to gather firewood and water. During the cleanup period they couldn't find anyone interested in driving the truck. This was a loss of an essential service since the elderly in particular are very dependent on such services. Moreover, the village had a public project going on their dam and could not get anyone to work on it. Eventually, outsiders were brought in to complete the task. Furthermore, the writing of grants was postponed or neglected because of the excessive demands on the village government officials. They had an ANA grant for a dock study that was suppose to be conducted during the summer but had to be postponed until the fall.

The village council felt that the spill and the presence of VECO was responsible for the loss of community control. Reportedly, they were split in their reaction when VECO came in and took over without going through the village council. Some alleged that Exxon and VECO lacked sufficient knowledge to deal with Native communities. The council wanted to have their contacts with Exxon through the Rim and have their communications filtered down, but the village president, who was on VECO's payroll, opposed the idea. Several persons stated that there was a lot of miscommunication with VECO and Exxon. Eventually, the village council, like that in English Bay, came to distrust all outsiders. Counselors from the Homer Mental Health Center and the women's center in Homer were asked not to come into the communities during the summer. It was early fall before the villagers welcomed outsiders back into the village. The council is still wary of outsiders. The S.O.S. project organized in the neighboring community of Seldovia is recognized conceptually as a good plan for dealing with future oil spills. However, the villagers are leery of getting involved because they feel that they have not been offered an equal voice in the running of the organization. One village official feels that the village council should have had tighter controls since the inception of the cleanup effort. This individual believes that the council should have been better able to monitor the coming and going of all outsiders as well as "who was doing what." It is thought by some that if they had able to do this they would have been able to minimize the impact of the spill and cleanup on the villagers and their families. The following statement by one villager best summarizes the attitude that the village lost control over its own destiny:

"There was no control, it would seem like there was just some loss . . . loss in all those areas where we thought there should have been . . . but it was almost next to impossible to take control . . . by the time we got to thinking about it in those terms . . . one of the things that I noticed and the council talked about in their meetings was those people that were given the jobs that paid a little more than the ordinary laborer on the cleanup . . . maybe a little bit of authority handed to them, really, really cut into how people related to one another and it really concerned us that again going back to the split within our community . . . the gaps are so huge and things haven't healed over and mended yet and I doubt that a lot of them ever do

because a lot of words were exchanged, a lot of hard feelings and a lot of favoritism and priorities were set to individuals' families where it should have been met in the throughout the whole community and everybody looked upon as equal . . . and you didn't get that support even if you voiced that concern to Exxon officials, it didn't matter to them, all they were worried about were their own problems."

In July the council took a stand when they realized that people weren't going to be treated fairly. According to one informant, it demanded that Exxon use the local resources with the men and boats that were knowledgeable about the area. They objected to the boom being built by outsiders and felt that the materials could be transported to the village and the booms constructed by the villagers.

To some degree the villagers feel as if they have not been treated as fairly as those in other communities. For instance, all winter they were trying to obtain some money from the borough Exxon fund (money that was given by Exxon on behalf of the Kenai Borough). Seldovia, Homer and Seward all have received funds from the special fund. Only two communities have not received money from the fund: Port Graham and English Bay. As of April they still have not received a response from the borough about their request. One official had the understanding that because Seldovia has been trying to get the villages to join S.O.S. the villages aren't going to receive any money; the borough wants the villages to go through Seldovia for the funding and apparently is reluctant to give the money directly to the village because they don't think that arrangement will work. The village is frustrated trying to work with the Kenai Borough and feels that they are unresponsive. There is some resentment over the fact that, of all the communities in the Borough only English Bay and Port Graham were heavily hit by the oil and yet they are the only two communities not to have received money from the fund.

Changes in the Community

The village has had other difficulties with outsiders. During the initial period of the cleanup effort some VECO employees were reported to have made racist remarks about the villagers. Comments were made on the beaches and over the marine radio about the "laziness" of Natives and racist/sexist comments were said to have been made about Native women. The village complained to Exxon about these remarks and apparently Exxon took the appropriate measures to prevent these remarks from being repeated in the future. However, cleanup workers report that on the beaches there were still some racist attitudes expressed by white workers and they complained that natives were sometimes given the worse jobs. Others complained that while the Homer boats would often sit idle until spotter planes flew over head the Natives boats continued to work.

Perhaps the worse racist incidents reported were the abuses Native men endured while on leave in the city of Homer. The men were sometimes subject to racial remarks and on two occasions men from Port Graham and English Bay were set upon and beaten up in a Homer bar. Some allege that these beatings occurred because the white men objected to the employment of Natives or jealous because they themselves had not been hired by VECO.

As noted above, many villagers felt as if the community had been invaded and taken over by Exxon and VECO. Many people talked in terms of a "loss of control" not only on a community level but on a personal level. Social disruption also occurred because of the influx of large sums of money and the creation of a new social hierarchy by the VECO organizational structure. In some cases members of the younger generation were given authority over members of the older generation. Some villagers assert that those people given managerial roles began to relate differently to former friends and relatives. This disruption of the social hierarchy has created gaps that have yet to heal according to many individuals. One resident spoke of how he believed the social cohesion of the village had been eroded by the introduction of a lot of money and the superimposition of an alien, corporate social hierarchy on the village social organization.

One elder spoke of the intergenerational conflicts that have resulted from the cleanup effort. This person cited the case of one fisherman who couldn't go fishing last year because of the oil spill and due to his age will probably not be able to go fishing the coming year. Some of his children made a lot of money working for Exxon but have squandered it on substance abuse and alcohol and they now expect to depend on their parents.

The breakdown of the social cohesion is often spoken of in terms of people no longer speaking to one another because of resentments and jealousies over who made money off of the spill. Others complained that people are touchy and irritable and difficult to get along with. Behavior like this is illustrative of the significant levels of stress that are still being felt more than one year after the spill. To some degree people also complained over how greedy and inward people have become because of their increased earnings. One individual blamed the new satellite dishes and televisions for keeping people in their houses and preventing them from socializing with their neighbors, while others complained that people are now more reluctant to share their material belongings with others.

The impact on the community has not been entirely negative. The village council and many of the villagers have stated that the oil spill crisis has helped to highlight the need for the community to take control of its destiny and image and forged a new identity. According to certain accounts they have been able to sit down and talk about where they want to go from here and have discussed strengthening their cultural heritage and cultivating village reunification. An example of this will be provided below in the section on mental health. It does appear from talking with many villagers and leaders that the village of Port Graham is determined to control its own future and build a positive, healthy community. The fact

that it has managed to hold on to these goals and to begin recovery by implementing certain of them is an indication of how resilient and determined this village is in shaping its future.

During the cleanup period the village VPSO remained within the village and worked for VECO, but also managed to work for the village as well. The VPSO was also the village representative to the MAC team in Homer. Consequently, he had numerous demands upon his job.

The subject of crime is difficult to discuss in many of the Native villages because the villagers are somewhat reluctant to have outside interference with their internal affairs. Furthermore, the reporting mechanisms that the VPSOs submit to the North Pacific Rim and the public safety office are somewhat superficial regarding detail. Nevertheless, there has been a reported increase of crime in the village of Port Graham that has been documented by VPSO reports and state trooper oversight reports. The reported increase in crime began last summer and continued through the winter. Many of these crimes were centered around drug and alcohol abuse as well as domestic violence. The state trooper oversight reports have blamed the increase in alcohol and drug abuse on the influx of spill money into the villages.

However, the latest reports reveal a decline in the crime rate. Despite this reported decrease it is felt that the real impacts of the spill are only really beginning to hit. There is a general consensus on this both within and beyond the village. The true extent and nature of these impacts have yet to manifest themselves. Nevertheless those familiar with the problem feel that it warrants serious attention.

Way of Life

The spill upset the village's yearly cycles. The contamination of many of their subsistence foods and the closing of the fisheries severely disrupted their subsistence way of life. However, this disruption goes beyond merely upsetting subsistence activities since subsistence activities are closely tied to the social cohesion of the community and to the community's cultural identification. Many individuals spoke of how the villagers look forward to the spring and summer as a time when many villagers spend more time outdoors and with one another participating in gathering bidarkies or in the collection of kelp or fishing. The spill and the disruption of the cleanup effort prevented the villages from participating in these social activities during the spring and summer of 1989.

All the villagers were deeply concerned about the future of subsistence in their community. The uncertainty over the long-term impact of the spill on the environment was a source of considerable stress and worry. The importance of subsistence to both their survival and their cultural identity was best summarized by the following quote:

"I would say that for me subsistence is a kind of hub and lots of things surround that. Subsistence to me specifically is important . . . it is something that I derive a lot of pleasure and satisfaction from not only in the act of doing it but also in the act of passing it on to my children . . . I feel whole when I am doing subsistence . . . over-all subsistence is a hub; it is a hub for me as a Native person and it is a hub for our Native community because everything revolves around that. Everything is related to it. You know, our language is a descriptive language, it describes animals, the things that animals do . . . and that in itself says a lot about, you know, subsistence being at the center."

Since the community is largely dependent on commercial fishing for its cash economy, the closing down of fishing had an economic impact. Many of the areas in which the villagers got their heavier poundage in past years were heavily oiled. This, in itself, has created a great deal of anxiety about the economic impact of the spill in future years. The cannery which has employed as many as 200 people during the summer only employed about 25 people last summer, and this summer it was unable to obtain contracts because of the uncertainty of contamination.

The spill has affected the village economy in other ways. For example, for the past year the clinic has been trying to hire an additional health aide, but has been unable to do so because potential employees are waiting to see if there will be cleanup jobs available during the summer. Obviously, in this instance the impact is not only on the economy but on the delivery of health services to the village.

Family

Family life has not only been disrupted by factionalism and quarreling over the change in social hierarchy and the redistribution of money but also by the impact the spill has had on the children. The recurrent observation that the spill has affected mostly the children in communities is repeated in Port Graham as well.

A lot of women chose to stay and work in the community at the boat cleaning station in order to be near their children and maintain some semblance of normalcy. The women who worked on the beaches were gone for two or three weeks at a time and when they returned they found it hard to re-establish relationships with their children. Men spoke of having the same difficulty and couples spoke of how difficult it was to reunite with one another after weeks of separation. One woman reported that her grandchildren still cling to their parents because they are afraid that they are going to disappear. Other parents also spoke of their children's lingering insecurity. In cases where both the parents worked children often lacked proper supervision. The children also suffered in another sense because the younger ones were unable to understand why their parents were absent for long periods of time and could not fully comprehend the reasons behind the disruption of daily village life.

Children, however, were not the only generation to suffer severely. The elders who could not work were often neglected and could not find a meaningful role to play in helping their village restore itself. Elders who depended on others to chop wood, haul water, supplement their diet with subsistence foods or do other things for them felt neglected and had a more difficult time coping.

Mental Health

Prior to the oil spill, the village of Port Graham was often cited as an Alaskan Native community that had made great strides in reducing alcoholism, family violence, and sexual abuse. The spill and the cleanup effort that followed dealt these efforts a serious blow.

It is difficult to ascertain just how much domestic violence increased after the spill. For one thing, as was reported above, the counselors from the women's center in Homer were asked not to come into the village during the crucial period of last summer. Moreover, it is difficult to get people to talk about these problems because of denial, issues of privacy and distrust of outsiders. According to outsiders, there has been a significant increase in domestic violence. In fact, it has been reported that there was at least one documented case in early summer of this year involving a gun. While these problems seem to persist and are difficult to measure accurately, it is thought that the increasing willingness of individuals and the village to deal with domestic violence problems is a healthy indication of the community's ability to resolve this problem.

Even though the community had made considerable improvement in substance and alcohol abuse the problem returned to the fore after the spill. This pre-existing problem was compounded by the introduction of large sums of money, but also by the considerable stress placed on the lives of the villagers. The uncertainty over their economic and cultural future and the stress of working long hours away from home set the stage for increased abuse. SKIAP, the Seldovia based agency that provides counseling services and educational programs on drug and alcohol abuse, was hard hit by the spill. All of SKIAP's staff but the director and the office manager resigned in order to work for VECO. This meant that the village counselors were no longer available to the villagers at a time when they needed them the most.

Prior to the spill the village of Port Graham and SKIAP had planned to hold a two week treatment program to be conducted in Port Graham. The spill and the events surrounding it delayed the implementation of this plan; however, this past spring (a year after the spill) they were able to hold the program. People from Port Graham, English Bay, Chenega Bay and Tatitlek participated, in all 25 adults and 10 children. The village council donated money and the corporation store donated supplies. The program focused on the problems of domestic violence, substance and alcohol abuse and the forging of a positive Aleut