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PROCEEDINGS
OF THE
NEW YORK MARINA MANAGEMENT CONFERENCE

Sponsored by the
New York State Sea Grant Program

March 28-29, 1974
Syracuse, New York

Sea Grant is a new way of helping coastal users and coastal communities. Through research, it discovers new ways of using or protecting the sea's resources. Campuses of State University of New York and Cornell University are training competent workers in marine careers. An Advisory Service working with Cooperative Extension has been established to help bring needed information about the sea to fishermen, consumers, community groups and industry.

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TABLE OF CONTENTS

"Welcome"	1
Dr. Henry Wadsworth.....	2
Dr. Bruce Wilkins.....	
 "How 169 Marinas Fared in 1973"	 3
Tommy L. Brown.....	
 "Dry Stack Boat Storage- Structures and Handling"	 14
Neil Ross.....	23
Alex Toth.....	
 "Permits For Expansion and Maintenance"	 29
Paul Gaume.....	32
Robert Harding.....	
 "Handling Waste at Our Marina"	 39
Operator Panel: Royal Lalonde, Dave Miller and Ray Cooper.....	
 "Organizing For Action"	 47
Robert D. Kunzman.....	53
Neil Ross.....	
 "Liability and Your Marina"	 56
Joseph B. Bugliari.....	
 "New York State Outdoor Recreation Plan"	 63
Ivan Vamos.....	
 "Energy and Outdoor Recreation"	 77
Situation and Outlook	
Robert Kalter.....	
 "Energy and Outdoor Recreation"	 99
Adjustment	
Tom deRocco.....	
 "Closing Discussion"	 106
Chairman, William Walters.....	
 List of Participants.....	111
 List of Conference Coordinators.....	113
 List of Sea Grant Offices.....	114

WELCOME

Dr. Henry A. Wadsworth, Associate Director
New York State Cooperative Extension

We are glad to have you here. This is an important step for Cooperative Extension to be working with people who operate campgrounds and marinas. Sometimes in the education field you don't get a chance to do all the things you would like to do. The advent of the Sea Grant Program and the Marine Advisory Services permitted us to expand some of our efforts into fields we were interested in, and had some close relationships with, but previously didn't have the opportunity to work with. This was actually an outgrowth of some work Extension did with campground operators in the 60's.

It is interesting that most of us don't know how much information there is available to us for making decisions and, at this point in time many kinds of information are needed for a successful marina or campground operation. How do you cope with all of the things everybody thinks you ought to know? How do you sort out without throwing away things you need? Cooperative Extension and Sea Grant can help here. We intend to try to help you find the information, to understand it and know how it applies to the problems you have in your businesses. This is our mission. It has been our mission ever since Extension was founded as part of the Land Grant University system, and we are continually trying to expand it into new fields and operations where people have decisions to make. From time to time we are able to grow in new directions as we did with the Sea Grant Program.

It is with this in mind that I bring you greetings from Ithaca. I hope you are enjoying the conference, and are getting something out of it. I also hope you will feed back to us the kinds of problems and decisions you have that you would like more information on. This will provide a basis for continuing involvement between yourselves and those who are involved with Extension efforts at Cornell. It is a pleasure to be here, I'm glad to see all of you.

WELCOME

Dr. Bruce Wilkins, Program Leader
New York Sea Grant Advisory Service

It is a pleasure to see you all here today. This is the first conference for marina operators that Sea Grant has sponsored, and we hope you find the next two days worthwhile.

Some of you may not be familiar with Sea Grant because it is relatively new, so perhaps it would be useful for me to mention a few things about it before we begin. Sea Grant is patterned after the Land Grant System's Cooperative Extension Service. Our Advisory Service is intended to be something like Extension, only dealing with coastal problems instead of problems of the inland areas.

Last year we held a series of meetings in an attempt to gain an understanding of some of the problems you and some other marina operators face. As a result of these meetings, several areas of educational need were identified. In other words marina operators pointed out to us areas where they saw opportunities for educational assistance. One of these areas was business management, another was just organization - the opportunity to get together as a group of operators and begin to generate some activities with other operators. A third area was construction and expansion or maintenance of facilities. A final area identified was the relationships of marina owners to governmental agencies, zoning boards and so forth. This was particularly highlighted on the Long Island area.

So, the program set up here attempts to address many of those questions. A number of open periods have been included to allow you the opportunity to visit with other operators and find how they handle problems.

Obviously, many people are involved in a program like this. I think it may be of value to you to know who some of these people are so as the conference goes on, if you have questions or points you want to raise, you may talk with the individuals who can help you best.

Our Regional Specialists, or Extension Agents in Sea Grant are - Richard Gross, Great Lakes Advisory Service, Brockport; Roger Allbee, Great Lakes Advisory Service, Brockport; and Bill Walters, Marine Advisory Service, Stony Brook. Linda Camp is our Media Specialist located at Cornell, and can be contacted for copies of the proceedings, or for our newsletter "Coastlines" and other publications.

Tomorrow the campground operators will be joining portions of your program. For years Cornell has had a Campground Owners Conference, and we saw there were some areas of mutual interests and that it might be valuable to get the two groups together.

Again, we are pleased you are here. We know the marina industry in New York State is an extremely important industry. It is our view, and many of you will agree, that it may not have had the appropriate recognition in the past. But we are hopeful that, based on both research and your input this may change over the next several years.

HOW 169 MARINAS FARED IN 1973

Tommy L. Brown, Research Associate
Natural Resources, Cornell University

Study Description

In the fall of 1972 the Department of Natural Resources obtained funds from the New York State Sea Grant Program, and from the New York State Office of Parks and Recreation to study a sample of the State's commercial marinas, and the boating public. The boater study was conducted by mail questionnaire from a sample of 5,000 registered boaters, and is still being processed. This report focuses on the commercial marina survey.

The objectives of the marina study were to make a comprehensive regional study of the economic viability of the industry, and the host of general operating problems confronting firms. The Office of Parks and Recreation is concerned about these problems because privately owned marinas provide over 75 percent of the State's marina berths, and they must be allowed to operate profitably if New York is to maintain its current level of boating opportunity. New York Sea Grant Advisory Services has as their charge promoting and enhancing the coastal resources of New York by carrying research information to potential users.

To carry out the survey, we drew a sample of 25 percent of the marinas in each geographic region of the state that had at least 10 berths and were open to the public. A total of approximately 675 marinas in New York fit these criteria. From this total, we surveyed 169 marinas, of which 93 were located in the New York City-Long Island-Westchester County area, 36 were on the Great Lakes or the St. Lawrence River, and 44 were in other upstate areas. Usable information was obtained on 165 firms.

Size and Organization of Firms

The size of marinas surveyed ranged from the 10 berths necessary to fall into the sample to 600 berths. For each of the Long Island, Great Lakes-St. Lawrence River, and Inland regions, the average firm had 75 slips, but more marinas fell within the 10 to 49 berth grouping than any other category. (See Table 1) Marinas do not vary very much whether they are on Long Island or in several of the upstate areas.

The major regional difference in the firm size was that fewer of the largest category marinas were located in inland waters.

Table 1. Size of 166 New York Marinas, by Region, 1973

Regions	Number of Berths				Totals
	10-49	50-99	100-149	150 and over	
Long Island	42	25	16	10	93
Great Lakes	13	7	9	5	34
Inland Waters	15	14	8	1	38
Totals	70	46	33	16	165

Statewide, about 55 percent of firms studied were incorporated, while 45 percent were unincorporated. About 15 percent of the unincorporated firms were partnerships, while the remainder were individual or family proprietorships. Only two of the incorporated firms had more than 10 stockholders. A somewhat greater percentage of Long Island and Great Lakes firms had incorporated than Inland firms. As one would expect, larger firms were more likely to be incorporated than smaller firms - about three-fourths of firms having at least 100 berths were incorporated.

Regardless of the corporate structure of the marina, less than one-quarter of the firms studied identified a paid manager. Those firms not identifying a paid manager indicated the owner or a member of his family served as the manager. That is, he didn't take out a separate salary for this paid work.

Marinas represent one of New York's older recreation enterprises, having been in existence an average of 27 years, and under present management for over 12 years. Great Lakes and Lake Chautauqua marinas averaged over 30 years in operation; Long Island marinas averaged 27 years; Hudson River, Finger Lakes, and Barge Canal firms averaged 24 years; while Lake Champlain and other Northern New York marinas averaged 16 years in existence.

Natural Resources

Although the average size of marinas studied (75 berths and out-of-water storage for 102 boats, plus parking for 94 vehicles) varied little by region, the resource acreage available to operators varied highly. Long Island and Lake Chautauqua marinas averaged only two and one-half acres for their operation, while Great Lakes-St. Lawrence firms had seven acres, Hudson River-Barge Canal-Finger Lakes firms had 12 acres, and Northern tier firms averaged 27 acres. The acreage of Northern tier firms was sufficient that many marina operations also included such other recreation enterprises as campgrounds and rental cottages in conjunction with the marina.

These acreage figures are also indicative of shoreline available for marina development. Lake Chautauqua marinas averaged only 325 feet of shoreline and Long Island firms averaged only 500 feet, while Great Lakes and Hudson River-Barge Canal firms had over 700 feet and Northern Tier firms averaged over 1200 feet of shoreline.

Services Provided

In addition to providing berths and some winter storage, marinas provided many other types of services (Table 2).

Operating Season and Occupancy

The majority of marinas in each region (70 percent in Long Island and Inland areas, 55 percent in the Great Lakes area) were open year around, and offered such winter services as storage and repairs. Typical boating seasons were eight months on Long Island, and six to eight months in upstate areas.

For 70 percent of marinas studied, both regionally and statewide, all berths were rented in advance on a season basis. For the remaining firms, over half of their berths were rented in advance for the season. Thus only 10 percent of the marinas surveyed were operating at less than full berth capacity.

Some operators have found an ingenious way of increasing berth capacity, on a short term basis, while also providing a valuable customer service. Thirty-eight percent of Long Island firms, 61 percent of Great Lakes firms, and 86 percent of Inland firms use a "float plan," in which a customer leaving his berth for one or more days files his trip plan with the operator. Not only can the operator gain additional revenue by renting the berth while the customer is away, but he can also relay messages to the customer's destination, or begin to check on the customer's safety if he does not return as scheduled. In some cases the customers may be paid a small sum for allowing rental of their berth.

Charging for Berths and Storage

Most marinas capable of handling boats of several size categories charged differential fees according to size for berth rentals. About one-third of the firms studied used per footage rates in calculating overnight or seasonal charge, while most of the other firms used broader categories such as a given rate for boats under 30 feet in length, a higher rate for boats 30 to 40 feet in length, and a still higher rate for larger boats.

The average seasonal rates for boats less than 30 feet long were \$123 at inland marinas, \$138 on the Great Lakes and St. Lawrence, and \$210 on Long Island. Average seasonal rates for 30 to 40 foot boats were about \$240 upstate and \$320 on Long Island. Average seasonal rates for boats over 40 feet in length were \$310 upstate and \$475 on Long Island.

Table 2. Percent of New York Marinas Providing Various Services to Customers, 1972, by Region

<u>Service</u>	<u>Long Island</u>	<u>Great Lakes-St. Lawrence</u>	<u>Inland Waters</u>
Freshwater, dockside	95%	79%	68%
Electricity, dockside	89	82	70
Oil	87	100	95
Restrooms	84	94	93
Marine supplies	80	82	85
Engine repairs	77	81	73
Hull repairs	73	67	63
Gasoline sales	68	97	95
Motor sales	62	62	64
Boat sales	58	71	74
Ice	53	65	73
Trailer sales	38	56	61
Showers	30	23	46
Restaurant	24	24	28
Food sales	20	6	16
Boat and motor rentals	17	46	29
Bar	16	18	20
Marine insurance	8	9	5
Lodging	3	18	5

Winter storage fees (out of water, uncovered) for boats less than 20 feet long averaged \$70 upstate and \$120 on Long Island; for boats 20 to 30 feet, \$110 upstate and \$175 on Long Island; for boats 30 to 40 feet, \$160 upstate and \$225 on Long Island; and for larger boats, \$195 upstate and \$245 on Long Island. This type of storage was used in various regions, in sufficient degree that averages might be meaningful.

Labor

Paid labor for yard and dock employees tended to be seasonal, while office and miscellaneous help was more constant from summer to winter. The average marina of 70 slips employed about two yard and dock workers in the winter, and about four full time equivalent workers during summer months. These marinas employed an additional 60 hours per week office and miscellaneous help in the winter, but this figure increased to only 80 hours per week during summer months. On Long Island, this latter employment level was almost constant, reflecting a slightly longer boating season than in upstate waters.

Financial Analysis

For two reasons, detailed financial information was not available from as many firms as we had hoped. First, these data often were not at the marinas, and were not directly accessible. Secondly, the idea of financial surveys and our involvement with the marina industry is relatively new, and it takes time to establish rapport with new audiences. In cases where books were not at the marina, the operator usually could estimate his receipts rather closely, and many were willing to do so. However, they were not able to estimate the many expense categories.

Data presented here are from 78 firms statewide that were able to provide complete data. Forty-four of these firms are in the New York City-Westchester County- Long Island area, then are Great Lakes-St. Lawrence firms, and 24 are other upstate firms.

Receipts

Average gross receipts, including boat and engine sales, for these firms varied from \$61,047 for the smallest size grouping to \$431,481 for marinas of at least 150 slips. (See Table 3) Note that there are two subtotals because a substantial number of firms did not deal in boat and engine sales.

Perhaps the most striking observation about Table 3 concerns the diversity of the marina-related businesses. While receipts from berth rentals, launching and hauling, fuel sales, and storage vary by size groupings as one might expect, a firm's berthing capacity is a rather poor index of its volume of boat and engine sales, marine supplies sales, repairs, and other ancillary services.

Table 3. Gross Receipts, 78 New York Marinas, 1972

	SIZE GROUPING			
	(Average Number of Berths)			
	Number of Marinas in this Grouping			
	10-49 (28) 30	50-99 (68) 24	100-149 (112) 17	150 and over (231) 7
Component:	Gross Receipts			
Berth Rentals, Launching and Hauling	\$ 7,191	\$ 12,197	\$ 26,205	\$ 51,033
Storage	8,102	8,313	10,447	24,714
Fuel Sales	8,936	13,843	13,296	24,591
Hull Repairs	6,172	13,395	3,929	28,643
Engine Repairs	5,278	7,359	4,632	11,071
Marine Supplies	7,017	16,417	8,279	28,714
Restaurant-Lodging, Charter, other	3,628	3,142	3,154	6,429
Sub-total	\$46,324	\$ 74,665	\$ 69,893	\$175,195
Boat and Engine Sales	14,723	93,408	87,994	256,286
Total Gross	\$61,047	\$168,073	\$157,887	\$431,481

Expenditures

Total expenditures, including purchase price of boats and engines sold, ranged from \$58,060 for 10 to 49 berth marinas, to \$349,482 for marinas of at least 150 slips. Again separate subtotals were included.

Table 4. Total Expenditures, 78 New York Marinas, 1972

SIZE GROUPING

(Average Number of Berths)

Number of Marinas in this Grouping

10-49 (28) 30	50-99 (68) 24	100-149 (112) 17	150 and over (231) 7
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Component:	Expenditures			
Labor	\$12,492	\$ 24,618	\$ 29,676	\$ 77,680
Taxes	2,996	5,497	5,559	4,750
Insurance	1,754	3,742	2,312	6,333
Interest	679	3,549	2,553	14,178
Utilities	1,361	2,178	1,918	2,650
Maintenance	3,678	1,875	6,735	4,303
Leases	3,077	2,618	1,655	2,000
Advertising	483	2,229	922	4,700
Depreciation	470	1,921	1,153	21,000
All Supplies	9,457	14,871	4,747	22,725
Fuel Costs	7,862	15,516	12,993	13,106
Miscellaneous	1,679	6,318	406	2,734
Sub-total	\$46,012	\$ 84,932	\$ 70,639	\$176,157
Boat and Engine Costs	12,048	70,615	71,061	173,325
Total Expenditures	\$58,060	\$155,547	\$141,700	\$349,482

Net Income

Average net income from all sources ranged from \$2,987 for 10 to 49 berth marinas, to \$81,999 for those of at least 150 berths (Table 5). Table 5 suggests the profit in the marina business is via boat sales. Although a marina operator must often assure the customer of dockage and storage space before he can sell a boat, these data suggest that the challenge to operators is to find means of making some profits from berthing operations. This is particularly true for the half of the marina industry not involved with boat sales, and it may become critical for all firms should the market for new boats drop for any extended period of time.

Table 5, Net Income, 78 New York Marinas, 1972

Component:	SIZE GROUPING			
	(Average Number of Berths)			
	Number of Marinas in this Grouping			
	10-49 (28) 30	50-99 (68) 24	100-149 (112) 17	150 and over (231) 7
<u>Including Boat and Engine Sales:</u>				
Total Receipts	\$61,047	\$168,073	\$157,887	\$431,481
Total Expenses	<u>58,060</u>	<u>155,547</u>	<u>141,700</u>	<u>349,482</u>
Net Income	\$ 2,987	\$ 12,526	\$ 16,187	\$ 81,999
<u>Exclusive of Boat and Engine Sales:</u>				
Total Receipts	\$46,324	\$ 74,664	\$ 69,893	\$175,196
Total Expenses	<u>46,012</u>	<u>84,932</u>	<u>70,639</u>	<u>176,157</u>
Net Income	\$ 312	\$-10,268	\$ - 746	\$ - 961

Operating Problems

Breakwater Facilities

About 11 percent of Long Island firms, and 23 percent of upstate firms are located in areas of such highwater turbulence that they have found it necessary to construct breakwater facilities, usually at very high cost.

About half of these operators had experienced difficulties - zoning restrictions to overcome in construction, flooding that destroyed the facility on the Great Lakes, and barges who either rammed the facility or caused sufficient wave action to damage it.

Insurance

Almost half the operators surveyed indicated the need for an insurance policy developed for marina operations especially those on Long Island. The majority of complaints about current insurance availability concerned high costs of single policies, unnecessary duplication of coverages, and lack of insurance availability on such items below mean high tide, or riparian property lines, breakwater facilities, shoreline erosion and docks.

Most Great Lakes firms indicated insurance coverage was not a problem, citing independent broker plans as being satisfactory.

Expansion

About 30 percent of Long Island marinas, and 50 percent of upstate firms had increased their physical size in recent years. The major means of expansion was by more efficiently utilizing existing dock space, rather than by acquiring more acreage. Primarily, the expansion was done to expand dock spaces, but it often allowed additional boater services.

About half the firms surveyed plan to increase their size of operation by 1976. Docks and storage were the items most frequently named for expansion plans, but again, this often increases many other service-related components. This expansion will most frequently be done by increasing operating spatial efficiencies. Zoning restrictions and high riparian acreage costs often makes expansion of acreage prohibitive.

Security

Security was mentioned as an acute problem in the Long Island-New York City area, and a moderate problem in many upstate areas. About 55 percent of metropolitan New York City and Great Lakes marinas, and 87 percent of other upstate marinas provided some type of round-the-clock security. All but six marinas of the 165 surveyed provided round the clock illumination, and 91 percent of the firms reported local police specially patrol their firm.

Pumpout Facilities

Presence of pumpout facilities statewide seems correlated with marina density. While only 15 percent of Metropolitan New York City firms provide pumpouts, 37 percent of Great Lakes firms and 47 percent of other marinas provide this service. About 20 percent of firms not providing pumpout facilities planned to install this service in the future.

Summary

Results of this study are being compiled in greater detail at this time, and will be available to each of you upon completion in late spring. A future report will also make available to you a summary of boater interests and needs by region.

Problems uncovered by this survey are being forwarded to Sea Grant Advisory Service staff. They plan to sponsor regional forums in the future to bring experts both in and outside the marina industry together to try and resolve these programs.

Discussion

Question: Do those rates include electricity for shore power? If they did include power, I would consider it more or less in line, but if they didn't I certainly wouldn't, since power is getting to be a big item, more costly every year, it is an important part of those figures.

Response: They are just the average open berth rate.

Question: How do you account for the utilities figures in column 2 and 3 where utilities expenditure for 68 marinas was greater than for 112 marinas? (Table 4)

Response: I think the expenses are going to be rather indicative of what I said about the receipts (Table 3). Firms vary so much in the services they provide that the same variance is going to be reflected in their expenses. Unlike some of the other recreation industries we've studied, such as campgrounds, where these things are relatively constant, the marina operators are into many types of enterprises, in addition to providing berths, launching and hauling, and that's really what the main difference is.

Question: How do you account for the taxes being so low on that one? (Table 4) Could it be smaller because the smaller operators offered more services than the larger ones?

Response: Yes, and in fact if you remember, there were a number of cases in which that actually happened.

Often we like to come to some sort of net operating figures such as a profit per berth, to standardize things. I didn't try to do that here

because I thought it would be rather misleading in light of the many facets of operations marina operators are in. Perhaps later we can calculate that only on the basis of things relating to berth rental. And, I'm knocking out fuel sales, repairs, other things that many firms are not involved with.

Comment: I think your answer to that is the size of the boats marina operators are storing. I think your large marinas are storing small boats and your 50 slip marinas are storing large boats. You check up on that I think you'll find that's why the difference in price. Who can afford a 100 slip marina for 40 foot boats?

DRY STACK BOAT STORAGE - STRUCTURES AND HANDLING

Neil Ross, Executive Director
Rhode Island Marine Trade Association

This morning I started thinking about the evolution of boat handling equipment. The first system for handling a boat, was probably just a skid in a muddy slope and manually pushing a boat into the water. As he got a little more sophisticated man probably put some tracks down and skidded his boat on some greased tracks. The first railroad ever invented was probably a marine railroad - going in and out of the water. This perhaps led to the first winch system; pulleys, of course, were first invented and developed for boats. The first boom cranes and overhead cranes evolved out of boating needs (commercial boating rather than pleasure boating). Travel lifts evolved from the overhead cranes, a little more mobility. Trailers came from the ramps and the skids and the railroad systems. These now lead us in the recreational industry to hydraulic trailers.

Throughout man's history, the flow of technology, in terms of handling big objects; boats, cargo, came from the waterfront and moved inland. Today we are going to talk about a piece of technology that I think came from inland and is coming back to the waterfront; dry stack boat storage systems. This comes to us primarily from warehouse businesses that deal with big bulk cargo items.

Dry stack storage is a concept whose day I think has come. Gone forever are the days when we have endless shorefront, the ability to buy up as much acreage along the waterfront as we want and to build freely on it. Now that situation has changed. Everybody wants a piece of that shorefront, the price of this land has gone sky high, taxes are high and the government is issuing more and more restrictions. To further complicate matters, more people have more boats and they want to do something with these boats when they are not using them. That's where we come in.

Neil: How many of you are familiar with Dry Stack Storage System and have considered going into this? (many hands) If any more of you raise hands I won't have to say anything.

Neil: Who among you now owns and operates a dry stack storage system? Two of you.

Neil: Have any of you definitely decided against it?

Response: I ruled it out after I made a canvas of three locations in Florida, several years ago. Everyone I talked to had an unfavorable report.

Neil: This is true, some people have had a bad experience with it. But, now other people have not. There are more dry stack storage systems in use in Florida than anywhere else.

Response: I found it discouraging because one man told me he stacked his boats seven high in a building. One month it cost him sixteen hundred dollars to replace broken windshields because his lift operator

positioned the boats a little bit too high when he put them in their bays. I said, that's not for me.

Response: The thing I dislike about this system is that you have to have a constant labor to take the boats in and out regardless of whether you are closed or not.

Neil: It depends on your system. If you have in and out service, yes, you have to have one person with this responsibility.

What are some other disadvantages to this system you might consider?

Response: An in and out service can get very congested on the weekend. Everyone wants his boat put in the water at the same time.

Neil: How can you get around that though? They call you the night before and you put the boat out on a dock the night before. So, you still need docks until the customer gets loaded and goes out and also when he comes back in.

Question: Did you ever figure out what percentage of docks you needed for the number of boats you had in dry storage?

Response: It's really very low if you have an attendant. You can take half a dozen boats out in an hour or less. Sunday nights we use the dock attendant for bringing the boats to the fork lift and the two lift operators for taking them in.

Question: How large a boat?

Response: We handle boats up to 23 feet long. There are some facilities handling up to 30 foot boats. This is with in-out drive on it. That's not a cabin cruiser at 30 feet.

Not all boats can be stored this way, sailboats for example, or those with unusual hull designs.

Question: What kind of a return can you get for the cost and operation of such a system?

Response: Our biggest return has been in freeing up in-the-water docks for additional dockage, and accessory uses of the fork lift for repairs.

Neil: One advantage, as the first gentleman was saying, is that you can take the smaller craft, the outboard craft out of the wet slip space (summer storage) and those spaces are released for bigger units, sailboats, etc. Now we are talking about expansion possibilities. If you can't expand on the waterfront, because the State won't let you go out, or no more land is available for purchase on either side of you, then one possibility is to expand upward. We learned this with parking lots for cars in the cities.

What might be some of the advantages to you as the marina owner or manager?

Response: I have customers who only use the water about 4 or 5 times all summer.

Neil: Right! Let the active people use the wet slips. Those boats not often used won't deteriorate sitting idle in the water, if they are in dry storage.

Response: You can use the less expensive back acreage because there is less demand for it.

Question: Does it require two men, one to operate the fork lift and another to direct?

Response: No, once the operator has the experience, he can do the directing himself. But, you are not going to have one man working seven days a week, so you really need two trained people for sick days, for days off, and to help out. Also, in putting a boat into the water it's nice to have somebody to grab a line so the boat doesn't drift off. But, this could be the boat owner himself, or a dock boy.

Neil: It reduces the handling of the boats. There is more security, and I think this is very important. As an industry we haven't really been hit hard by the insurance companies and others for securing these boats. When a boat is in our yard, we have care, custody, and control of that boat. And, when people can mill in and out, over, under and on them at any time we are not offering much protection or security. Boats in dry stack storage are in a building and are locked up. You and your customers are the only ones allowed in that building. If a customer wants to work on his boat, he lets you know, you take it out, put it on a rack outside and he can chip, pain, spray, burn, whatever he wants. I know of one marina back home so crowded you can hardly put a piece of paper between the boats. A customer has to climb across four or five other boats to get to his boat.

It is my hunch that as an industry we are going to be pressed for more security. I think there is some potential with this system to go to the insurance companies and show them we are offering more security; protection from storm, vandalism, theft and even fire because we can put in sprinkler systems and fire detection units. Their risk as our underwriter is less, so they can reduce the rates.

The building isn't subject to wind and wave deterioration or ice damage in the winter time. The building, thus the investment, lasts longer than waterfront docks and floats.

There are advantages to the customer too. If you are on salt water, he doesn't require any fouling paint. He has to paint less often, has bird protection, is out of storms, the wear and tear on his boat is a lot less. And you can provide additional services to him. If he gives you a half hour notice you can fill up his gas tank if you have gas, warm up his engine and give his boat routine servicement. He can pay you on a monthly installment plan rather than a seasonal lump sum, which many people find difficult.

You make the management decisions, so be sure to look at all the alternatives. You each have a unique operation. One time I figured out that marina operators provide 15 or 16 different types of services. You take those 16 and you mix them all around, how many thousands of combinations can you come up with? That's what your business is all about.

In planning a system, there are four things that you have to keep in mind, and I think you have to do them in this order.

1. First, you decide what size and number of boats you want to store. This is going to determine the type of rack system, building and everything else you are going to have.
2. Next, you have to determine the rack size, the system.
3. Decide what you are going to use to move the boats in and out - it might be a lift truck or an overhead crane.
4. Then, the last thing is to plan the building around the rest of this. DON'T plan your building and then see what you can fit into it, as is often done. Land restrictions, the amount of land you have, may determine how big this building can be, but before you reach the point where you talk with an architect, figure out the rest. I think this is extremely important and is one area where a lot of people have run into trouble. They get their building up, racks in, buy their fork lift then discover the fork lift is too high to go through the door. Or, they can't get their top boat on the rack because they haven't allowed enough clearance. So, they have lost some money on their investment.

The type of boats generally used in this are power boats, inboard and outboard, up to thirty feet long. I think you will find that boats 25 feet and under, are easiest to handle for in and out type of storage. For winter storage, you can manage up to the 30 feet boats because you are moving them only once.

Depending on the system you have racks can handle up to 15,000 pounds per boat. But you could have a super system capable of handling more weight. Sailboats with easily removable masts could be used in this system. Boats on trailers could also be stored. However, at this point it doesn't seem economically feasible because a trailer extends out further than a boat, thus you would be wasting more building space, and would have to have a bigger building.

In selecting any kind of a rack system, look for flexibility in design, weight capacity, strength, and cost. Don't decide how much you will spend for a rack first and then see what you can put on it. You want to avoid having the rack collapse on you because it was under engineered. Decide how long your rows will be and how high you want to go. With a fork lift truck you can handle up to five boats high. With an overhead crane, it is estimated you can stack 10 boats high.

You don't want the same size bays all the way up. In a flexible system, bigger and heavier boats are going to be at the bottom and smaller ones progressively up to the top. You need to design the top racks so you can get more units in. (See Diagram 1)

Most of the units are designed so the boat is put in at a 90° angle to the rack system. If you have an area problem; not much land, a narrower building, or less turn around space in between, you might consider putting boats in at a 60° angle (similar to angle parking). With a 60° angle in a square building, the number of boats you can handle is less, from 15 to 20% down. But, you can handle a bigger, longer boat.

Diagram 2 shows a typical system. Again, the boats are put into the individual bays with cradles, on which the boat is rested. In calculating the depth of the bay be sure you allow enough clearance to get the boat in and out, especially if it has a windshield or anything else sticking up. There will be some waste space under the roof.

Often you will see the type of system shown in Diagram 3. It is a two row system: two sets of bays with the space in between utilized for the fork lift truck to go around and put the boats in. These can be used outdoors, but in New York I wouldn't recommend that, we do need enclosure.

In this two row system, there is waste space. You need room for the fork lift to maneuver around. How do you figure out the width of your building if you are going to have this type of two rack system? You calculate 3 times the length of the longest types of boat you are going to store plus the length of your truck, not the forks. The trucks can pivot within their own space. We figure the average aisle you will need is about 50 feet. This is between the ends of the boats, not the racks. (Diagram 3)

There is another possibility if you don't have enough space to allow this much room in between the racks. Consider two racks parallel to each other inside of the building with outside entrance to the rack system (Diagram 4). You can use sliding doors like in aircraft hangers. Or, if you have an existing building, you could consider extending the roof line down and putting a rack on the outside. People do that for smaller systems (Diagram 5).

We are going to have an in depth talk on fork lifts so I won't say too much more than generally they can lift 5 boats high. An overhead crane system, on the other hand, can go up to 10 boats high. That makes a pretty big building. An overhead crane lift runs on rails the length of a building and then it has a unit that can go back and forth and swivel around.

A final option is to locate the building on the edge of the water and have a travel lift built into the building. I think this is particularly applicable say to fresh water areas. However, this type of system is far more expensive, less versatile because you don't have a fork lift with multi-use possibilities, and it is estimated that to justify the expense of this you need a system accomodating between 500 to 800 boats.

Diagram 1. Dry Stack Storage System (front view)

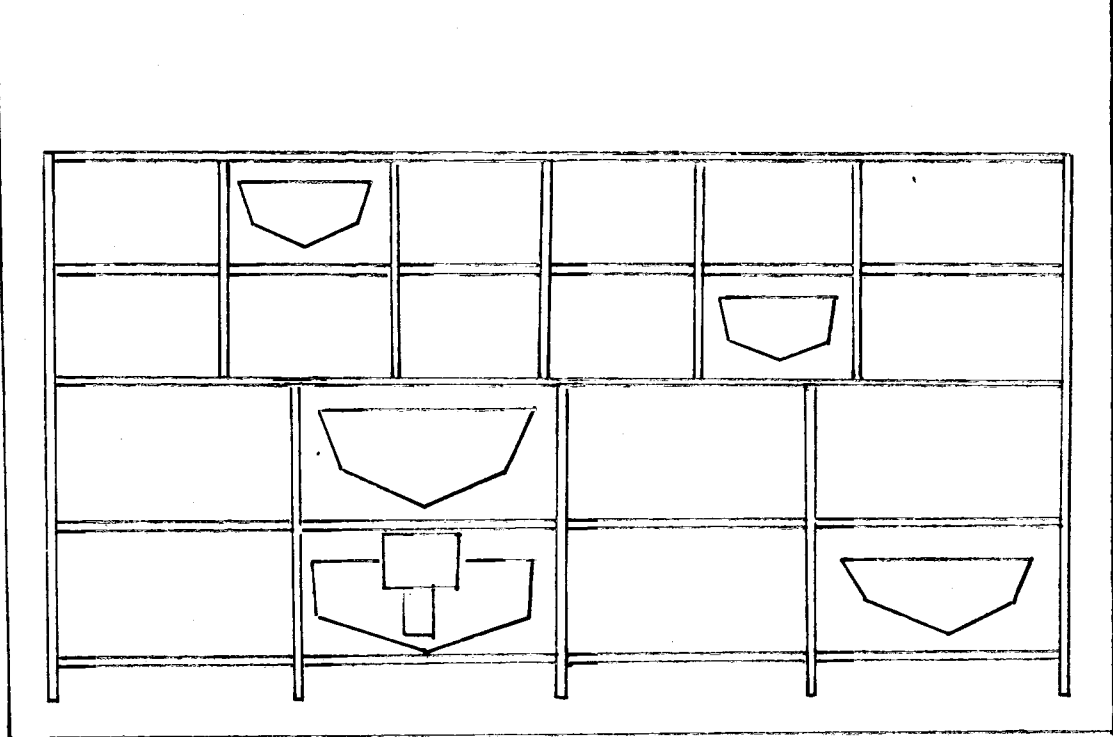


Diagram 2. Dry Stack Storage System (side View)

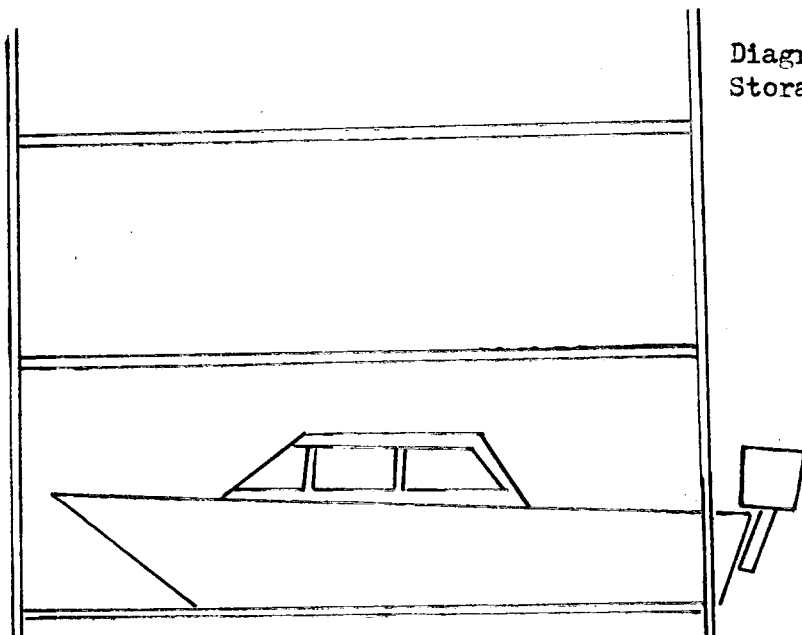
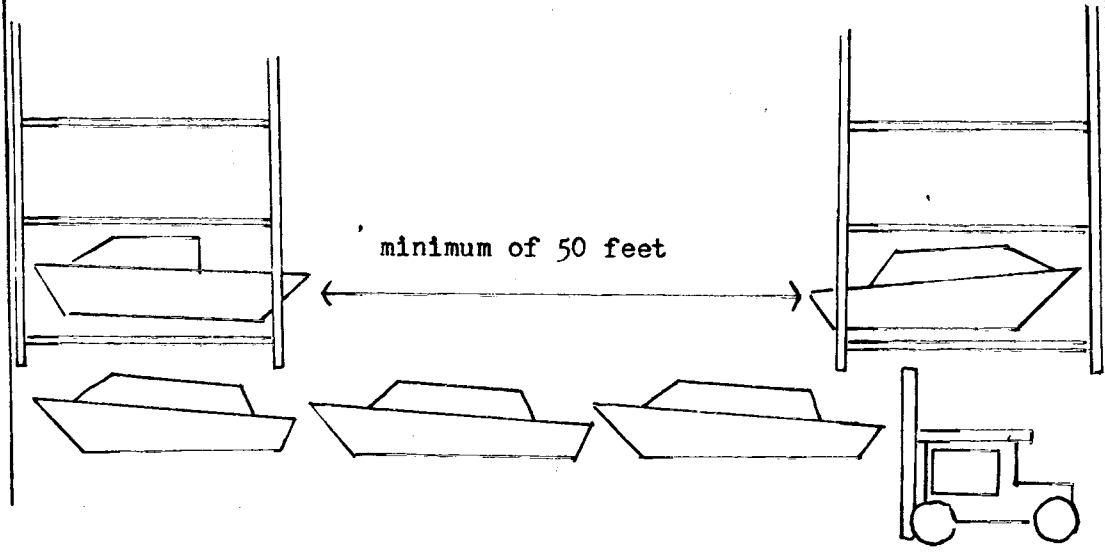


Diagram 3. Two-Rack System



Space needed = 3 times longest boat + length of fork lift

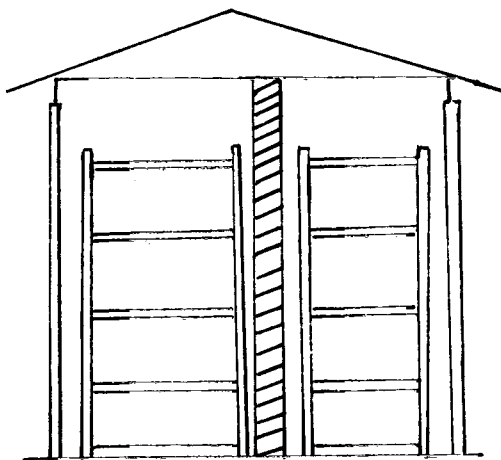


Diagram 4. Two-Rack System,
With Outside Lift Approach

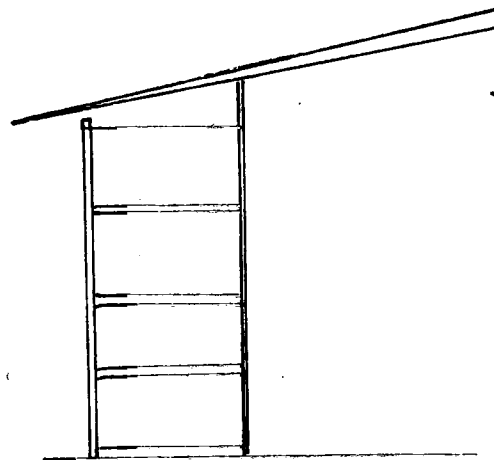


Diagram 5. Outside Rack System-
Lengthening Roof of Existing Building

You design your building around whatever system you have. The height of your building will be determined by the extended mast height of your fork lift with your boat on it. This has been an area where some people have had problems, because they have pitched their roof too much and have lost the top rack. Construction of a metal building with an open span seems most popular although you do see some with ridge poles.

Now I would like to give you a case study dry stack storage system built on Lake Winnipisaukee in New Hampshire. These are 1971 figures. The owner built a 100 ft. wide by 250 ft. long by 38 ft. high building. It gives him 25,000 sq. ft.

CASE STUDY: 1971 - GUILFORD MARINA, GUILFORD, NEW HAMPSHIRE

<u>Item</u>	<u>Cost</u>
Building	\$150,000
Racks	22,000
Fork lift	15,000
Cradles	4,200
<u>Paving</u>	<u>3,000</u>
Initial Investment	\$194,200
Building Depreciation	\$ 7,500
Equipment Depreciation	8,800
Summer help	4,500
Storage, labor, materials	5,700
<u>Miscellaneous</u>	<u>500</u>
Operating costs for 1 year	\$ 27,000
Income from 210 Bays (summer storage)	\$ 26,460
Winter Storage income (150 bays - 18 ft. ave.)	21,900
Winter Storage income (60 bays - 28 ft. ave.)	19,680
<u>Floor Storage</u>	<u>5,625</u>
Total Income	\$ 73,665
Total Income	\$ 73,665
<u>Operating costs</u>	<u>- 27,000</u>
Gross profit before overhead	\$ 46,665

The cost of the building was \$150,000. He put 210 racks in it and has the system with just the two systems of racks. It cost him \$22,000. The fork lift is a 10 ton fork lift, it was two years old, \$15,000. The cradles were built by he and his men, cost about \$4,200. Paving his building with a macadam ramp going down to his water, to his bulk head, was about \$3,000. A total cost of \$194,200. The unit costs per boat, let's put it that way, was \$6.00/sq. ft. for the building, the racks approximately \$100/rack, and the cradles about \$20. That same year his operating costs, the depreciation on his building over a 20 year period of time \$7,500, depreciation on the other equipment he has, the fork lift, the racks and so forth, \$8,800 (that's a 5-year depreciation); \$4,500 for summer help; storage, labor, material costs 12%, \$5,700; miscellaneous \$500; \$27,000 operating costs for the one year. This was 1971. Now his income for that year was \$7.00/linear foot, he figured 18 foot overall average for the boats that he has in there, 210 bays, \$26,460. That's summer storage (in and out type storage).

Winter storage, 150 bays for 18 foot average, times \$146 gave him a \$21,900 income. Sixty bays at 28 foot average, at \$328/unit, is \$19,680 and, as you pointed out, waste space on the floor between the two, becomes another storage area and off of that floor he returned \$5,625 for total income of \$73,665. Operating cost \$27,000. Gross profit before overhead, \$46,665. This is Guilford Marina in Guilford, New Hampshire.

This year this marina is charging \$9.00/linear foot for the in and out storage. I don't know what their winter rate is. Presumably, costs for building it are up too.

I think a dry stack system allows us to consider a total year program for the customer rather than separate packages. You might scare them if you added it all up and gave it to them all at once, but they might like it if it's divided by 12, better.

Sometimes it is difficult for us to adopt a new concept, and this is true also with the customer. Dry stack storage doesn't sell immediately when you open your door, it has to be marketed. People are afraid you are going to drop their boats. But I think when we can't expand horizontally, the only other expansion possibility we have is to go vertically. There are disadvantages, but with good management this can be turned into a profitable venture. Thank you very much.

Alex Toth, Sales Manager - Heavy Equipment
Clark Equipment Company

I am from an industrial manufacturer, and we do sell new and used lift trucks. My primary purpose here today, is to show a series of slides that will illustrate two different methods of removing boats from the water and putting them in storage and vice versa. These are examples of our basic lift trucks that have been adapted for the marina industry. One of them was designed specifically for the marina industry but is essentially a fork lift truck.

I do want to go back to one thing Neil said, I think is very important. A dry stack marina operation is a system, and every area has to be coordinated for this system to operate correctly and profitably.

One of our major problems in supplying this equipment, is that marina operators often attempt to work with existing buildings and docks. They put racks in their buildings and then obtain their lift trucks. That is where they run into problems. The truck won't fit in the building, it can't lift high enough, so the operator pokes the mast through the top of the building and so forth.

You hit on this point earlier, if your lift operator is not highly skilled he is going to cause damage. So if you are going to consider using this system, you had better be prepared to have a competent driver. He can make you or break you. It is really very simple to train them.

To make our marina handling equipment we start with a basic lift truck. In the first system, we modify the basic lift by lengthening a section of the fork. This is now what we call a negative drop fork. It allows you to drive up to a dock, lower the forks below water level, pull the boat over and lift it out of the water to a carry position. The boat engine is above dock level so the operator won't hit it or damage it as he travels to the storage area.

The second method is called a negative drop upright. We had negative drop forks on the other one. But here we go one step further; the whole framework goes below dock level and is partly submerged as it receives a boat. Once the lift is in that position the operator elevates the forks with the boat on them and takes the boat to storage the same way as the other truck did.

Where do you use these systems and what are some of the advantages and disadvantages of each. If you have plenty of overhead clearance, no overhead electrical wires to run into anywhere, (these should be put underground) I would say you should use the negative drop forks system. It is less expensive to buy because it is simpler than the other one. And you don't have the hydraulics involved, so maintenance is not as much of a worry.

One thing I do want you to remember with negative drop forks, when the forks are on the ground, the raised height of the lift may be higher than your boats. That's why you need to consider overhead clearance.

There is one limitation of this type of system. We do not recommend you go over 7 ft. down. If you do, you put some stresses in this mechanism and you may have problems. In the other system you can go down 10 ft., so if you are faced with some tide conditions you have to look at this before deciding what system you are going to use.

The other advantage of the negative drop fork over the negative drop upright is that the forks are the only things that ever go into the water. This is particularly important if you are in salt water.

With the negative drop upright system the whole mechanism goes into the water. There are two hydraulic cylinders on it; rollers inside that roll up and down to make this thing work. In salt water without proper maintenance, you can have problems.

The advantages of the negative drop upright system: You don't need as much overhead clearance. This is important if you have to go through a doorway or if you have overhead wires. In Diagram 1, the two systems are compared - stacking a boat at the same height. Using the negative drop upright system stacking at 242 inches, you have an overall height of 282 inches. With the 7 ft. negative drop forks to stack at the same height you would have an overall height of 446 inches or 37 ft. 2 in. That is one of the reasons why I say it is important to do your planning first.

Two things can aid in the operation of taking the boats in and out of the water. Normally a lift operator has to let the forks down, get off the truck, go out and get the boat and pull it back over the forks, get back on the truck and then lift the boat out of the water. You could have an additional person so the lift operator doesn't have to get out of the truck.

With the negative drop fork lift there is a hydraulic system connected to each fork, controlled by the operator. He can pivot the forks out as he begins to lower them so the forks go around the boat and into the water. He can then pull the forks back together and lift the boat up. If the wind isn't blowing it is a one man operation.

One other thing that I do want to mention, is a modification you have to do to your dock. You need something to keep the lift truck from going into the water. Usually it is nothing more than some iron welded together with a plate on the front, placed back about 4 ft., secured to the dock. The operator can run up to it, bump it and he knows he has gone far enough. You do have to get the truck close enough to allow your mast to go into the water.

Discussion

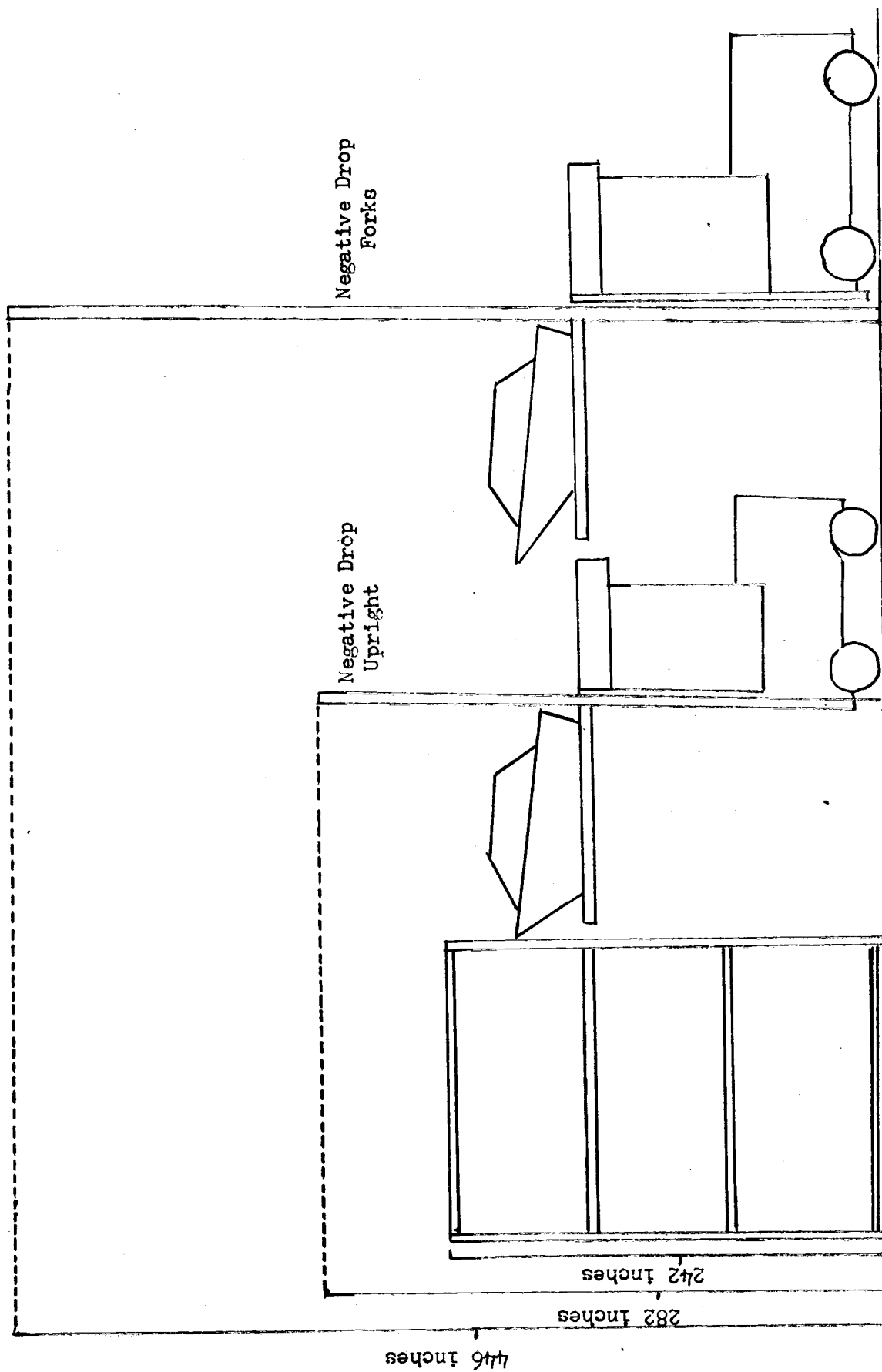
Question:

How much does one of these lifts cost?

Response:

It will vary considerably depending on what you want to get on a truck. New units run from \$15,000 to \$40,000. There are used ones available too.

Diagram 1. Comparative Lift Systems



(note: diagrams of lift trucks have been greatly simplified)

Question:

Are there used ones available with those special features?

Response:

There are used lift trucks available that can be adapted. To be honest, in today's market, everything is scarce, including used lift trucks.

Comment from Neil Ross:

Travel Lift has another type of unit; a permanent dock fixed system which goes down into the water like a fork lift only it's stationary. It just goes up and down. It requires one operator to go down in the water to bring in the boat, then swivel it around to place it on a fork lift. It is a two stage system. There is a new dry stack storage system going into New Bedford Harbor with a 200 boat capacity using this system. They are constructing the building out over the water so the fork lift never has to leave the building.

Alex Toth:

Our involvement with this type of equipment has increased tremendously in the last couple of years and the people who have bought it say they are doing very well. Mainly it is being used in Florida but it is spreading to the lower part of California and through the mid-south along the coast.

Question:

Can you drive a fork lift on a hill?

Response:

Yes, but it's not recommended. A fork lift truck is a counter balanced piece of equipment. It has a drive tire and a steer tire so if you put a weight on the end the steer tire tends to come off the ground. The drive tires are your fulcrum point. Boats by their nature are large and bulky and they stick out way in front of the truck. The further out you put that weight, the further that back end comes off the ground. When you are stacking high in the air and you get on uneven ground, the truck becomes very unstable. I would not recommend it. I would say that if you are thinking about this you should have a good base for that truck to run on.

Question:

It can't be used on hills at all?

Response:

I would not try to stack a boat at 30 feet on a hill. But you can carry it up a hill. The problem is when the truck is on a hill and the operator has to lift that boat way up in the air.

Comment from Neil Ross:

I have talked with operators in Florida and other places about how to deal with the problem of everyone going out or coming in at once. Initially is starting up there is kind of a break-in period, when you determine what kind of demands you can tolerate. So you set certain rules and limitations, generally most operators allow one trip in and out a day, unless there are extenuating circumstances. To accomodate the real early or late trips of fishermen, you can have a dock for them to tie up to or you take their boat

out the night before. There will be problems initially. And there will be certain times when requests will bunch up. But, in the course of the summer they will be spread out. Most weekends you will have to have some space available along a dock, or a bulk, or some moorings for them to tie up to.

Comment from Bill Walters:

Some of our operators on Long Island have figured out 33% capacity at the dock is really needed if you want to get rid of jamming up at peak periods. And also, some of them have placed a couple of racks by the lift area, open racks, so when a lot of boats come in the operators just place them into these outside racks. When things slow down they put them into the building for normal storage.

Question:

What about the extra slips you need to accomodate this operation. You could be renting those to someone else.

Response (Neil Ross):

For 150 boat stack system, except on a few peak periods, I think you could probably get away with having additional tie along slip space for 10 to 12 boats. When they pile up they are just going to have to raft or wait. I know many marina operators on salt water who sublease slips when boats are gone on long trips. And some of the operators share that income with the person who originally rented the slip. Everything can be a problem when you are dealing with people. But, if you are reasonable with them, then most of them will be reasonable with you.

Comment from Alex Toth:

I think it is mainly a matter of educating boat owners. Most of the people I've talked to have faced the problem of jamming up. But generally, they only face it once because the boaters realize they can't really all come in at 12 o'clock, so they adjust themselves and some will come in before 12, some a little later.

Generally the people I've talked with have said they will post a notice well in advance of a holiday. They ask their customers to make reservations to have their boats put into the water, and to be taken out again. The customers generally follow that rule, so the marina operators don't get 150 people who want their boat in the water at 8:00 in the morning.

Question:

Boaters are not very good about watching time. What can we do about people who aren't prompt?

Response:

You have to establish limits and stick to them. I think your management style, your personality, your local physical situation, the demand, will be the governing factors.

Question:

Neil, you said insurance rates should be reduced. How do companies feel about the risk of lifting these boats up and also storing 200 boats with tanks full of gas inside one building?

Response (Neil Ross):

The insurance people I've talked to, prefer the tanks be full rather than a third full. If you have more than 250 boats in a building they say fine but you have to have a concrete fire wall between the two racks.

One problem people have had is the dripping of the outboard motor, on the boat underneath, while in storage. It is a serious problem, but a heavy plastic bag placed over the motor can remedy this.

Question:

If you are using the building only for winter storage, what could you do with it during the summer?

Response (Neil Ross):

You could use it for repairs or as a store room. If you are going to have the racks, why use them only part of the year? If you can't get year round use out of every piece of equipment you have, you are losing money, losing your potential. You may not have 100% occupancy on a rack, but any percent occupancy is better than no percent occupancy.

PERMITS FOR EXPANSION AND MAINTENANCE

Paul Gaume, Permit Section
U.S. Army Corps of Engineers, Buffalo Office

The regulatory functions of the Corps of Engineers are performed by the Permits Branch. This Branch is responsible for the administration of Sections of the River and Harbor Act of 3 March 1899. The most used section of the Act is Section 10 which requires that a Department of the Army permit be obtained prior to the commencement of any work in, under or over navigable waters of the United States. The only exception is the construction of bridges, causeways, and aerial pipelines. These structures are the responsibility of the Coast Guard. For administrative purposes, the Chief of Engineers has established and approved a list of waterways where Federal laws apply. I will touch further on this, later in my talk.

The Buffalo District extends from Marblehead Light in Ohio, near Sandusky, to the International Boundary in New York. It includes U.S. waters of Lake Erie easterly of the light, the Niagara River, Lake Ontario, the St. Lawrence River and N.Y.S. Barge Canal System. Corps Districts are established on watersheds, therefore all waters draining to these major bodies of waters are within the Buffalo District. I suspect Lake Ontario and possibly the St. Lawrence River concern most of you so I'll stay in this area. The jurisdiction of the Corps extends over the water only. Generally the Federal Government owns no underwater land. The jurisdiction over underwater lands rests with the Office of General Services of the State of New York. Federal Permits are required in Lake Ontario for any work that is performed or extends lakeward of high water elevation 246.8 feet, above mean water at Father Point, Quebec, International Great Lakes Datum. The jurisdictional elevation in the St. Lawrence River, of course, varies.

The current application form, located in the pamphlet, is a dual purpose form and was intended for use as applications for discharge as well as structures. The Refuse Act Permit Program was administered by the Corps of Engineers until October 1973 when the Federal Water Pollution Control Act Amendments were passed and our responsibilities were transferred to the Environmental Protection Agency. I might mention at this point that the pamphlet and application Form are being revised and we expect the new printing soon. The application must be accompanied by a drawing or drawings on reproducible paper. The drawing must be 8 by 10½ inches in size. They are the most important part of the application. If a good working drawing is submitted, we can commence processing immediately. Inadequate drawings will delay the processing because we will be required to write or phone for additional information. I would also like to stress another item that is an important part of the application and that is a phone number where the applicant or someone representing him can be reached between 8 a.m. and 4:30 p.m., Monday thru Friday. If we have questions, the phone is our quickest and most economical tool for getting the answers.

Normally, the processing period takes about 60 days. After the application is in complete order, a public notice is issued for a period of 30 days. It is mailed to agencies of the Federal, State and local governments, members of Congress, the postmaster in the area of the work for posting on

the bulletin board, adjacent owners and others that have expressed a desire to be included on our mailing lists. Also our Public Affairs Office distributes copies of the notices to the news media. The public notice invites comments from those concerned with the work. A reply to the notice is not mandatory, however, it is our policy to hold the application in abeyance until we have comments from the Federal Environmental Protection Agency and the New York State Department of Environmental Conservation. If no adverse comments are received, we can initiate action to issue the permit. If objections are received, we attempt to get the principals together to resolve the differences. Failing in this approach, we ask the applicant to furnish a rebuttal statement to the points raised by the objector. After all the facts are in, we review the file to determine the next course of action. The District Engineer has the authority to issue permits over objections not considered substantial. His decision will depend upon the nature of the objections and the amount of interest generated. Under certain conditions, he is required to forward the application to higher authority for review or, he may elect to forward it if he thinks a review by higher authority is appropriate.

It is the policy of the Corps of Engineers to conduct programs in an atmosphere of public understanding, trust and mutual cooperation and in a manner responsive to the public needs and desires. To this end, public hearings or meetings are helpful and may be plugged into the processing procedure if there appears to be sufficient public interest to justify such actions. Public hearings however, are not mandatory.

The final phase in processing is the issuance of the permit. Two copies of the permit are forwarded to the applicant for acceptance of the conditions. Both copies must be signed and returned for validation by the District Engineer. When validated, the original of the permit is forwarded to the applicant. The permit has a condition indicating the work must be commenced within one year from date of issuance. The completion date is generally 31 December of any given year. This date allows the permittee to complete the work in three years plus the remaining months of the year in which the permit is issued. For example: work authorized by a permit issued today, must be started before 28 March 1975 and completed by 31 December 1977. If the work is completed in accordance with the approved plans, the permit remains in full force and effect and is transferable with the property as in the case of easements or other documents relating to the property. If the work is not performed, the permit becomes null and void. If the work is started but not completed within the specified time, the permittee should make application for an extension of time. This application should be submitted at least 6 months prior to the expiration date.

I have talked about permits up to this time, however, there is another authorization used by the Corps. This is an Approval of Plans or an after-the-fact instrument that approves a structure built without benefit of a Federal permit. The Corps has been taking a hard look at this type of authorization and we understand, in the near future, guidelines will be issued in the Federal Register to handle work such as this. We think the new requirements will prevent us from accepting a request for approval of an existing structure. I suspect that we will be permitted to authorize a structure built before a specific date and return application for approval of structures built after that date.

I touched briefly, in my opening remarks on the approved list of waterways considered navigable. The concept of what constitutes "navigable water of the United States" has become very broad through administrative and judicial interpretation. Navigable waters of the United States are those waters which are presently, or have been in the past, or may be in the future, susceptible for use for purposes of interstate or foreign commerce. These interpretations will result in an expansion of the list. The Corps will be conducting studies soon to determine the extent of our jurisdiction.

The Corps sometimes is asked to comment on the design or in some cases assist in the design of a structure. We will comment if we think the structure is not adequate, however, we will not offer assistance in the design. There are too many variables that must be considered and more importantly, assistance would put the Corps in competition with the private sector. We suggest that the proponent of the work seek the services of a competent consultant or contractor. I might add, that in the processing of the permit there are no fees involved for the administration of the work.

The Secretary of the Army acting through the Chief of Engineers has the duty to prescribe such regulations for the use, administration and navigation of the navigable waters of the United States as in his judgment the public necessity may require for the protection of life and property or of operations of the United States in channel improvement. An example of this would be speed regulations or restricted areas; such as the area immediately upstream from Niagara Falls. Vessels are prohibited from using this area without the written consent from our office.

PERMITS FOR MAINTENANCE AND EXPANSION

Robert Harding, Permit Officer
N.Y. State Department of Environmental Conservation

The state's definition of navigable waters is considerably different than that of the Federal Government. What the law says is very plain; if water is or can be used by the public with boats, it is navigable. If it is navigable it falls within the provision of the Environmental Conservation Law requiring permits prior to excavation, fill and construction of docks over 40 feet long or which have water deeper than 4 feet at their outer end. Unless there is someone hiding in here who doesn't operate a marina, you are all covered by this law. If you are operating a marina you are in a navigable water as far as the State of New York is concerned. If you are going to excavate, fill, build docks, whatever, it is wise to check with us.

Paul Gaume mentioned state owned lands under water and the fact that the State Office of General Services generally has the power to say whether you can use them. That permission has to be in hand with an application for a permit to either fill or excavate, or do anything else to those state owned lands. Basically the state law says, if you want to make use of state owned lands under water, there is a procedure by which you can try to buy them, or get an easement over them. Our only involvement is to comment if we have objections. The Department of Transportation and the Office of General Services handles all of the rest. The lands have to be mapped - it is just like buying any other property. You would be expected to pay the fair market value for that land even though it is under water.

Our permit system is very similar to the Corps' in terms of content of applications. Basically we want to know only what you want to do. Give us some dimensions and a location. Fortunately we have the option of requiring publication of your intentions, it is not required, but rather is up to the discretion of the local permit agent. If he feels it is a significant enough project, then he may require publication. Generally it is a one time affair; one time in the newspaper, two at the most. Then we may take it upon ourselves to inform others, depending on the project. Publication is not an absolute requirement, particularly where navigable waters are concerned and marinas.

We inspect the site for every application we get. Somebody goes to the site and determines whether the project is, in fact, a reasonable one and in the best interests of the state. We inspect them again after the work is done.

I am saying this all very loosely because that is what was happening on a very regular basis before June 23, 1972. Since that time, nothing has been happening very regularly at all in our office. We are backed up further than I care to admit publicly.

There is no provision for issuing a permit for work already completed. If you have done work without a permit you have committed a violation of law. The only question left is whether you will be prosecuted for that violation. We just don't issue permits after the fact. The law doesn't allow for it

and there is really no advantage to it, unless there are some changes we see to your advantage or the state's advantage. If someone has poured a concrete seawall, there is no point in applying for a permit. It is already in.

The state is broken into nine regions for administrative purposes, each operating similarly. This has allowed us to give reasonably good service on applications. Under normal circumstances, four weeks is enough time for us to issue a permit, assuming we get with that permit the sort of plan that shows what you want to do, has some dimensions on it and allows us to find it. Up until this rash of applications, which both of our offices have received, our cooperation has been very good.

Discussion
(with Gaume and Harding)

Harding: The Corps has also been in the business of certifying or requiring an applicant to certify that a discharge will not abrogate state board water quality standards. This became a problem because a district court in Washington ruled that was illegal. The Corp of Engineers said, well okay, but we are going to continue to take applications and we continue to get requests for certification. I don't think I could really certify to the Corp or anyone else what you are likely to do in the next six months. This is a sticky problem but it shouldn't affect an individual's application for a permit to excavate or fill in navigable waters, construct docks, whatever. If you have a problem, the thing to do is get on the telephone.

Question: I understand you have a permit called a moritorium permit, at the present time, on navigable waters.

Response: This applies to the marine district and is a very different situation, because the legislature saw it that way. The law that I was talking about went into effect Jan. 1, 1966, and didn't cover the marine district - the two counties on Long Island. That was just recently changed, and they did declare a moritorium down there. (Harding)

Question: What do we do now?

Response: If you apply and they tell you you can't have a permit you either say okay or you take your chances, I guess. I am not personally familiar with the moritorium, but I know it's causing all sorts of grief. What I was talking about previously was fresh waters. (Harding)

Bill Walters: The office for the marine district is issuing some permits. They are snowed under by the volume of applications that have come in and are scrutinizing them quite closely. They are not really sure where they stand legally, so they are being extremely cautious.

Question: We are located on the end of Lake Ontario, and now have to contend with the Eastern Lake Ontario Commission. Where does this fit in with you?

Response: They do have review process, but we have no instructions to send them anything. (Harding)

Question: I wondered about that because I saw all of the Corps applications in the newspapers, and I saw none of yours and I saw none of the St. Lawrence Eastern Ontario.

Response: We have rarely required publication in the last two years. Generally we take the time only for a really big project or when we are reasonably sure there are going to be objections. (Harding)

Question: Does the Department of Environmental Conservation have precedence over the Hudson River Regulation Board?

Response: I'm guessing, but in any law, the most specific law governs and I am reasonably sure that the Conservation Law would be the most specific law when it came to excavation and fill in the Hudson River. (Harding)

Question: I'm referring to a land bound body of water, the Great Saganaga Lake. It is owned by the Hudson River - Black River Regulator.

Response: We have no jurisdiction if it is privately owned. That is a privately owned body of water which is specifically excluded from the law.

Gaume Response: I can't speak for the Corp, it's not in our district, but I suspect our regulations would not extend to a private area. For instance, an area where a body of private water is connected to a navigable waterway, would be exempt from the law except where it connects to the channel.

Question: This is a state run operation. They bought the land and created a reservoir, for the purposes of generating power and controlling flood waters. The state owns all the shoreline and only gives us permits to go across that shoreline.

Response: That's an unusual situation. The law says a number of things; first even though water may be navigable, if it's privately owned we would have no jurisdiction. The state does not issue permits to the state. In other words, we do not exert jurisdiction over another state agency and tell them what they may or may not do. (Harding)

Question: So they would be subject to the authority, whatever it is then?

Response: Private individuals along the shoreline would be subject to whatever regulations dictated by the state authority with jurisdiction over that area. If it is state owned, no one may do anything to the shores without the permission of the agency that owns it or has jurisdiction. (Harding)

Question: Are you speaking entirely about new construction or rebuilding a dock that has been there for twenty years?

Response: New construction, reconstruction, repair. When in doubt ask. Most times we are happy to say yes, do it if we can, but we want to at least have an idea of what's going on. (Harding)

Question: Even though the dock might be floating?

Response: A floating dock? You would repair that on shore, would you not?

Question: No, in this case we would probably repair it right where it is floating.

Response: If all you are going to do is replace boards or floats or something like that, I suspect the local permit agency would grant permission.

Question: In as much as it is still floating, I would have to still obtain a permit from the state in order to rebuild it? It's been there 26 years and it's getting soft.

Response: It's a dock, and, the law says docks are within jurisdiction, floating or otherwise. (Harding)

Question: Does restoration of storm damaged shoreline call for a permit to put it back in its original condition?

Response: Yes sir. (Harding)

Question: Why should that be, if I only put back what has been there?

Response: Because the law says so. You might just put it back where it was, but I could show you some instances where people make large changes.

Paul Gaume: Bob mentioned that the state has no after-the-fact way of approving something. I think the point we are trying to make with the Corp is that a structure is illegal in the water until it is authorized. The reasoning behind that is if an unauthorized structure in the water is hit by another boat, resulting in damage to property or perhaps loss of a life, a smart lawyer could use that evidence to make it rough on you.

I'd also like to comment on making repairs. If there is a permit on file in our office and the structure is not going to be changed substantially or does not extend further into the water, we will give you a letter indicating we have no objection to you making those repairs. This is what we want you to do.

Harbor lines is another area requiring separate procedures. Structures shoreward of the harbor line do require a permit.

The law states a floating dock does not need a permit, unless there is more than four feet of water deep or it extends 40 feet from shore.

Getting a permit is not that hard. We are not trying to make things difficult for you.

The only authorization we get on spending is through Congress. It has to be authorized by Congress and finally the money has to be appropriated by Congress.

Question (To Paul Gaume): Have there been any provisions for sea wall damage caused by extreme high water in the Great Lakes? Are repairs government subsidized or cared for in any way?

Response: The Small Business Association will grant up to \$5000, the rest you can borrow at a 1% interest rate. (Gaume)

Question: Under what situation do you get a permit from which agency? Do you have to get both? What about a marina on an inland water such as Oneida Lake?

Response: You need a permit from the Corps of Engineers. We exercise jurisdiction over the barge canal system. (Gaume)

Bob Hardings: I have personally never been aware that the Corp had any jurisdiction in Oneida Lake, and we (DEC) have accordingly been accepting applications and issuing permits in Oneida Lake for as long as I've been around.

Question: I can prove I own all the land under the water in my marina, and I want to do something on the inside of my outer piece of land. Do I need a permit?

Response: Yes. Once you do any work below mean high water mark you need a permit, regardless of who owns the land. We have a fluctuating elevation on all of those lakes to deal with. We want the structure to be generally visible under normal times when there will be small craft on the waters, eliminating chance that it would be awash when there are vessels out. We like to see the structure built one foot above this elevation. Granted there will be times when the structure will be awash but generally boats wouldn't be out then. (Harding)

Question: Could you explain the 4 or 40 foot regulation?

Response: Any dock that is more than 40 foot long or whose outer end rests in water more than 4 foot deep at the average low water requires a permit. In other words, if it is 40 feet from the shoreline into the water it requires a permit. An 8 foot dock might require a permit or it could be longer than 40 feet but not extend into the water 40 feet, therefore it might not require a permit. (Harding)

Bob Harding: There are two points where the permit process can get bogged down. First we often receive applications that don't give us enough information. We don't know where the property is, or what the proposed work is. All we are asking for is a line drawing, something simple with dimensions on it.

Question: Would there be a possibility here of making a sample application form?

Response: We send samples with the application forms. The other time applications get slowed down is when we have a project that has run into opposition. For example, if you propose to fill 80 feet out into Lake Ontario, or Oneida Lake, or one of the Finger Lakes, I can reasonably guarantee you are going to run into a lot of opposition. And if you get the permit at all, it is going to take a long time. (Harding)

Question: My marina was destroyed by Hurricane Agnes and I want to rebuild, but I'm having difficulty in getting an easement, even after being there for 26 years.

Response: What you are saying to me is that you had land that was washed away to the point that the State is now claiming ownership? (Harding)

Question: I had 163 docks destroyed, but I had no land washed away. I'm only going to replace the docks, but they are apparently on State land, and the Office of General Services is requiring me to file an application.

Response: I don't think you have to become involved with the Office of General Services. Yours sounds like an unusual situation. (Harding)

Question: Suppose your deed reads to a certain specification; then what do you do?

Response: The state isn't likely to argue with that. The law says you have to have a permit prior to excavation or fill below the mean high water margin. It doesn't say anything at all about property ownership. And the state doesn't claim property ownership at that point. Generally, in those lakes that are regulated, the State Attorney General will defend title to the people of the state of New York up to the mean low water elevation. But please don't get that confused with needs for permits, because it's not the same at all. Ownership really has nothing to do at all with the jurisdiction and needs for permits. (Harding)

Question: During flooding, if a large quantity of land is washed away, does it revert to the state if it has come under navigable water?

Response: If this change of wash is a gradual (erosion) occurring over a number of years, the ownership does revert to the state. But, if it is lost due to some kind of disaster, a person has the legal right to fill back to the point of his legal ownership of the washed land. He'll still need a permit. (Harding)

Question: When I bought my land on the St. Lawrence River, 28 years ago, my lawyer said my deed stated I had riparian rights and that meant I owned all the property whether it was covered with water or not up to the Federal line.

Response: Riparian rights usually do not mean that. Riparian rights, on waterfront, mean you have the right to expect the water that goes by you will be in the same quality and quantity as it was when it went by your neighbor. If this has changed that, then your riparian rights have been infringed upon. (Harding)

Question: If I have riparian rights, does that mean I can build without a permit?

Response: The legislature said no. They do say that you need a permit, and that we (DEC) have a responsibility to look for three things before we issue a permit; 1) Is the project reasonable and necessary? 2) Is it contrary to the best interests of the people of the state? 3) Is it likely to cause

unreasonable or uncontrolled damage to natural resources? If the answers to those all come out positive, then we issue a permit. We have no alternative, we are obligated to issue a permit. If we think it shouldn't be done, then we are obligated to send the application to Albany and ask for a hearing. That's all we can do. We can't refuse to issue the permit.

Response: On Long Island, the towns own the bottom of the water in most cases. But the courts have interpreted riparian rights as meaning a waterfront property owner has the right to put a dock out into the water for his use of this water. He still has to get a permit from the state, but, the town cannot charge him a lease or a fee for putting the dock out.

(Bill Walters)

OPERATOR PANEL: "HANDLING WASTE AT OUR MARINA"

Ray Cooper
Cooper's Marine
Baldwinsville, New York

Dave Miller, Brokerage Manager
Anchor Yacht Sales
Sodus Point, New York

Royal LaLonde, President
Hutchinson's Boat Works
Alexandria Bay, New York

Ray Cooper:

At dinner we were discussing the trials and tribulations of handling sewage. I think we have all had quite a few things happen to us that turn out to be funny and some of them not so funny. It is a real problem for the boating public and for marina operators.

We are all faced with the same situation; by law people who use our marinas have been compelled to put in holding tanks, sewage systems, or have Monomastic toilets in their boats. We, in turn, have to pump these out.

In our particular area, just outside the village limits of Baldwinsville, we have no sewage system; we use septic tanks. I own very little property and percolation tests indicated we couldn't use a septic tank so we had to put in some kind of holding tank of our own. Our docks are approximately 75 feet from land, or the point where we normally gas up these boats, and it became quite a problem to design a holding system.

Through our oil company, I was able to purchase a second-hand 4000 gallon unit gas tank. We also were able to purchase a model sludge pump. It has a ten inch diaphragm in it, a one horse power electric motor and uses four inch plastic tubing. We put the pump on the dock. There are two 25 foot flexible lines, and where we connect into the boat we have a 3 foot clear plastic line next to the valve so we can see what we are pumping. Initially we hooked up the system above ground and had it working so it would pump water out of the river. But the water went into the holding tank so we sank the holding tank in the ground.

We had a number of problems in determining whether we needed a permit. The village officials I contacted could not agree on whether the tank should be under ground or on top. About the same time, a state official came along taking a survey on geographic surfaces. He asked to see our pumpout system and said it was fine. From then on I have used it, but to this day I still haven't had approval from our local township!

To make a long story short, we have it, it works, it is homemade. At the time we put it in, I had about \$3500 invested plus the man hours involved in the installation. It has to be grounded electrically of course. I

charge \$3.50 for a pumpout. It costs us about \$3.00 to do it. If you take any kind of depreciation whatsoever, your flexible hoses are good for about two seasons. In addition we have to have the "honey wagon" service come in. It costs about \$50 to have a 1350 gallon pumpoff. As I said before, we have a 4000 gal. tank so I allow the service to pump this off a couple of times a year, whenever it needs it, at their convenience. We try to get pumped off at least half way prior to the fall so that the tank won't raise off the ground in high water. This, of course, is the biggest part of our cost.

We have had some problems in pumping individual boats. I am not against house boats but it seems we have had a lot more trouble with them than with other boats. I think it is because of the number of people on board these boats. You find, if their toilets are not pumped out weekend by weekend use, sludge starts to build up, sewage gets hard, crystalizes, and we have to take a water hose and piece of copper pipe, get down there with a ramrod effect and loosen it out.

On all boats we pump the tank completely, fill it right to the brim, pump it again at least half over the next time. We actually clean them, flush them, and put a chemical in them in about 15 minutes.

Dave Miller: Anchor Yacht Sales, Sodus Point, New York.

I am not an owner of our marina down at Sodus Point, so I have surveyed the different marinas on Sodus Bay to get an overview of how waste is being handled. The marinas are listed in numerical order to protect the innocent.

Marina No. 1, has a pumpout service that was started in 1972. They use the small electric (Jab Scope) pump with flexible hosing both to the boat and to the pump. It is a portable unit that can be carried along the dock for the convenience of the customers. The 250 gallon holding tank is mounted on a snowmobile trailer for easy accessibility. In other words, they can take the trailer and wheel it right off the dock to where the pumpout truck can empty it. Charges for this system at this particular marina are \$15.00/season for regular customers - approximately 5 pumpouts for the year. If transients come by, they are charged \$3.50; more often they are told the service is not working, go some place else.

Marina No. 2, has a hand operated pump connected to a 275 gallon holding tank, again mounted on a trailer. The service has been provided to regular customers for the past 3 years. Their rate is \$4.00 for a pumpout.

Marina No. 3, does not have a system. They have not had one in the past, but are considering one for this season. At this time they have not made a firm decision about installing a system, or what type it will be.

Marina No. 4, the owner stated to me he has no plans to install a pumpout system at this time.

Marina No. 5, the owner feels it is a necessary service and plans to from their dock to available land space would have made the cost prohibitive.

He is now planning to install a 500 gallon holding tank at the end of the dock. The owner feels he will probably use an electric pump and it will be strictly self-service. No fees have been set at this time but it will work on the honor system.

The last marina on Sodus Bay happens to be the first to offer a pumpout service. They use an instant diaphragm, hand operated pump. Basically it is a small unit that mounts on the dock with a lever. One complete stroke theoretically equals one gallon. The pump is located on the main dock and is connected to a 2000 gal. holding tank via $1\frac{1}{2}$ inch plastic pipe. The system seldom breaks down, although diaphragms do have to be replaced periodically. It is relatively easy to operate and simple to install. Rates for pumpouts at this particular marina are \$2.00 for self contained units, and \$3.50 for holding tanks.

On Sodus Bay, we do have some problems with pumpouts. Most of the marinas appear to be using a small tank, probably because of a lack of available land space. Geographically it is a flat region with the water 1- $1\frac{1}{2}$ ft. from the surface under ground, so it is difficult to bury a tank. Because of all the residential cottages, neighbors, etc. it also is difficult to put a big tank above ground with odor control. Those marinas that do have land have it at such a distance from the logical spot on the dock for the pump out that the cost would be prohibitive. Dealers feel that an automatic or coin operated system would be too expensive to install so no one has started that. A hand pump takes a lot of time. You can pump a head in a matter of minutes, however, to do a good job you may spend 15 minutes or more. The unit should be backflushed to get a thorough pumpout.

There are some possible solutions to our problem. As I understand it, the State of New York and the village of Sodus Point are allegedly joining hands in a venture to purchase land at Penn Central Railroad for a government owned and operated facility, in conjunction with a badly needed public dock. Twenty thousand dollars is now available for the project, but because the Penn Central R.R. is bankrupt, legal proceedings could go on for several years.

Also, Sodus Point is on the verge of getting a new sewer system. This is a project estimated to cost 4.8 million dollars, to serve 1200 permanent residents. They are supposedly going to start digging this fall; with scheduled completion date two years from now. There is a problem in that no one has decided exactly how they are going to accomodate commercial customers. It is conceivable that if a marina with a frequently used pumpout facility were to hook into the sewage system, the cost would be prohibitive. In that case the marina dealer would probably go back to using a holding tank and having the sewage hauled away.

Most of the dealers I spoke with agree on the following points: Generally speaking, waste disposal is not a profitable operation. Perhaps with 6 marinas on the bay and a yacht club, if there were one marina with a good system, conceivably that marina could actually make a good profit doing this. As it is now, most of the dealers get involved in boat storage, and when you haul the boat you eventually have to pump the head. Thus every marina really has to have some type of pumpout system. However, most dealers would prefer not to get involved.

Many of the operators feel that the law itself is probably not needed at this time. On the other hand, those who have a close marine basin, feel since they have had holding tanks the water quality has shown some improvement.

I think the general feeling among these operators is they would happily tell a customer to take his boat on a pleasant 14 mile cruise to Fairhaven Bay where, for 50¢, he could use the state facility. Thank you.

Royal LaLonde: President, Hutchinson's Boat Works, Alexandria Bay, N.Y.

Our association with sewage handling began in 1966, when the Roberts Hardware Co. had a meeting in Syracuse with Conservation Department people, N.Y.S. Health Dept. representatives and people in the marina industry. They told us we were going to be obligated by law to take care of the sewage and other solid waste from boats. We operated a marina, so we took them at their word and put in a pumping station. Fortunately we could tap into the village sewer. At the time the village had no sewage system so we were advised by the Health Department that once we delivered the goods to a municipality it was their concern to build sewer lines and we didn't have to worry about it from then. So on that basis, we put a pump on our dock (a Gorman rubber diaphragm pump with electric power) and ran a 2 inch plastic line to the village sewer line, about 200-300 ft. We have had almost no problems with the pump; the operation has been very smooth, relatively trouble free and not objectionable to operate.

As Ray Cooper indicated, the secret of taking care of the toilets and the holding tanks is to thoroughly clean them, flush them with fresh water and use water under pressure to break up the crusts and scum that form in the bottom of the tanks and toilets. We empty them out first, rinse them, then fill them with the chemical bowl cleaner. It is very little trouble. We subscribe to the service of a rubbish hauler and so have provided additional solid waste containers along our docks.

We have encountered many objections from boat owners because as far as we know there has been absolutely no enforcement of the legislation requiring holding tanks on boats. Some people come to our marina with the old type toilets and we have to tell them not to use the head in the harbor because all the rest of the people have a holding tank facility. In the last couple of years some of these boaters have gone into Canada with the old type toilets and they have been quickly told, take it back, don't come back unless you have a retention facility on your boat. It is annoying to the Canadians and it is very annoying to the people who have followed the law. Most people feel that if there is going to be a law it should be enforced.

Discussion

Question: Does anyone have any idea what the self-service units do cost?

Response: The state paid about \$17,000 each for its pumpout stations. To use them you put two quarters in, push the lever in (you are on a timer), it pumps off. You manually hold the tube in place. It works well but unfortunately, as you all know and agree, we can't spend that amount of money for that type of service. (Miller)

Question: I have also heard there is a lot of vandalism on these, that people sometimes cut off the hose ends and carry them away with them. Has anyone heard about that type of activity?

Response: I haven't heard anything. The 50¢ unit in operation at Fairhaven, most people put a dollar in it, and go through the system twice. One of the marine dealers on Sodus claimed he could purchase some sort of coin operated electric pump for \$1500. He decided against investing even that amount of money because he felt there would still be problems. Therefore, he will use strictly a manually operated pump. The state parks using an attendant have established a price of \$2.50 per pumpout throughout the state. (Miller)

Response: We have found in our operation, that the pumpout can be done while the boat is in for fuel. It is a kind of a doubling up of the time. As Ray said, it takes approximately 10-15 minutes to do a good job. You can pump them out in 5 min. but you can't clean them. Usually it doesn't take any more time to fuel and pump out the boat than it does to just fuel it. Some of our customers will assist the operation. (LaLonde)

Response: I figure my actual cost is \$3.30; based on the 71, 72 and 73 seasons. We averaged 73 boats a month in those three years. There is no way in the world I can make money. (operator in audience)

Response: In 1967 it cost \$1000 to put my system in. The first year I took \$12.00 in revenue, the second year I took \$18.00! (operator in audience)

Response: I have to beg to differ with everybody that has spoken. I feel over the years we have made a dollar on our pumpout service. The fuel pump man is not just sitting idle and getting paid for it. The customer comes and pays for a pumpout, fuel, a chemical if he wants it. It cost us \$6000 to get hooked to a sewer system. I feel in 4 or 5 years we are going to overcome that \$6000 expenditure and be able to pumpout these boats at a profit.

Somewhere in this marina business we have to come up with our cost factor, to the point where we make money on renting an individual a slip for the year and not depend on selling him a boat or anything else to go along with it. A marina and its services should pay for the overhead. If we sell a boat, this is a different operation. But I feel we have made a dollar on our pumpout service and we will continue to do so.

Once you have the system installed, it doesn't require any more labor - our summer staff often sit around with nothing to do. I think people who don't want to take care of those who need their tanks pumped are missing a good opportunity. (operator in audience)

Question: Do we have any response to that? Here we have a marina operator who takes the summer excess labor and used it for a profit making item.

Response: I am in agreement with Mr. Cooper, that there is no money to be made in handling pumpouts. I have an installation, and for the amount of time and money invested it has not been worth it. The only reason I am going along with this is to protect my customers, and because the State of New York requires holding tanks on boats. My customers came to me and said what do I do with it after I have it on? So, to protect my customers I put in a pumpout service at my own expense. The State of New York didn't provide 5¢. Now the installation is in, I'm serving my public to protect my own interest, but there was no money to be made. And here we have a system that is forced down our throats by the State of New York with no compensations. If anybody here, other than this one gentleman, can prove it is a money making venture I would like to hear about it. (operator in audience)

Response: I also feel a pumpout service is an additional source of income. It might not be if we had to pay people to pump our tanks. We have had just one breakdown with our pump. (operator in audience)

Response: I feel I am getting the most money for a pumpout, \$4.50, of any one here. I have heard a dollar, two dollars, and I don't think that anybody can do it for that kind of money. (operator in audience)

Response: We analysed it and we figured we could make a profit at \$3.00, in conjunction with the fueling. If there is any extra labor involved, in bringing boats to the dock for a pumpout we charge for it. So, it has to be a money maker for us. We can pump them out in 8 minutes. We use our dock attendants on slow periods. (operator in audience)

Response: The secret, as I see it, is to locate the pumpout facilities near the gas pumps so you can do the two at the same time. When I set up I couldn't do this; the gas pump is one place and the pumpout station in another. (operator in audience)

Response: Having the pumpout and the gas on the same dock makes the difference. Pumping provides additional revenue, because it is being done while the gas hose is run.

The problem we have found is that there are about four different types of deck fittings, and you have to have adapters for each. (operator in audience)

Response: There is a simple way out of that. It is a tapered rubber nozzle that fits all. The Perry Miller Company in Syracuse, a new wholesaler, has literature on them. (LaLonde)

Response: I feel the problem we have here is a moral one. Do we want to help people go along with this law? This gentleman here has his pumpout and gas located together and is making a profit. That gentleman does not, and he is losing money. So I think maybe we as a body here should incorporate into the proceedings our feelings on these points: (1) Should we get involved morally? (2) Do we have to legally? and (3) Should we establish a universal charge? Perhaps if everybody here agreed on a rate of \$4.50, everyone else would go along. (operator in audience)

Question: How do you feel about a universal fee? Would this work?

Response: I don't think we could have a standard rate, our costs are all different. But I do feel if we are going to lose money it is not worth it. We have to be able to make a dollar. I think this is one of the major (from points of the meeting. We should expect a return on our investment. audience)

Question: As a result of the meeting we attended in 1966, we understood that we would not be able to get a license to sell gasoline on our gas dock unless we had pumpout facilities. Whatever happened to that law?

Response: I don't think there is any requirement, at this time, that a marina have a pump. (operator in audience)

Question: Well that is what we were told at that time. They showed us a copy of the law.

Response: I think we ought to talk about now, not 1966. It may be that people were misled but at the current time there is no such requirement. I think that ought to be made clear. (Bruce Wilkins)

Response: I guess the law says that marine waste cannot be discharged overboard. (operator in audience)

Response: The Coast Guard has been given authority to enforce a similar law for all federal water systems. This is the Federal Register promulgation of their mean sanitation device licensing system I think you people ought to be aware of. Many people here might like to make some input to that federal law because this proposed federal regulation is for waste holding facilities. (Wilkins)

Question: You could run into another problem if the federal regulations differ from those of New York State. Are there some components in this law that would be troublesome to you in handling the waste disposal?

Response: From what I can deduce, they are going along the same lines, requiring either holding facilities or some very sophisticated sewage treatment devices. The two requirements are; the device must prevent the overboard discharge of any waste, or be capable of providing the degree of treatment that will reduce fecal chloroform bacteria to no more than 1000/100 ml. and prevent the discharge of any visible floating solids.

Response: We still would have to abide by the New York State law even if the federal law does say that. (operator in audience)

Response: The thing I think we should be watching out for is a new head law. Nobody has said anything about it at this point, but think what it is going to mean if we have to put in holding tanks large enough to catch all of the drainage from the galley sinks, showers, everything else. (from audience)

Question: There is at least one lake in New York State now where they allow nothing overboard, Lake George. One of the problems would be on a boat, what do they do with the shower water, the galley sink water, the sink water in the head?

Response: We have houseboats with a 150 gal. water supply on it, which means if you are going to catch all that water someplace you are going to have to have a 150 gallon holding tank in it. (operator in audience)

Question: One more item, where do you pump your bilge water?

Response: Effective July 1st, there is a new federal law which states, any boat 26 feet long or over, be it power or sail, with an engine in a closed compartment, cannot discharge any water from the bilge of a boat that would leave any trace of an oil slick on top of the water. So, theoretically, a person could run a brand new boat for 20 or 30 hours and have the occasion to add a quart of oil. If the dock boy was sloppy and dropped just a couple of drops of oil in the bilge, and it mixed with some water there, the Coast Guard could come inspect the boat and find a little trickle of oil in the surface, the boat owner could be nailed for a \$5,000 fine. Besides that you have to have a placard in your engine compartment (5 x 8) that states the regulation. (Neil Ross)

Question: What alternative does this law give for disposing of the bilge water?

Response: None. It says no spillage. (Ross)

Question: You said that law is for boats 26 ft. and over?

Response: Yes, and \$5000 is a lot to be socked with. Whether the Federal Government or anybody enforces this remains to be seen. But in servicing your customers, you have an obligation to help them comply with the law, so you can sell them oil absorbant materials. Some you can just tack or set in your bilge and they will absorb the oil from the bilge water. You might investigate this with your wholesalers and see if you can stock up on these materials because people will have to try to comply and that is the only way that they can separate oil from water in bilges at the present time. (Neil Ross)

THE VALUE OF ORGANIZING FOR ACTION

Robert D. Kunzman, President
Campground Operators of New York (CONY)

I wear several hats, one is the white hat of the President of CONY (Campground Operators of New York); another is a black hat my co-workers call my deacon's hat. Living up to the image my deacon's hat confers on me, there is one thing I would like to preach to you today and that is, "Repent all you streakers for your end is in sight" or should I say, "Organize all you businessmen or your end will be in sight."

Just recently my son, John, surveyed the Broome County area hotels and motels about a proposed 2% occupancy tax. Although the tax was presented to the County Legislators as if it had no apparent opposition, the survey showed that more than 70% of area Hotel/Motels were strongly against the tax. Within one week my son organized a strong opposition and halted the tax which was to be voted on that next Tuesday. Without such organization this silent majority would have accepted a tax that only a handful of large downtown Hotel/Motels wanted.

Individual efforts are futile. You've just heard what almost happened. Each single owner when questioned about the proposed tax indicated that nothing could be done and it would be passed as a matter of fact. They didn't want to collect this tax, but felt they didn't have any say. Even those few that took the initiative to express their thoughts on the matter contacted the wrong people, thus their efforts were virtually useless. If these people had been organized they would have realized they had a common feeling about the tax and a spokesman for the group could have presented this objection to the legislators and news media. As it was, my son took the bull by the horns and quickly organized for the cause.

The power of a well organized group is almost unsurpassable. A good organization can be instrumental in either supporting or combating legislative action. It can work with governmental and other agencies to set up standards and give recommendations where an individual would have no influence.

But let me make one thing clear. Members of the organization should work together for the benefit of all and should take a definite stand, otherwise the group will have no more pull than an individual. On controversial matters, where opinions vary among the group, a discussion of the matter should be followed by a vote to establish the thought of the majority and as the majority goes so does everyone. This also eliminates the possibility of pressures from outside sources on individual members as happened to a few in the opposition to the 2% occupancy tax.

When something that will affect the business of the group is noticed by one of the members, the president or one of the directors of the association should be notified at once. The problem should be quickly researched and the group notified or called together immediately. The problem area should be clearly defined and explained to the group. The group should then take a definite stand on the matter. Active and willing members should volunteer to act as researchers and representatives on behalf of

the group. But group representatives should remember to use tact and know the correct action to take and the right people to contact. In addition make effective use of the news media. Encourage group action in the form of letters, calls, telegrams, etc. to the right people. Last but not least, fight effectively to the end.

I'd like to mention briefly that there are over 8,000 bills submitted during each legislative session in Albany and it is almost impossible to sift through all of those to find the few that pertain to you and your business. CONY has just hired a full time lobbyist to make us aware of those bills pertaining to us and representing us on such matters.

A group organization has many other obvious benefits. Besides sharing and discussing ideas at meetings, learning how to eliminate costly errors in your business, you may profit by purchasing necessary products with the group at lower rates because of increased volume. The expensive problem area of insurance - liability and health - can be dealt with through the group and may result in lower premiums and better coverage for individuals again because of the number of participants in the group program.

There are also many businesses that are willing to give members of a group a discount on the services or products they sell because they realize an increased volume of business through the group use of that service or product.

CONY for the past few years has been trying to establish a reservation and referral system which has excellent potential but is costly. A reservation system may not pertain to the marina industry, but I'm sure you can expand on the almost unexhaustive possibilities through group organization.

Promotion of members can also be accomplished through group organization. CONY has promoted its members through distribution of our CONY brochure and individual member's brochures in packets in camping shows, mailings and other means. CONY takes out ads to promote business for their members in trade magazines. Because of CONY's contract with Tra-Vel, CONY member's brochures can be distributed along the Thruway and Northway information centers at a reasonable cost to them. I'm sure you can come up with many more excellent ideas for promotion of your industry and members.

I'd like now to discuss the actual mechanisms of organization. I encourage you not to wait until later but take the initiative right now - at this meeting to start to organize. If you postpone, most likely it won't get done. Someone or a few have to take the initiative for the benefit of all to find a place to meet and to set a time. At this meeting a list of Marinas, owners or managers, their addresses and phone numbers should be compiled (not just those present, but all that are in New York State if possible.)

----- People should take the initiative to work for such an organization. won't come out without really drafting or prompting someone, the reason being "I haven't got the time.". How can you afford not to? If you don't have time for things pertaining to your own business, what do you have time for? If you have any inclination at all I urge you to seek a leadership position.

Based on CONY, I would think you would want to elect by membership vote, a President, Vice-President, Secretary and Treasurer. At a later date these four people could set up regions of the state and appoint a date, to adopt a constitution and a set of By-Laws by which your organization will run. A nominal dues should be agreed upon to cover mailing, phone and like charges and can be increased as the organization develops. Committees should be developed to set up standards, work on legislative matters and the like.

At least one full membership meeting should be brought together once a year. Smaller local meetings can be set up in the various regions. Meetings should not be social get togethers but rather business meetings where some fore thought is used, definite goals are set and an attempt is made to accomplish them by using an agenda. Do things, communicate, make new members feel important, give them a job and be interested in them. With a lot of work and as much cooperation and support you'll have yourself an effective organization.

REMEMBER, - UNITED WE STAND, DIVIDED WE FALL.

Discussion

Question:

What happened to the 2% tax that was going to pass until you got after it?

Response:

The 2% tax was thrown out yesterday. They have given up trying to put that 2% occupancy tax on the Hotel/Motel registration. We are happy about that. My son is not even in the Hotel/Motel business, but we figured if the county would tax the Hotel/Motel business a 2% occupancy tax on top of the 7% sales tax, that it was an imposition on all the Hotel/Motel business to collect this to give to the Chamber of Commerce. So what John was proposing lastly was that the motels that have the conventions should have the rooms that are used for conventions taxed rather than tax all the rooms in the whole county. There are about 40 Hotel/Motels in Broome County.

Question:

Presumably your concern was that obviously, they would next turn to campgrounds?

Response:

Yes, next step is you go from the Hotel/Motels to the camping industry.

Question:

You spoke of legislative matters, Bob. Is that where CONY initially started, on legislative matters?

Response:

No, CONY started out as a social group years ago, then became involved in compiling a brochure for advertising our businesses. But many members thought we ought also to have some representation in Albany to try to help ourselves, so we became an incorporated businesslike organization, and now

have a very strong legislation committee. We work with the Health Department, the Transportation Department, the Commerce Department, and have pretty good relations with them.

Question:

How did you feel about hiring a lobbyist? Is he a lawyer?

Response:

He is a professional lobbyist in Albany who represents the ski industry and other recreational businesses. We found him through our legislative committee and have just hired him. The lobbyist will look over all of the recreation bills and bring them to our attention for \$500. Then if we want him to represent us and talk with someone, we pay him \$25 an hour. And, if he has to go someplace for the day we pay him \$125 a day plus his expenses. We could elect to take him on as a full time lobbyist. For \$2500 a year he will cover most all of these things with no extra charges. We have to pay for his long distance telephone bills and so on.

Question:

So for \$500 he will give you a basic overview of what is happening in the legislature and keep the members informed on it?

Response:

Right.

I gave out an agenda. Whenever you are having a directors meeting you should have a written agenda. We used this one at our last meeting. We have the call to order, minutes of the previous meeting, business arising from the minutes, the treasurer's report, items of new business.

I brought this along to show you that to conduct a businesslike meeting your objectives should be clearly stated. You can't have a good meeting if you let everybody talk about anything he wants to. Everything has to be well organized.

AGENDA

CONY Directors Meeting

Binghamton Treadway March 17, 1974

1. Call to order
2. Minutes of the previous meeting
3. Business arising from minutes
4. Treasurer's report
5. Items of new business
6. Reports from committees (which were submitted in writing)
7. Remarks from visitors
8. Announcements (dates and place of next meeting)
9. Adjournment

ITEMS OF NEW BUSINESS

- 5a. Review Directorships and Tra-Vel replies
 - b. United Campground Service
 - c. Brochure timing
 - d. Show Booth minimum requirements
 - e. Reorganization of CONY
 - f. Lobbyist
 - g. 1974 Conference
 - h. Executive Secretary, Paid
 - i. Select potential 1975 officers and directors
- 5b. United Campground Service, Ed Bernstein
14 Franconia Drive (PO Box 1006); Nashua, N.H. 03060

Will distribute CONY directories for 3¢ and will report each month on the quantities and locations of disbursement.

We are required to ship brochures to each location using UCS schedule.

Ed sends a few (like 25) to RV dealers with a reply card for more as these run low. Even if they ask for hundreds, he sends a small number each time so they won't be wasted.

I sent 2 boxes on trial (1800). The next show is Westchester Boat, Sport and Camp Show at White Plains, N.Y.
Brochures 1500 due March 22, 1974
Then Commack, N.Y. 1500 March 29, 1974
Last - Woodbridge, N.J. 1500 June 3, 1974

March 21, 1974
607 785-9481

NEWSLETTER

This is a very important news letter and requires immediate action on your part.

HEALTH SURVEY 22 of our 106 Regular members have returned the survey. These must be returned because Howard B. Gates, III P.E. Chief of the Camp and Recreation Section is looking forward to meeting with our Legislative Committee on April 11 to discuss the final results. The form is lengthy and requires a little research, but fill it out to the best of your ability. Get it in early so that Ray Dumais can compile the data.

TRA-VEL PROGRAM For your information, CONY has a contract with TRA-VEL, Inc., who operates three information centers on the New York State Thruway. Basically they distribute the CONY brochure and your individual brochure to travelers who ask about camping information. If you wish to be in this program for 1974 send me the name of the best known city or attraction near you and the Thruway exit number which campers use to get to your campground (needed for the three transparencies at the center) along with a check for \$63.76. This offer is only open to our 106 Regular members listed in our brochure. I polled our participants and three wished to be eliminated because they were so far from the Thruway. Among the other fifteen members like John Schafer from Indian Falls Lake and Agnes Schibanoff from Windsor Woods, it was thought to be very beneficial and if CONY wasn't in it they would be in it on their own. I'm putting a deadline on this change of April 17th. Upon joining you will be sent the shipping address and amount of brochures required. Remember there are only 18 positions total and only three who wish to drop out.

REGIONAL MEETINGS Your directors have been holding meetings of which two are required each year (one of which may be held at the annual conference). At these meetings all campgrounds, members and non-members are invited. Also the CONY brochure is distributed along with other interesting materials.

DIRECTORS MEETING On March 17 a meeting was held at the Binghamton Treadway and action was taken to allow United Campground Service to distribute CONY brochures to a maximum cost of \$150 for 1974. One Thousand Dollars was authorized for the Legislative Committee use in obtaining the services of lobbyist Donald J. Boyle of Albany.

The mileage payment for officers, directors, and chairmen on CONY business was increased from 10¢ to 15¢ per mile effective March 15, 1974.

Also the 1975 membership deadline was set at October 1st with final payment to be made before final brochure proof corrections on November 20th. 1975 brochures will be ready for distribution in the first week of January.

REORGANIZATION OF CONY A By-Law Committee was appointed at the Directors Meeting to allow for an industry representation branch of New York State Campgrounds of which there are a total of 830. We now represent 111 campgrounds listed in our brochure and have 33 signed authorizations of other campgrounds who are on our mailing list. This makes a total representation of 144 out of 830 total. We have an objective of representing a total of 830 through our reorganization and a minimal dues of \$10 by any of our Regular members to the formation of such a representative branch, would you please notify CONY of your objections and your reason for concern.

ORGANIZING FOR ACTION

Neil Ross, Executive Director
Rhode Island Marine Trades Association

Organizing for action. Well, action for what? Back in Rhode Island things don't always go smoothly for our marinas so maybe I can talk about some of the things that are bothering us. We do have fuel problems; high costs of fuel, people aren't getting fuel. Sewage disposal hasn't really bothered us yet. We are one of the few states that is sitting back and watching New York State take the leadership position and we are going to wait until the federal government makes its final action before we do anything. As in New York, the permit process is a real problem. For any permit you want to get, to rebuild a bulkhead etc., you have to go through from 2 to 15 different agencies at federal, state and local levels, and everyone of them has a permit process with hearings. So one can normally anticipate waiting from 6 months to 2 years to get a permit to rebuild a bulkhead.

Three years ago the federal government passed the Coastal Zone Management Act. How many of you know of this? One. There is another bill presently being worked out for land management. Essentially it says there are a lot of people who want access to the shore, and because more demands are being made on the shore than we can reasonably deal with we have to organize to prepare for this. We have to plan for people to have access to whatever it is that they want. Well, we are a user of the shoreline, and we think we are doing a pretty good job of letting a lot of people get to the shore, to the water to enjoy themselves. But, many people don't see it that way. They seem to think the shorelines should be used for housing developments, dumps, parking lots, condominiums, warehouses, oil depots, oil refineries, birds, but not many of them for boats. There are too many boats already. We in the marina business feel very much like we are in the minority at home.

To further compound matters, there is talk right now of imposing displacement user fees on Rhode Island's waterways for everything in the water from mean high water mark up. This would be an annual fee from a penny to a dollar a square foot or cubic foot of water displaced by docks etc. It is expensive enough to own a boat, to launch it, to fuel it, to repair it, to put on accessories without paying user fees. Just think what this would do for our businesses!

Another thing we have to deal with in our business in Rhode Island is a funny attitude we have towards each other. We see ourselves competing with one another, but we are really not competitors! Everyone of our marinas is full. Nobody has any extra room; there are no vacant slips; there is no extra winter storage. We are, in fact, competing with the camper salesman down the road, with the company that will come in and refurbish somebody's kitchen, with the other people who are after the same discretionary money. The fun money. The money they can spend to enjoy themselves to get some quality out of life. We are competing for that same money with other people and the harder it is for the boatman to enjoy himself on the water, the faster the money will be spent elsewhere. In 1972, 46 million people spent almost 4 billion dollars on recreational boating, while using approximately 10 million boats. There were 5900 marinas serving these people, for cruising, sports fishing, racing, or just plain drifting.

What I am saying is that we have a lot of things affecting our business that we don't seem to have much control over. Somebody somewhere else is making decisions and telling us what to do. The decisions seem to be made from two perspectives - economic and political. How can we affect these? First we have to speak up for ourselves, because there isn't anybody that is going to speak for us. People will speak to us, not for us.

I'd like to quote from this booklet entitled, "Marine Trades and the Coastal Crisis".

"Power comes from participation. The marine business with their great numbers of small, independent operations have been amongst the most frustrated of fatalists. It has become much too comfortable to become a critic after the fact and to say, 'They should have done it this way!' Recently, however, through organizations such as the Marine Trades Associations, small operators are pooling their money and influence to shape the many decisions that affect them. Participation rather than resignation is rapidly becoming the norm. It is paying dividends in better coastal legislation and more responsive agency control." *

How do we fight? How do we organize ourselves? First, make one assumption; that most decisions on state, federal level affecting your business are made in the dark. Officials often don't understand how new policies really affect you. Everybody is looking at the same point from a different perspective and comes up with different conclusions. When those conclusions work to our advantage that's okay, but when they don't work to our advantage, we ought to take action.

I think we have to do several things. First, in organizing, know thyself! Then, tell people who you are. Surveys are being made on the marina industry; you've had one made in this state. Take these facts and use them to your advantage. Use the raw figures in the survey, but also use the multipliers, the little fudge factors that tell the real impact of marinas on the community. Talk to national officials. President Nixon said we have to cut back on our fuel consumption, therefore, in a rationing program there won't be any fuel for recreational boats, nor will there be for recreational aircraft because it is superfluous. We have to use our gas for the essential things. But, if that is your job, that is essential! We can all cut back on fuel, on our income, but when you are out of work, that is a disaster! So we counterattacked. We told our Senators this regulation was a disaster, and it was.

The next step is to organize. Get together with people who have the same kind of problems. We have in our association, marinas, boat yards, boat manufacturers, marine wholesalers, hardware distributors, yacht brokers, advertizing people, insurance men, marine insurance specialists. This gives us a voice. We go in, we have some muscle.

Because there is an increasing problem in dealing with agencies; legislation, public relations, fuel crisis, sewerage, I suggest you strongly consider trying to get a professional spokesman. I am paid by the Marine Trades Association to be their spokesman, because there is a limit to what a volunteer can do. Get a lobbyist. He can watch all the

* Booklet Available From: Marine Advisory Service, University of Rhode Island, Narragansette, R.I. 02882

bills for you. When there is a problem, get somebody to deal with it. You can't afford to curtail your own livelihood to do it.

One of the traditional ways of bringing greater income to the marine industry is to run a boat show. But the trade association itself should own and operate it. Don't let somebody else do it and give you a couple of hundred dollars for endorsing it. We run and operate our own boat show in Rhode Island. It is a trade association function to help our members. We pay 25% of the advertizing costs back to our members.

The last step is to respond to what other people are telling you and counterattack. You have to decide where, which directions you have to go and then you have to move.

Running a business is kind of like being in a war. Napoleon had a list of maxims for operating a war that I think apply to businesses, groups, and associations. If something is blocking your path, (1) you can attack it directly, wage war. Every objective can be obtained if you are willing to pay the price. Is it worth attacking headlong? Yes, some things are, like the legislation that may ruin our businesses. (2) Find the weak spots and attack through these loopholes. Sometimes that doesn't work either, so the third choice is to ignore the problem and go around it. Let it come after you.

The last thing I am going to say to you is collectively you can do something, but you can also do something individually. Send telegrams to your Congressman requesting adoption of section 113E of the Federal Energy Administration Act (House-Rep 11793), because business is at stake. This joint committee between the two houses, working on the final wording now of a bill concerning energy. This 113E is an amendment tucked in there by the boating industry associations saying, in any fuel allocation system ever adopted, the recreational boating industry will be treated fairly and equitably. Maybe there is more fuel now, but there may not be in the future. If we get that on the books now, it will help us. This is one thing we can do today. Thank you.

Discussion

Question:

Neil, has your organization tried to get the boaters themselves more involved and supporting the industry, because there are millions of people out there who need your service?

Response:

Yes. We are considering organizing an auxillary boatmens organization in the state, because things like this users fee are going to hit them hard. We are calling it not a user fee, but a consumer fee. The more people we can get upset about it, the more strength we will have to get it blocked.

LIABILITY AND YOUR MARINA

Joseph B. Bugliari, Professor
Agricultural Economics, Cornell University

As you well realize, in 45 minutes there is not much we can do beyond familiarizing you with the basic problems of liability and protection. I propose to look at the following areas of Business Liability and Business Protection: (a) Liability; (b) Workmen's Compensation and Disability Liability; (c) Property and Business Protection.

The first basic concept you ought to understand is that in our legal system there has to be fault before there can be liability. Some states have statutes that make strict liability. I know none that would apply particularly to navigation or marinas, except perhaps section 240 of the Labor Law stating if you give an employee a ladder and that ladder breaks, you are liable regardless of what caused it. There are sales warranties with law imposed liability - liability for ultra hazardous activities - if you are doing any blasting or anything like that you may find yourself liable even without fault. But the basic premise is that you are only liable for accidents on your premises if there is some sort of fault, if you have breached your duty or care to an individual.

A second major point concerns the status of a particular individual. If there is somebody on your premises who is merely a trespasser, who has no right to be there at all, your only duty is not to trap him. You can't put a spring gun behind your cabin door so, even though he is obviously breaking and entering, when he goes in he doesn't get blown in half. There is an old story about a farmer who had a watermelon patch where kids used to come steal the melons. He put up a sign saying one of these watermelons is poisoned. That worked very well for a long period of time. However, one day he went down and looked and all the melons were there, but now the sign read two of these watermelons are poisoned.

In many states there is an "attractive nuisance doctrine". This means that children, particularly very young children who come to places where they are still, in effect, trespassers, can hold a landowner liable on the basis of an attractive nuisance, and typically includes things like swimming pools and marinas. New York has not accepted the attractive nuisance doctrine. It has in fact rejected it. Still I warn you that if a six or seven year old is involved, the case is going to be a lot harder to win than if you are dealing with somebody 25, 30 who ought to know better.

One step above the trespasser, is a licensee. A licensee is a social guest, somebody you invite to your house, somebody who is there merely as a social friend. To this person who is a social guest, your duty is not only not to trap him, but to warn him about any changes or any defects you know are present on the premises.

The class above that we call invitees; people who come to your property for some business purpose. Your patrons will fall into this class. It is sometimes called a business invitee, but includes anybody who comes on your premises for business purposes; postman, mailman, fireman, anybody who is there for some legitimate reason. To this person we owe a duty of reasonable care. That means not only do we owe a duty to observe the conditions of our

premises, to warn of any defects, but also to prevent conditions getting to a situation where somebody can get injured, and to correct any defects we know about within a reasonable time.

A second basic concept we ought to understand is called the doctrine of "respondeat superior". It means that an employer is himself responsible for the negligent act of his employee when those employees are carrying out employment duties. In other words, not only are you responsible for what you do that may hurt somebody else, or cause somebody else to be injured, but you are also responsible for what your employees do to cause injury.

They must in fact be an employee. Obviously, you are not responsible for independent contractors or others whom you have no control over. For example, if I hired somebody to paint my house and I paid him by the hour, told him how to do the job and supervised him, and he dropped a bucket of paint on the head of the postman, I would probably be responsible. He would be an employee so I would have to bear the responsibility for his carelessness. On the other hand, if I contracted the job to a painting organization, they came and did the work, provided their own tools and equipment and charged me a flat fee and the same thing happened, they would be responsible. So he must be an employee, and he must be acting within the scope of employment.

Today, that is a pretty broad concept. Practically anything your employee does that injures somebody else will normally somehow be found to be within the scope of employment. On the other hand, it could be something purely personal. It is very difficult to find out those things so private they don't relate to employment in some way, and where the employer isn't responsible. One of the things that has caused this is the Workmans Compensation Law because the employer is responsible to the employee for injuries that he suffers in the scope of his employment. It also means that the liability scope widens at the same time. If a guy suddenly goes berserk, or does something completely personally motivated, then the employer isn't responsible.

Another thing to remember is that in New York and in most states, there is a doctrine of contributory negligence. This means if the other person was also partly negligent, that his negligence was also partly cause of the injury, then there is no liability on the part of the property owner. If, for example, you had a slippery area but somebody came running through it in the dark in the middle of the night not looking where he was going, you could conceivably defeat his case even though you'd been negligent. He was also negligent and that contributed to the injury. As a practical matter, both those questions are going to be submitted to a jury. The jury will formally weigh this out even though they are not supposed to. They are instructed by the judge that if you find the proximate cause of the injury is contributed to by the negligence of the plaintiff, then the defendant should recover. The jury will decide both parties are at fault and give y money instead of x. Some states have adopted that doctrine called comparative negligence, not New York, though juries do do it. That is why they will come up with some odd figures in certain situations.

I want to talk about some specific problems you should be aware of. First, if you have any temporary housing facilities, you should be aware of the State Sanitary Code - The Temporary Residence Section, which has

specific provisions for water standards, sewage disposal, and so forth. If you have any comfort stations available on your facilities you should also realize the State Sanitary Code has provisions for upkeep of sanitary conditions. For an invitee, again there is only the duty of reasonable care; for a passerby or licensee, the duty would be a little bit less.

Also I should mention the provisions of section 33C of the New York Navigation Law, which I understand were discussed last night, concerning sewage disposal. One of the questions I understand came up and didn't get resolved last night is whether it is mandatory for marine operators to have sewage disposal facilities available at their marina. The answer is no. I have a copy of the statute here in front of me and I will read you sections 7 and 8 of the section 33C. It says, 7) "the owner or whoever is left lawfully invested with the possession, management, or control of the marina shall be required to provide suitable trash receptacles or similar devices designed for the depositing of litter at locations where they can be conveniently utilized by watercraft users. (8) All marinas that provide for the handling and disposing of sewage from the holding tanks of watercraft shall do so in a manner that will prevent the pollution of the waters of the state." Now you read those two sentences together and what they are saying is, that every marina must have trash receptacles on it. You do not have to have a sewage disposal facility on your marina, but if you do it must meet either the state or local health inspection provisions. There is nothing making it mandatory for marina operators to have sewage disposal facilities available.

Some of you may have recreation facilities, ball fields, playgrounds, etc. connected with your establishment. If you do, your duty, again, is only reasonable care. It is obvious that in any kind of activity you take a certain risk in being there, such as getting hit with a foul ball at a baseball game. On the other hand, if there is some sort of negligent condition, a deep hole or something like that somebody could slip and fall in, it could be considered a liability.

If you provide swimming facilities, be sure the provisions of the State Sanitary Law are consulted. Questions about the necessity of life-guards and lifesaving equipment are set out in sections 6-1. There are also provisions with respect to water, boat pools, beaches, and the constructions of swimming areas and supporting facilities.

One of the questions that often comes up, is what happens if you comply to all the provisions for proper facilities, maintenance, and particularly with swimming pool operations somebody comes when it is officially closed. At 2:30 a.m. a few drunk fellows decide to go take a swim and one of them is seriously injured. What is the owner's responsibility in this situation? The answer is none. If you post hours and any kind of hyjinx takes place it is the responsibility of the injured person.

One case we had rather recently, involved a six year old girl who was playing in a swimming area in about three feet of water and the lifeguard never saw her go under. The plaintiffs argued the lifeguard had a duty that was broken in not seeing this event occur. The court ruled that you have to show more than the fact there was a duty. You have to show that the lifeguard was not using reasonable care and that he should have, in fact seen this occurrence under normal conditions, otherwise there is no liability.

Still another thing important in liability is notice. You have a duty to observe, to repair within a reasonable period of time any kind of defect that occurs. It is not an absolute duty to do it immediately. If there is notice to you of a defective condition, either you have observed it or somebody tells you about it, then at that point you still have a reasonable period of time to correct it. The amount of time will depend on how dangerous the condition is, and it will always be for the jury to decide whether you acted reasonably. As an example; someone comes into a grocery store and he drops a bottle on the floor in the grocery store, breaking it and spilling the contents all over the floor. He immediately rushes off to tell the manager about it, and at the same time another patron comes in, whisks around the corner and slips on the condition that the previous patron created. Is the store manager responsible? Probably no. But, if 2 hours later that stuff is still laying on the floor, and nobody comes to clean it up, then that is another story. The duty is only reasonable care. You are not responsible for sudden maintenance problems that could produce an injury.

Another thing I think ought to be mentioned is disorderly patrons. Anybody who runs any kind of business establishment where he has groups of people together, has a duty to the other people to at least get law enforcement officials to come and take care of a disorderly situation he cannot handle himself.

You are not responsible beyond reasonable care for the property storage of patrons. If your luggage was stolen out of this motel while you are staying here, the innkeeper would be liable absolutely. That goes way back into the common law. But if somebody were to break into your boat yard during the off season and do damage or theft, as long as you had used reasonable care to prevent that kind of occurrence there would be no liability. One of the big problems in the marina industry is unpaid yard bills - you have boats in storage and their owners are not paying the storage charges as they accrue. We put an article in the January-February 1974 issue of "Coastlines" I want to make two points from; (1) There is in the New York State Marine Law a provision giving you a way to get rid of the boat taking up space and get your money for your charges by selling the boat. And (2) The procedures for doing this are fairly complicated and not something that you can do yourself. You should have either a licensed auctioneer or your lawyer to tell you how to get the proceedings going to get rid of this boat and get your money legally. It is possible to do.

Discussion

Question:

We operate a large fleet of small rental boats, and cover ourselves on liability as long as the customer is on our premises. The minute he is in that boat and leaves our dock we do not provide any insurance. What is our liability in that case?

Response:

I assume that in any sport or activity there is always a reasonable risk the participant takes as part of the game. If you are taking out a boat and capsize it, it would be the rentee's responsibility unless there was something defective with the boat. Assume for example, the boat was not seaworthy for some reason. You would have to show fault, on the part of the owner of the boat, either in maintenance of the boat or some other

way, proper instruction on how the boat is to be operated, etc., before you could pin any liability on the owner. Most of the time, if you have the customer sign a statement that he understands the dangers and risks that are involved, and that he is aware and familiar with the operation of this type of craft, etc. when he rents the boat, that type of exoneration clause is going to work. If you let a 10 or 12 year old child rent one of those boats there would be a case.

Question:

I was going to ask you about discrimination against minors; what age is considered necessary to either camp or take out a boat or what about discrimination against unwanted patrons?

Response:

The word discrimination sounds like a dirty word today because of all the social problems connected with it. But, clearly, the owner of property still has the right to discriminate, as long as he doesn't do it on an illegal basis. It seems to me perfectly proper to discriminate with respect to age on who you let use a rented boat, i.e. nobody under the age of 18, nobody who is intoxicated in your opinion can rent a boat. If you did it on the basis of race, religion or national origin then of course you would have another set of problems on your hand.

Question:

How about when we discover a customer who is not capable of operating a boat, do we have a right to remove him?

Response:

You have the right to remove him, and refund his money. If you find he has abused a boat you have the right to prohibit his use of it. As long as the basis for discrimination is a legitimate one, you can discriminate.

Question:

I am sure that everybody in the room has problems fueling boats. Can you discuss some of the liability problems here for us?

Response:

I again say your responsibility or duty is one of reasonable care. You could probably tell me, better than I could tell you what is a reasonable operation with respect to refueling a boat. It seems to me, it is going to depend upon the marina's facilities, and what comparable marinas would do. If I had a client who had been injured somehow in a refueling process or had something damaged in a refueling process, I would have to establish what is the procedure of the reasonable marina operator and what this operator did that was not within the range of what the reasonable operator would do. There is nothing written in any statute or legislation or any regulations stating exactly how the refueling operation should take place as far as I know. Such things as not smoking right next to the facility or having some piece of machinery which could create an electrical spark or generate heat right next door to the refueling facility, obvious things like that would be my only worries.

Question:

The big hazard in refueling boats is static electricity, and in Canada it is against the law to refuel a boat unless the hose is grounded to the boat. We don't have that law here.

Response:

Right. I'm sure we don't because I haven't found it. But even though there is no such law, if the reasonable marina operator would operate that way, and you don't, I might have a case against you.

Question:

How many people here actually do ground their hoses when they refuel?

Response:

It seems, predominantly, not.

Question:

Is there any requirement to warn of hazards outside the marina itself, such as weather conditions or navigational problems?

Response:

It seems to me there is, but I don't know enough about the industry to say how far that obligation ought to run. It seems to me, if for example, there is a reef right directly off your marina, or rocks that jut up in certain areas, you have a duty to warn your customer of these conditions, so that he knows they exist. Beyond that I think that most of it is the risk of the sport.

Question:

One thing that hasn't been talked about at all is the fact that we have suddenly been made co-manufacturers under the law if we sell outboard engines. This makes us liable for things that go wrong with a boat and injure its passengers.

Response:

I would point out to you that cases have recently come up in situations very similar to the type you are talking about. For example, something is wrong with a boat, and according to the statute you are the comanufacturer of the boat because you hooked the outboard motor onto the boat, thus liable for injuries to passengers in the boat. You would have the right to recover from the manufacturer, any amount of money you had to pay to the injured third party that was really the responsibility of the boat manufacturer.

Question:

Then, you would have to go against the manufacturer as the customer was going against you?

Response:

Right. You bring them all into one lawsuit and they will try them all together. If they find the defect was due to poor construction in the boat they will award a judgement directly against you and against the boat manufacturer, and in your favor against the boat manufacturer. So as long as the boat manufacturer is solvent or has insurance, he is the one who is ultimately going to pay. You won't have to pay.

Question:

We have been requested to put up a Coast Guard Warning Flagpole, in the Great Lakes, to indicate weather severity. I have rejected this proposal on the basis if any of our people fail to post the flag, because he doesn't get the information or just forgets, that we could be liable.

Response:

There is a rule of law stating that once you assume a duty, then you must carry out that obligation reasonably. Suppose you see a person drowning. Believe it or not you are not liable to rescue that person. But suppose you assume that duty. If you jump in and half way there decide you can't or whatever, then you might be in trouble. If you do implement the system, and let people know this kind of warning signal will be available, you have to operate it reasonably because then people will assume it is there, and that if the flag is flying in a certain way they can rely on it. If they rely on it to their detriment, then there is a problem. So I would agree with you, in assuming that responsibility you also assume a possible liability.

Question:

I have always understood in marinas, if somebody is having trouble on the lake, a person in another boat is supposed to assist him. The marine law says if you take that boat in tow, you take their line, don't throw them yours.

Response:

I do not myself know of any law other than perhaps marine custom that would require that particular action. If you stood by and attempted to bring that boat ashore you would have the duty to use reasonable care even though you were in effect being a good samaritan helping this person out. So, if in the process, you ruin the boat completely because of some carelessness on your part, not something that would be a natural process, then you could be responsible.

Response:

Maybe I could answer that question. The reason that you use the other person's line is because it is attached to his deck, his fittings, and his line strength and it is his responsibility. For example, if you have a powerful boat and he throws you a 3/8 nylon line that is a little worn to begin with, and in the process of warfing him around a dock it pulls his deck fitting out, he is responsible. Whereas, if you throw him your line and it breaks, then he can say that you have exercised an act of salvage and you should have had due care in this process.

Question:

So you are saying then, take his line?

Response:

Take his line all the time.

Response:

That comes not out of any statute but out of the fact that that is the reasonable way to handle the situation.

Question:

What would you do if you didn't have a line?

Response:

I would throw him mine, of course, because that would become the reasonable thing to do.

NEW YORK STATE OUTDOOR RECREATION PLAN

Ivan Vamos, Director
N.Y.S. Office of Parks and Recreation

I am very proud of our Statewide Recreation Development Plan. It has been a difficult thing to achieve because it is not easy to pull the important recreational segments together and at the same time acknowledge and respond to all the other elements guiding the state. I think we have one of the leading efforts in the nation. A State Recreation Plan is required by state legislation for a state to have some sources of federal aid.

One of the problems that lead us into this outdoor plan is the growth in the state's population. We expected it would be extraordinary, but it has slowed down in a very special way which we should all be aware of. (Chart 1) It has slowed down in the number of new births, in the number of immigrations and this will lead not only to slower growth but to perhaps an older population. This isn't necessarily bad as far as camping and marine industries are concerned.

When we deal with situations that represent the need for additional ball fields, additional parking lots, we are getting involved with questions that haven't been raised in the past decade. Of course, there are always exceptions in a state as big as New York, especially in the metropolitan areas where there is very strong growth. However, the population in these areas is generally poorer, and there is an increase in the number of youth in these areas.

Recreation has grown at a much greater pace within the last half century than population growth. This growth has occurred with added disposable income, with an increased interest by the population in the outdoors, in the waters, in the parks of the state. We expect this growth, to a degree, and let me add, that the state park attendance is a reflection of the same sort of attendance you will be experiencing. We had spectacular growth for awhile, but we expect it to level off though certainly not to the extent that the population growth has leveled off.

To get an idea of how this growth will occur in the various different types of recreation activities, we constructed a model representing the different aspects of the population's ability to pay for recreation, get to recreation, the recreation available to them, their socio-economic characteristics and what these are likely to be in the future (Charts 2 and 3).

There are two types of results we will be looking at. First, how many people are in the market? How many people are really using recreation facilities at least once a year, this year? This is a very important question because many times people will say they are campers, but the last time they camped was ten years ago. Maybe they'll do it next year, but chances are they won't. Or they are boaters, but they really don't own a boat and they haven't been invited to go boating in the last two years. So this is the part of the population that has gotten out in the last year and expects to get out in a future year.

State Population Growth

Total Population 21,088,000

New York Metropolitan 12,915,000

20-
millions

15-

10-

5-

Upstate Metropolitan 4,969,000

Ex-Urban 1,842,000

Rural 1,490,000

1950 1960 1970 1980 1990

State Park Attendance

(An example of growth in recreation)

60-
millions

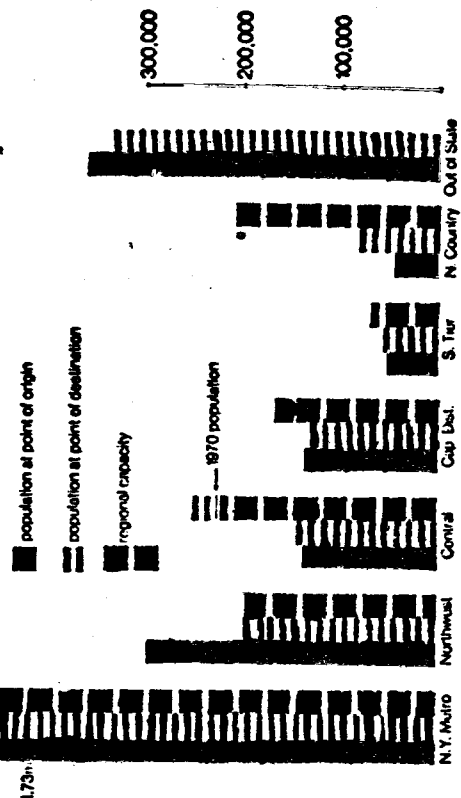
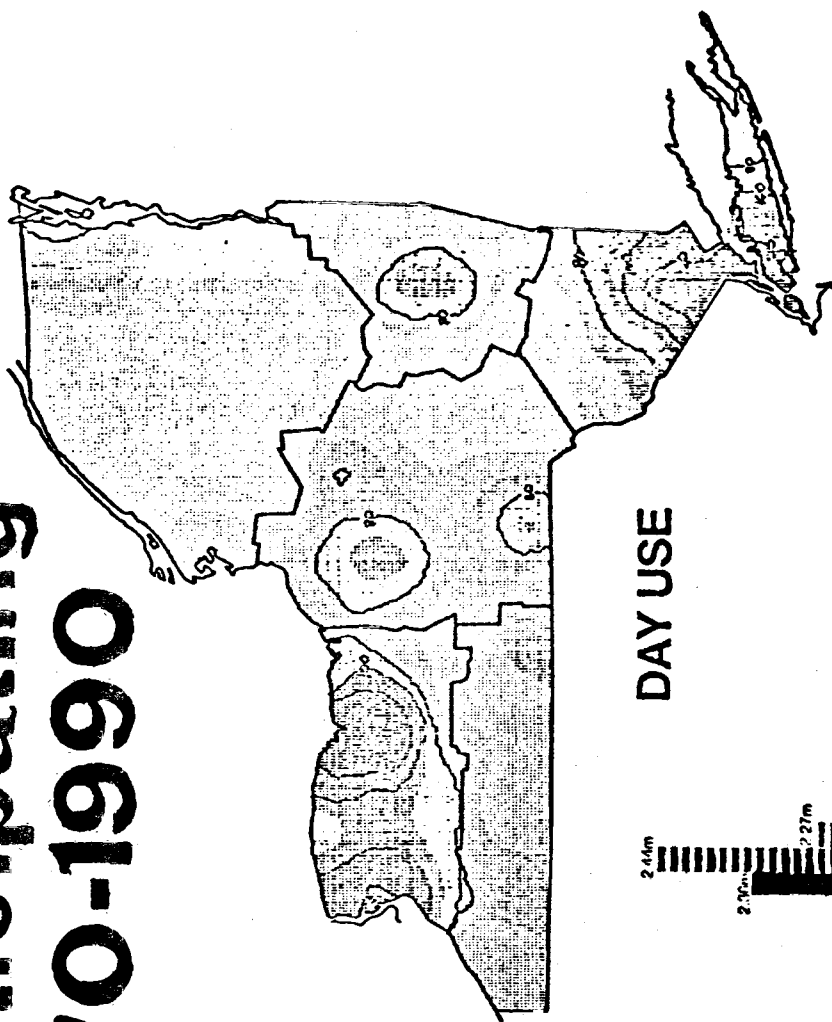
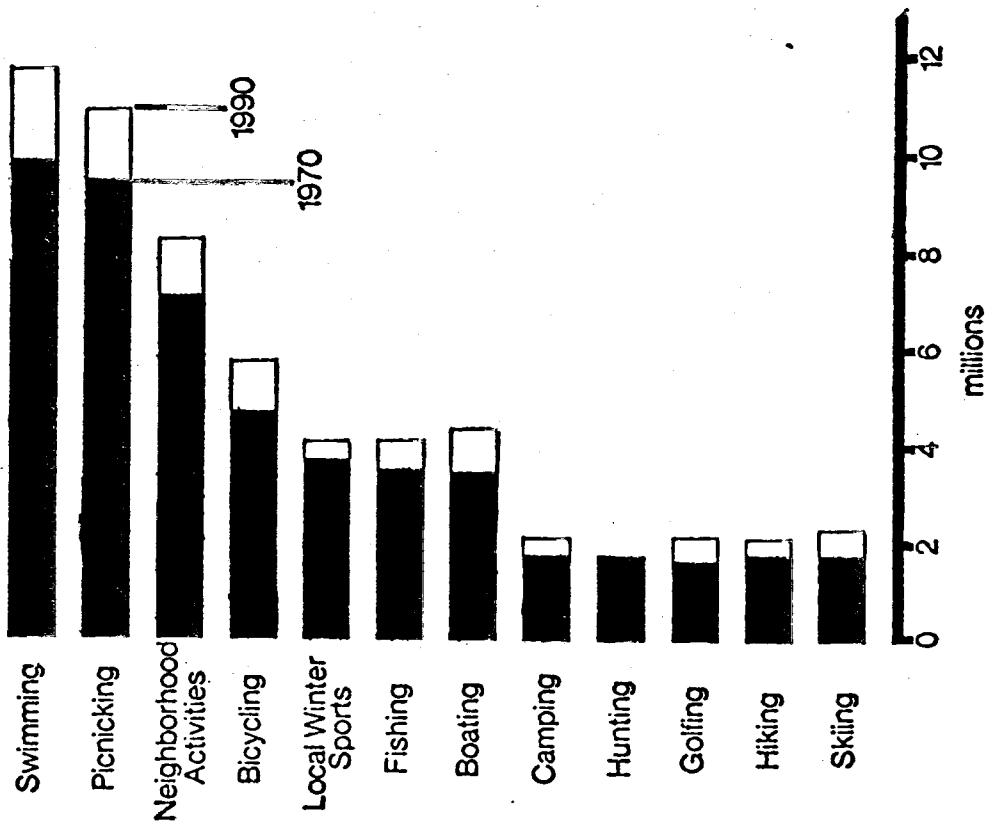
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40-

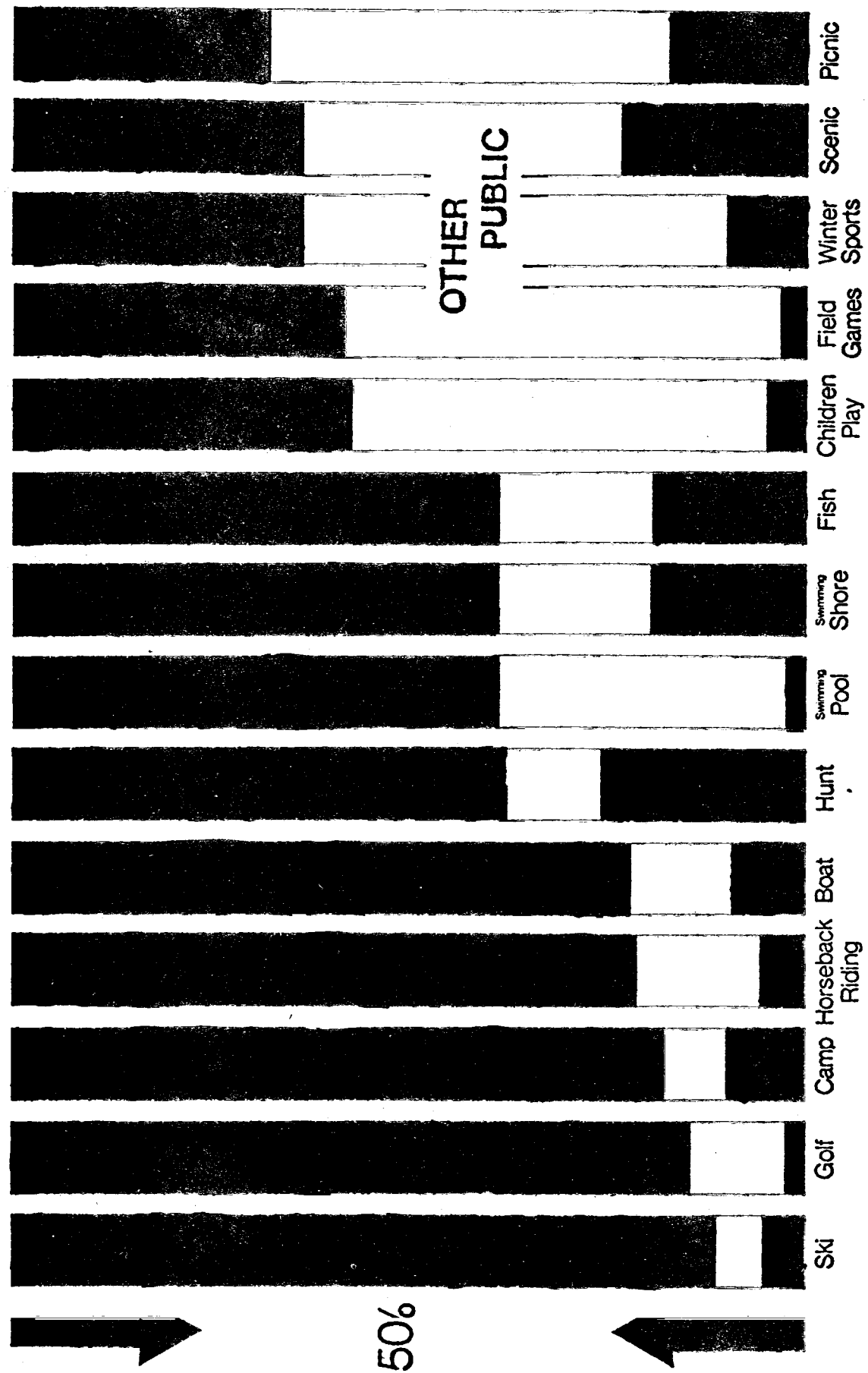
30-

1950 1955 1960 1965 1970 1975 1980 1985 1990

Growth In Participating Population 1970-1990



Private Service



State Service

There are a large number of people who report and are involved in swimming. The only larger category, and we haven't shown it here, are people who report walking for pleasure. We suspect that a lot of these responses are from people that, when approached by a survey had nothing really to report, but wished to show they participate in something. This is fine, and somebody should do something about providing sidewalks and making this a pleasurable experience.

So really the picnicing and swimming combination, a very strong combination, are major activities of at least half the population. They work in combination with each other, because people who do go swimming tend to go picnicing and visa versa. Picnicing tends to combine with any number of these other activities.

Neighborhood activities - court games, field games, parking lot activities - are also activities of a large part of our population but if you notice, the proportionate growth that we expect for these activities in 1990 will not be quite as striking. In fact, it will not be very great and we will expect that most communities can probably handle this degree of growth within their existing school yards, city park areas, town park areas as long as these areas are maintained properly. There are a few exceptional communities involved.

Bicycling has enjoyed a very strong growth; stronger than neighborhood activity and probably stronger than we are able to guess at this point. This is particularly true of adult bicycling. Probably you will be pressured by people who come to your areas as campers or marina users requesting information on how to bicycle from a point on a particular day. We hope to establish bike paths and trails in urban areas and in the recreational areas of the state which hopefully you will be able to profit from.

Local winter sports are very strong and this is something I want to mention specifically because the facilities are not very strong for this conglomeration of activities. Some of it, such as ice-skating, sledding, winter picnicing, has been neglected as a New York State Recreational Industry. Hopefully you can capitalize on some of this demand.

Fishing continues to be strong in contrast to hunting, though that, except for archery and a few other types of hunting, is pretty steady. It has some relationship to offpeak use of facilities so you should be aware of the strong demand, though it is not growing but remains constant.

Boating will experience a very strong interest for several reasons. One, is the added income. The other is the general clean-up of the waters of New York State. Boat operators contribute very little to water pollution and initially they were severely hurt by the state regulations.

Camping too is growing, but not as fast. Campers tend to fall into one extreme or the other. Either they are willing to put up with discomfort, to backpack and have a limited amount of investment, or they invest a fair amount in equipment, and have a good income. The number of people who can store and keep buying this equipment is not going to increase at a great rate. But, there are already a great number that have gotten into the business of being campers and we feel at this point, the key element is

trying to get them to get out more times every year, perhaps during the offseason, rather than trying to attract new campers into the market. There will be new campers, but I think your interests lie in trying to make these people aware that there is an offpeak ability to serve and that there is an offpeak interest and a variety of activities that will allow you to serve them better.

Chart 4 shows an average weekend day. Given the public and private capacities that exist, there are some areas of the state which will go beyond 100% use. You can see the New York metropolitan area exceeds the capacity. This happens not only with recreation, but also with a lot of other types of facilities. People can crowd areas to a level beyond the capacity of the area to handle them.

But there is another way of looking at where these overloads will be. New York metropolitan area shows the most overloading in all activities combined with some additional pressures on the northwest (Buffalo and Rochester metropolitan areas). Needs in the Central New York and Capitol District region are not that great. The Adirondack area, North Country and Southern Tier area of the state have a great number of recreational facilities and resources. We hope to use these more wisely, rather than building a great many new ones. At the same time we also hope this will channel growth so we better utilize the private facilities in these areas.

This may demonstrate another point research has pointed out, and that is just because an area of the state is scenic it doesn't make it the best location for a recreational enterprise. The pressures are still on the areas where people live and vacation.

In terms of how this overuse will distribute itself, swimming and picnicing and some other activities related to it, account for about half and the other activities distribute themselves with rather small growth for camping, a reasonable number for boating.

But, let's look at the services being provided not only to meet this overload but to meet the general demands of the state. New York State, I am proud to say, with help from the Extension Service, was really the first state to have a good representation of 90% to 95% of all private recreational enterprises operating within its boundaries. When we surveyed and analyzed this, some people in a decision making capacity were very much surprised, because we found New York recreational services are provided more by private enterprise for almost all activities, than by the public. You hear about public parks, you hear about public acquisitions, yet in terms of service, i.e. skiing, 90% of the capacity is being provided by private service; golf, 85%; camping, a little bit above 84%; and for boating, around 80% of the facilities are privately owned.

So, if private enterprise is overlooked, then the public need for recreation activities is not served. There is no way the private enterprise can be hurt and not have the service of the state population be hurt. We have brought this up in our agency discussions of gas rationing and a variety of other issues. It is something legislators and others in decision making capacities do not always think about. You are providing services and, in some cases, doing it better than the public.

In some other areas such as picnic grounds, scenic attractions, children's play areas fees cannot be charged very easily to cover activities. There the state, localities and other public agencies do provide an abundance of service. We expect this to continue, on both ends of the scale.

I have two charts to illustrate the additional facilities needed throughout the state. Chart 5 shows what private and public sectors combined must provide, and Chart 6 shows that the state alone must contribute to this effort. A way of looking at this; (Chart 5) about 100 parks with either an Olympic size pool or similar capacity beach will be needed between now and 1990, and about 130 new campgrounds of at least 100 campsites each will be added to the system.

There is a great demand for additional trail areas and you will notice that while we expect to contribute to this through new state parks, we don't expect to do much campground expansion, for example. We also don't expect to do much marine parks expansion, though we think we can contribute a great deal by adding boat access sites, some of these being very primitive. We will probably be greatly involved with developing recreation ways connecting up recreation systems in places where you will be providing services at the point of destination.

We have a map of the state proposals and part of the proposed projects. It includes the location of specified harbors of refuge on the Great Lakes agreed upon with the Corp of Engineers and the Environmental Conservation men. In addition, we hope shorelines, outlands, and open spaces can be linked together in some comprehensive system in many areas of the state. This should help shape urban growth, help provide you with a variety of activities you can offer to the New York clientele, and perhaps encourage other agencies dealing with sewerage, powerlines, roads, to assist in enhancing and preserving these areas.

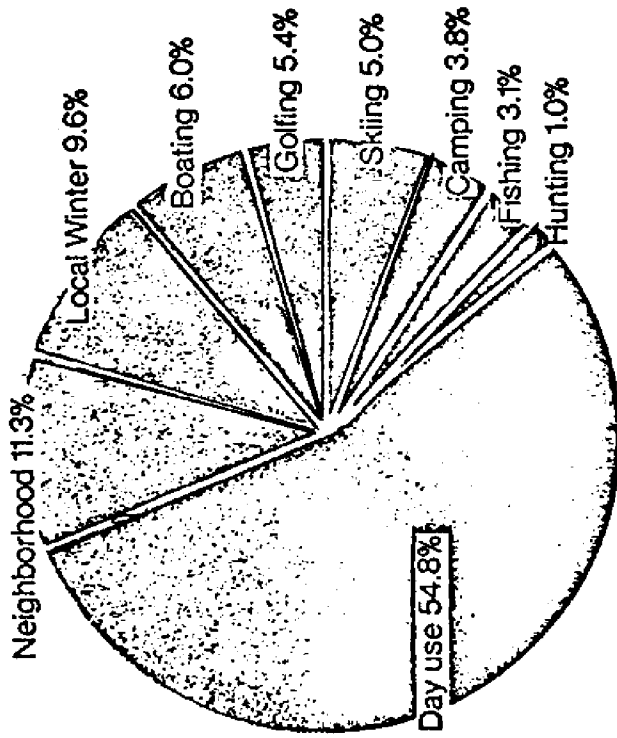
Some of this work has been initiated with the islands in the Hudson River. We have also spent a great deal of time within the last year trying to evolve and bring out a recreation program along the barge canal system, which is made up largely of state owned land. Except in a few cases, we are not taking additional lands. Here we are dealing with state owned lands that simply were there and in some cases not used, in other cases, used by very few. The first stage of this barge canal project went into operation last season, and was highly successful. It should enable boaters to use this system with more comfort, probably with more interest, in time for the bicentennial celebration. Trail users of various sorts will be able to go to the areas and may wind up in your campgrounds. We hope these systems can be developed in other areas and we expect we will have the cooperation of the private enterprise providing the bulk of the services along these areas.

The public role is strongly needed to make sense out of public land ownership, and to provide comprehensive open space facilities that the public can use. We hope we will have great success in these programs.

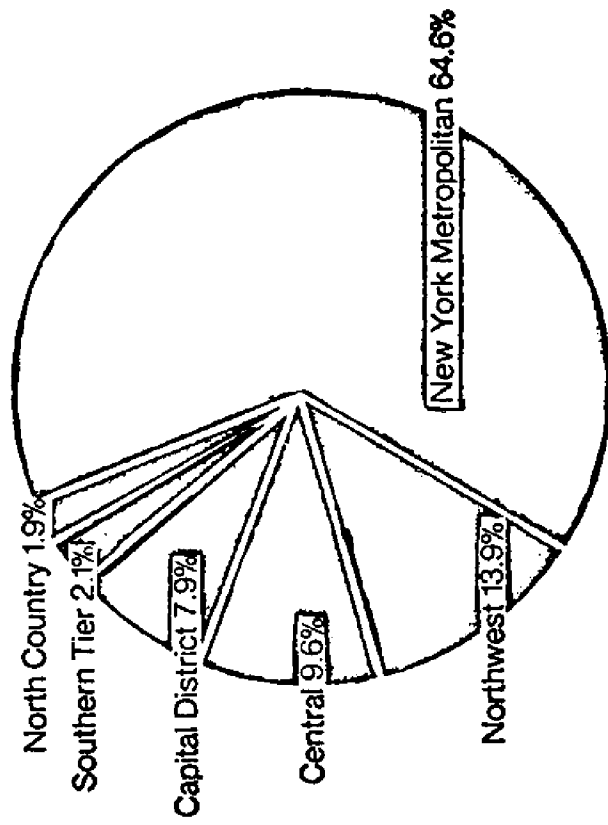
1990 Statewide Capacity Needs

private & public average weekend
capacity 1.77 million land 675,000 acres

ACTIVITY DISTRIBUTION



REGIONAL DISTRIBUTION



1990 Statewide Facility Needs

private and public average weekend

ACTIVITY	CAPACITY-NEED	FACILITY
DAY USE	967,000	100 parks: olympic size pools
CAMPING	67,000	135 campgrounds (100 campsites each)
SKIING	89,000	22 major ski areas
GOLFING	96,000	400 nine-hole golf courses
BOATING	107,000	53 marine parks, 380 boat launching or access sites
LOCAL WINTER	69,000	140 winter recreation areas (skating & sledding, etc.)
NEIGHBORHOOD	800,000	800 neighborhood parks (school playgrounds, etc.)
FISHING	54,000	1200 miles stream & shoreline access, 50 boat rental/charter areas
HUNTING	16,000	35,000 acres upland management areas, 12,000 acres wetland areas
TRAIL NEEDS	145,000	2,427 miles of trailways (approximately 22,000 acres)

1990 State Park Facility Needs

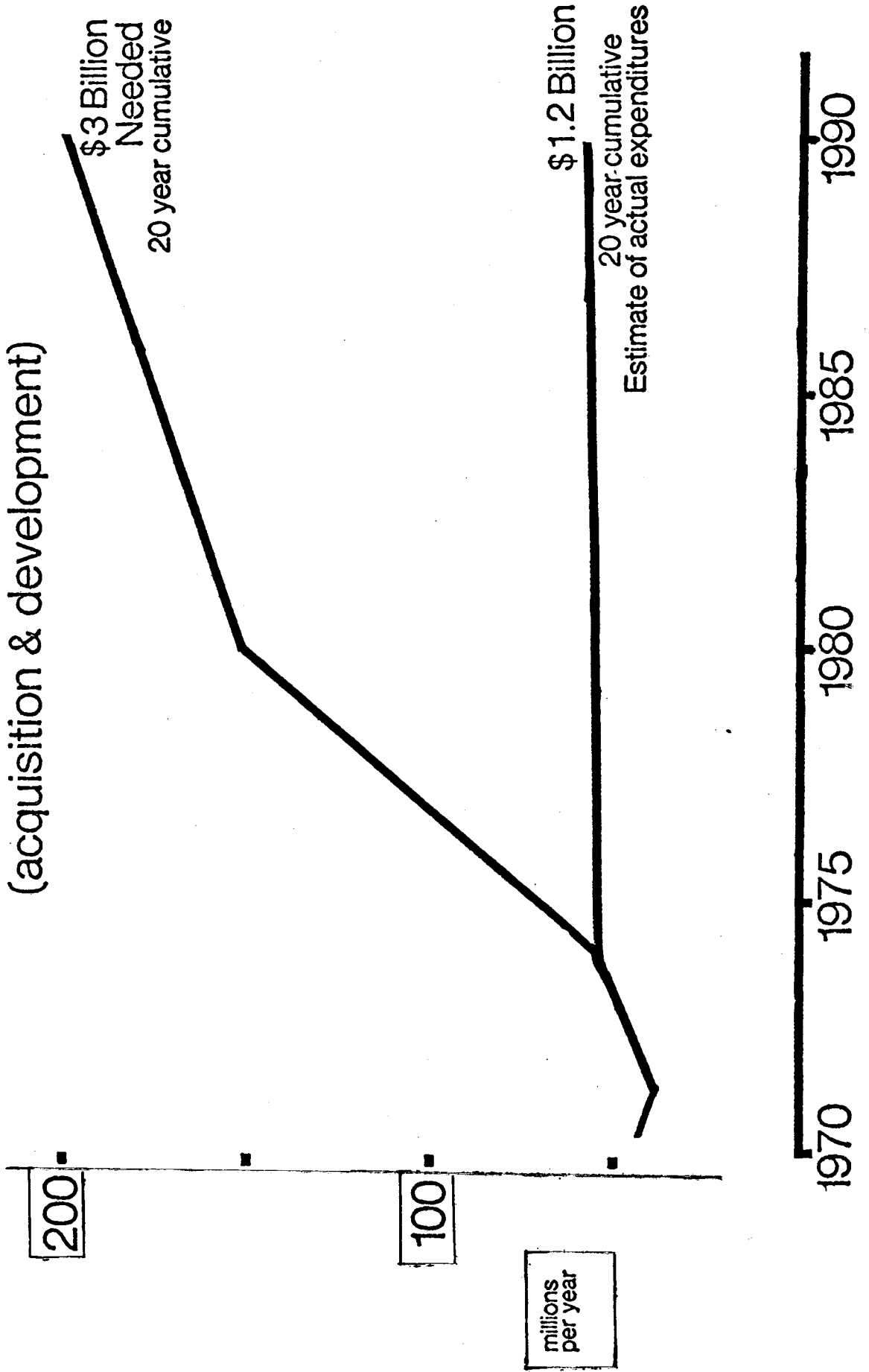
State's share of average weekend

ACTIVITY STATE PROJECTS 1970-1990

DAY USE	24 state parks -- day use
CAMPING	20 campgrounds (or equivalent expansions)
SKIING	10 small ski areas (T-bars and rope tows)
GOLFING	12 golf courses (or increased capacity)
BOATING	5 marine parks, 38 boat launching or access sites
LOCAL WINTER	17 winter recreation centers
NEIGHBORHOOD	40 field game & play areas
FISHING	240 miles shoreline access in parks
	10 boat rental or charter areas
HUNTING	9,590 acres upland management areas
	3,250 acres wetland
TRAIL NEEDS	1,000 miles of trailways

State Costs

Public Recreation Projects
(acquisition & development)



Discussion

Question:

I noticed on your proposed plan for expansion, you have 53 marinas needed, and the state was going to provide 5. Where do you expect to get the other 48 from?

Response:

We looked at what part of the service was already provided by private enterprise and we estimated the private enterprise in these recreational areas would continue to grow. The Governor appointed an advisory committee to help us develop these recommendations (we developed the staff work and provided the forecast of findings prior to their exercising of judgment and pulling together these recommendations), and part of their recommendations included tax help and perhaps help similar to what the agricultural districts have had for recreational enterprises. We specified, as part of the plan, some sort of help would be required for the private operator, either tax or local development aid or other forms of acquisition aid and leasing arrangements. We realize your plight and still hope to have an extension of the private industry rather than assuming public enterprise should begin taking over this. We feel public institutes should try to keep private segments providing a similar proportion of the services they are providing now.

Question:

I asked that question for a specific reason. I don't think you can build a marina anywhere today because of the opposition, especially on the Island.

Response:

On Long Island we have been dealing with the colleges, environmentalists, and have been working on a plan for the Long Island Sound study in cooperation with various federal agencies. Throughout this planning we have been very successful in getting a proportion of the land and water areas laid aside for recreational uses. Executing the project may be a little bit more difficult, but I don't think you have been planned out of existence by any means. In fact, I think other forms of recreation and preservation remain some of the only valid cases left for the shorelines. These are being recognised. Some of the other uses such as dredging for sand in the Long Island area have been put in a disastrous position by these planning efforts. If you were to ask me about a permit to dredge in state lands in these areas, I don't think I could respond as positively as with marinas.

These growth needs have been recognised and I might say that in some areas of the state, where things are less complex, we are doing better in serving them. For example, within the canal project area where we have done more work, we stated specifically we would not want to stop state permits from being issued to the private marinas operating in these areas. We said these permits should continue except when the action would contribute to some health or safety hazard. We will try as much as we can to help you obtain these permits. It is getting easier to do this because some of these permitting authorities and requirements are being collapsed into unified single, one-stop review systems. Environmental Conservation for example, has done this. I recognise that there is a problem, but I don't think that you should throw up your hands and say we are licked.

Question:

Back when they did away with the gas refund tax for non-highway usage, it was our understanding that the state took that money and put it into a fund for marine improvements within the state of New York. Could you tell me how that is figured, what amount goes into it, how much there is in the reserve fund and how an individual could go about getting some of it?

Response:

First of all, the funds within this original law were in the form of a bond issue that would be paid back from these sources. This bond issue is called a "next step", the initial bond issue had been an acquisition bond issue. The "next step" bond issue had 40 million specified for marine recreation facilities. This bond issue is released and sold annually (or sometimes on some slightly different basis) and these funds are made available mainly to public agencies. So in some cases the public agency makes the application and the private entrepreneur ends up running the facility. We also have grant and aid programs with these "next step" funds that we provide to municipalities. Some of these projects are marine projects, some of them are other forms of recreation. I believe we had around \$2 million to work with during the last year. As a private operator, you have to get a municipality to respond to that goal.

Question:

I am concerned with Oneida Lake, part of the barge canal system. We anticipate even more use of the area than in the past, but we do not have many facilities on the lake for boaters. They have access to no picnic areas. I understand that the state once owned the islands in the lake but sold them. Is there a possibility that the state may reacquire them?

Response:

Yes, we are studying this prospect and I think there is a very good chance of making this acquisition in conjunction with this waterway. It could accomodate boaters and, in the winter, snowmobilers.

Question:

May I ask about the state dock where boats can tie up for no longer than 48 hours? There is an area behind that dock with homes along it, but on the north side of the road, there is an area where docks could be utilized very nicely. Are there any plans for this specific area?

Response:

Not this year. I don't think we have fully documented ownership in this area and the leases are to private areas. A hazzard exists in the water behind those docks because of pilings in the water from old boat-houses.

Question:

You haven't given a breakdown of where these new parks, etc. should be located. Could you be more specific than to just say you need 100 of this and 20 of that?

Response:

We have the regional state grounds and description provided within the state plan with a summary, by region, after the needs. One section deals with the market studies by region for a variety of activity including boating and camping, plus there is a very brief account of the larger regions of the state as they relate to overcapacity use. Beyond this we have county level estimates and estimates of all the capacities in the forecast section. In a few cases, where we had a specific project, we put down a symbol to show we had some interest. In some cases you will find these projects already out of date.

I think that you will all agree these studies show finally the role of the private sector is significant in New York State. We are extremely pleased we had the opportunity to share these important facts with you.

THE ENERGY SITUATION AND OUTLOOK: MARCH 1974

Robert J. Kalter, Associate Professor
Agricultural Economics, Cornell University

By now it is well understood by most of the American public that the United States was headed for major energy problems prior to imposition of the Arab oil embargo. Although that embargo made many of these problems more apparent, its end will not provide for their long-term solution. Rather, we should see an abatement of short-term pressures on governmental institutions which will permit a more rational evaluation of alternative long-run policies. As I will try to point out, a comprehensive consideration of energy policy is long overdue. Piecemeal consideration by numerous government agencies, industry self-interest and shortsightedness, environmental overkill and consumer demands for low cost energy have all contributed to the current situation of energy scarcity. However, the heart of the matter, in my opinion, is "economics", not a physical scarcity of resources.

What I hope to do this afternoon is review the historical factors that have led up to the current situation and then explore indepth the reasons for our present condition of energy shortage. After this review, I will attempt to provide an appraisal of both the short and long-run outlook in the energy area.

Historical Background

Economic Indicators: Let us begin with a historical review of the energy situation. An overall impression of the manner in which we have utilized energy resources in the past can be obtained by reviewing several sets of statistics. (Table 1) Gross energy consumption in the United States has increased from 33 quadrillion BTU's (British Thermal Unit) in 1947 to over 75 quadrillion BTU's in 1973. This represents a 3.1 percent annual rate of growth in energy demand. During the same period, net energy inputs increased at an average annual growth rate of 2.8 percent. Gross energy is merely the total inputs to the economy of primary fuels. Net energy usage consists of the use by each input sector after appropriate conversions in energy form have taken place. Largely as a result of increased electrical energy usage relative to total energy usage, the conversion efficiency with respect to fossil fuels has decreased over the same time period from 88.5 percent in 1947 to 82.3 percent in 1973.

These annual rates of increase can be contrasted with a population increase over the same time period which has averaged only 1.4 percent per year. Another way of looking at these statistics is to indicate that gross energy inputs will double every 23 years if the average growth rate continues. On the other hand, population would double every 50 years. In general, both gross and net energy consumption per capita have continued to increase rather rapidly over the 1947-1973 time period. On the other hand, the use of energy per dollar of gross national product is undergoing a moderate decline. While gross national product has increased at an average annual rate of 3.8 percent, the gross energy consumption per dollar of gross national product has declined at the rate of .6 of 1 percent per year.

Table 1: SELECTED UNITED STATES ECONOMIC AND ENERGY INDICATORS, 1947-1973

Year	Gross energy input ¹ (Quadrillion BTU)	Net energy input ² (Quadrillion BTU)	Gross National		Gross energy/ GNP (1000's of BTU)	Gross energy/capita (Millions of BTU)	Net energy/capita (Millions of BTU)	Conversion Efficiency ³ (Percent)
			Product	Population (Millions)				
			(Billion of \$ 1958)					
1947	33.0	29.2	309.9	144.1	106.4	229.0	202.8	88.5
1950	34.0	29.7	355.3	152.3	95.7	223.2	194.8	87.3
1955	39.7	34.3	438.0	165.9	90.6	239.3	206.7	86.4
1960	44.6	38.2	487.7	180.7	91.4	246.8	211.5	85.7
1961	45.3	38.7	497.2	183.8	91.1	246.5	210.6	85.8
1962	47.4	40.5	529.8	186.5	89.5	254.1	217.2	85.5
1963	49.3	42.0	551.0	189.2	89.5	260.5	222.0	85.2
1964	51.2	43.6	581.1	191.8	88.1	266.9	227.3	85.5
1965	53.3	45.3	617.8	194.2	86.3	274.4	232.1	85.0
1966	56.4	47.6	658.1	196.5	85.7	287.0	242.2	83.8
1967	58.3	50.4	675.2	198.6	86.3	293.5	253.8	86.4
1968	61.7	51.7	706.6	200.6	87.3	307.5	257.7	83.7
1969	56.0	54.4	725.6	202.6	89.6	320.8	268.5	83.7
1970	67.4	56.0	722.5	204.8	93.4	329.1	273.6	83.1
1971	68.7	56.8	745.4	207.0	92.2	331.9	274.4	82.6
1972	72.1	59.5	790.7	208.8	91.2	345.3	285.0	82.5
1973p	75.6	62.2	837.3	210.4	90.2	359.1	295.5	82.3

Source: U.S. Bureau of Mines

P Preliminary

¹ Gross energy is the total of inputs into the economy of the primary fuels (petroleum, natural gas, and coal, including imports) or their derivatives, plus the generation of hydro and nuclear power converted to equivalent energy inputs.

² Net energy is the sector inputs (household and commercial, transportation, and industrial), and consists of direct fuels and purchased electricity.

³ The conversion efficiency factor is the percent of total gross energy going into the sectors.

Consumption: These statistics are somewhat indicative of the increasingly energy intensive nature of our society. However, the distribution of gross energy consumption among the major energy sources has continued to shift dramatically. (Table 2) Anthracite coal continues to decline in importance due to its relative scarcity within the continental United States. On the other hand, although we are blessed with abundant resources of bituminous coal and lignite, production over the past 27 years has seen severe fluctuations and is currently at a lower level than occurred in 1947. The reasons for this shift are numerous. To a large extent, changes in technology have been a driving force in shifting preferences among fuel sources. This has had a substantial effect on the coal use situation. More recent developments, largely of an environmental nature, have increased coal's problems.

Natural gas and petroleum products, on the other hand, have experienced soaring consumption. Natural gas has over a 6.3 percent annual growth rate while petroleum, beginning from a larger base, showed a 4.2 percent annual increase over the past 27 years. Nuclear power is also experiencing a spectacular growth rate but still supplies only a small percentage of total U.S. energy demands (just over 1 percent). This is true despite massive research and development support by the federal government to the exclusion of other potential energy sources. Hydropower, another relatively small contributor to total energy resources, is slowing its rate of growth as potential sites are exploited. In general, the United States economy is largely dependent on fossil fuels for energy at the present time.

Some rather interesting and spectacular shifts in demand among these sources have occurred historically and continue to change our total energy supply picture. The future is extremely uncertain. The 1973 energy situation was not disruptive enough to affect the long-term trend. However, one can look for a possible increased emphasis on the use of coal resources (either directly or through coal gasification and liquifaction) over the next 15 year period.

It is also important to note that not all fossil fuels are used directly by final consuming sectors. In 1973, over 21 percent of the total consumption of fossil fuels was used for electricity generation. This usage varied from 64 percent of total coal consumption to 10 percent for the petroleum sector and 17 percent of natural gas usage. In contrast, only 9 percent of total fossil fuel consumption was utilized for electricity production in 1947, with the bulk of this being supplied by coal. (Table 3)

Production: U.S. energy production differs from consumption largely by imports and exports. (Tables 4 and 5) Natural gas has assumed the number one position (in terms of BTU's) among domestically produced energy resources, surpassing petroleum in 1963. Natural gas reserves continue to be produced annually at more than twice the rate of new discoveries. Only coal, among our sources of fossil fuel energy, results in product exports. We are net importers of oil and natural gas. Moreover, domestic production of petroleum began to decline in 1972. This decline was continued at an increasing rate in both 1973 and during the first quarter of 1974. It reflects the fact that all domestic wells are currently producing at their maximum efficient rate and that domestic exploration has not kept pace with domestic demand. The reasons for this growing gap in supply are many. We will review the more critical aspects at a later point.

Table 2: UNITED STATES TOTAL GROSS CONSUMPTION OF ENERGY RESOURCES BY MAJOR SOURCES¹, 1947-73
(Trillion BTU)

Year	Anthracite	Bituminous coal and lignite	Natural gas, dry ²	Petroleum ³	Total fossil fuels	Hydropower	Nuclear power	Total gross energy inputs	Percentage change from prior year
1947	1,224	14,600	4,518	11,367	31,709	1,326	-	33,035	-
1950	1,013	11,900	6,150	13,489	32,552	1,440	-	33,992	+8.0
1955	599	10,941	9,232	17,524	38,296	1,407	-	39,703	+9.5
1960	447	9,693	12,699	20,067	42,906	1,657	6	44,569	+3.3
1961	404	9,502	13,228	20,487	43,621	1,680	18	45,319	+1.7
1962	363	9,826	14,121	21,267	45,577	1,821	24	47,422	+4.6
1963	361	10,353	14,843	21,950	47,507	1,767	34	49,308	+4.0
1964	365	10,899	15,648	22,386	49,298	1,907	35	51,240	+3.9
1965	328	11,580	16,098	23,241	51,247	2,058	38	53,343	+4.1
1966	290	12,205	17,393	24,394	54,282	2,073	57	56,412	+5.8
1967	274	11,982	18,250	25,335	55,841	2,344	80	58,265	+3.3
1968	258	12,401	19,580	27,052	59,291	2,342	130	61,763	+6.0
1969	224	12,509	21,020	28,421	62,174	2,659	146	64,979	+5.2
1970	210	12,712	22,029	29,614	64,565	2,650	229	67,444	+3.8
1971	186	11,887	22,819	30,570	65,462	2,862	404	68,728	+1.9
1972	150	12,345	23,125	32,966	68,586	2,946	576	72,108	+4.9
1973P	140	13,380	23,558	34,689	71,767	2,941	853	75,561	+4.8

Source: U.S. Bureau of Mines

¹ Gross energy is that contained in all types of commercial energy at the time it is incorporated in the economy, whether the energy is produced domestically or imported. Gross energy comprises inputs of primary fuels (or their derivatives), and outputs of hydropower and nuclear power converted to theoretical energy inputs. Gross energy includes the energy used for the production, processing, and transportation of energy proper.

² Excludes natural gas liquids.

³ Petroleum products including still gas, liquefied refinery gas, and natural gas liquids.

P Preliminary.

Table 3: PERCENTAGE CHANGE FROM PRIOR YEAR IN UNITED STATES TOTAL GROSS CONSUMPTION
OF ENERGY RESOURCES BY MAJOR SOURCES, 1950-73

Year	Anthracite	Bituminous coal and lignite	Natural gas, dry	Petroleum	Total fossil fuels	Hydropower	Nuclear power	Total gross energy inputs
1950	-24.9	+1.9	+16.3	+11.3	+8.4	-0.6	-	+8.0
1955	-12.3	+15.0	+8.0	+8.6	+9.8	+1.4	-	+9.5
1960	-6.5	+3.9	+5.9	+1.6	+3.3	+4.1	+200.0	+3.3
1961	-9.6	-2.0	+4.2	+2.1	+1.7	+1.4	+200.0	+1.7
1962	-10.2	+3.4	+6.8	+3.8	+4.5	+4.8	+33.3	+4.6
1963	-0.6	+5.4	+5.1	+3.2	+4.2	-3.0	+41.7	+4.0
1964	+1.1	+5.3	+5.4	+2.0	+3.8	+7.9	+2.9	+3.9
1965	-10.1	+6.2	+2.9	+3.8	+4.0	+7.9	+8.6	+4.1
1966	-11.6	+5.4	+8.0	+5.0	+5.9	+0.7	+50.0	+5.8
1967	-5.5	-1.8	+4.9	+3.9	+2.9	+13.1	+40.4	+3.3
1968	-5.8	+3.5	+7.3	+6.8	+6.2	-0.1	+62.5	+6.0
1969	-13.2	+0.9	+7.4	+5.1	+4.9	+13.5	+12.3	+5.2
1970	-6.3	+1.6	+4.8	+4.2	+3.8	-0.3	+56.8	+3.8
1971	-11.4	-6.5	+3.6	+3.2	+1.4	+8.0	+76.4	+1.9
1972	-19.4	+3.9	+1.3	+7.8	+4.8	+2.9	+42.6	+4.9
1973p	-6.7	+8.4	+1.9	+5.2	+4.6	-0.2	+48.1	+4.8

P Preliminary

Table 4: UNITED STATES TOTAL PRODUCTION OF ENERGY RESOURCES BY MAJOR SOURCES, 1947-73
(in Trillions of BTU)

Year	Anthracite	Bituminous coal and lignite	Natural gas, dry	Petroleum	Total fossil fuels	Hydropower	Nuclear power	Total gross energy inputs	Percentage change from prior year
1947	1,453	16,522	5,012	10,771	33,758	1,296	-	35,054	-
1950	1,120	13,527	6,841	11,449	32,937	1,415	-	34,352	+12.3
1955	665	12,080	10,532	14,445	37,722	1,360	-	39,082	+10.8
1960	478	10,662	14,135	14,664	39,939	1,608	6	41,553	+2.1
1961	443	10,308	14,691	15,185	40,627	1,656	18	42,301	+1.8
1962	429	10,782	15,365	15,495	42,071	1,816	24	43,911	+3.8
1963	464	11,712	16,271	15,741	44,188	1,768	34	45,990	+4.7
1964	436	12,418	17,138	15,691	45,683	1,886	35	47,604	+3.5
1965	378	13,017	17,652	15,930	46,977	2,059	38	49,074	+3.1
1966	329	13,507	18,984	16,925	49,745	2,062	57	51,864	+5.7
1967	311	13,904	20,087	18,100	52,402	2,347	80	54,829	+5.7
1968	291	13,664	21,548	18,593	54,096	2,349	130	56,575	+3.2
1969	266	13,957	22,838	18,886	55,947	2,648	146	58,741	+3.8
1970	247	15,001	24,154	19,772	59,174	2,630	229	62,033	+5.6
1971	222	13,451	24,805	19,322	57,800	2,862	404	61,066	-1.6
1972	181	14,319	24,878	19,344	58,722	2,946	576	62,244	+1.9
1973p	165	14,190	25,218	18,749	58,322	2,941	853	62,116	-0.2

p Preliminary

1 Denotes first year for which figures include Alaska and Hawaii.

Table 5: PERCENTAGE CHANGE FROM PRIOR YEAR IN UNITED STATES TOTAL PRODUCTION OF ENERGY RESOURCES BY MAJOR SOURCES, 1950-73.

Year	Anthracite	Bituminous coal and lignite	Natural gas, dry	Petroleum	Total fossil fuels	Hydropower	Nuclear power	Total gross energy inputs
1950	+3.2	+17.9	+15.7	+7.2	+13.0	-0.7	-	+12.3
1955	-10.0	+17.7	+11.0	+7.6	+11.2	-	-	+10.8
1960	-8.8	+0.8	+5.8	-	+2.1	-3.7	+200.0	+2.1
1961	-7.3	-3.3	+3.9	+3.6	+1.7	+3.0	+200.0	+1.8
1962	-3.2	+4.6	+4.6	+2.0	+3.6	+9.7	+33.3	+3.8
1963	+8.2	+8.6	+5.9	+1.6	+5.0	-2.7	+41.7	+4.7
1964	-6.0	+6.0	+5.3	-0.3	+3.4	+6.7	+2.9	+3.5
1965	-13.3	+4.8	+3.0	+1.5	+2.8	+9.2	+8.6	+3.1
1966	-13.0	+3.8	+7.5	+6.2	+5.9	+0.1	+50.0	+5.7
1967	-5.5	+2.9	+5.8	+6.9	+5.3	+13.8	+40.4	+5.7
1968	-6.4	-1.7	+7.3	+2.7	+3.2	+0.1	+62.5	+3.2
1969	-8.6	+2.1	+6.0	+1.6	+3.4	+12.7	+12.3	+3.8
1970	-7.2	+7.5	+5.8	+4.7	+5.8	-0.7	+56.8	+5.6
1971	-10.1	-10.3	+2.7	-2.3	-2.3	+8.8	+76.4	-1.5
1972	-18.5	+6.5	+0.3	+0.1	+1.6	+2.9	+42.6	+1.9
1973P	-8.8	-0.9	+1.4	-3.1	-0.7	-0.2	+48.1	-0.2

Source: U.S. Bureau of Mines

Preliminary

Prices: Further insight into why our economy has become increasingly energy intensive can be gained from reviewing historical price information with respect to energy sources. (Table 6) In addition to rising incomes and increases in population, the cost of energy resources has exhibited either relative stability or an actual decline in real prices (noninflated prices) over the 1962-1972 period. The 1972 average wellhead price for natural gas was virtually identical to what it was 13 years before. On the other hand, domestic crude oil prices had actually dropped by an average 1.5 percent annually over that same time period. Of course, the 1973-1974 values will show substantial increases in real prices. The effects of such increases on domestic production and supply will, however, require substantially longer periods of time before they become apparent.

Until 1973, foreign crude oil prices had exhibited only a moderate annual increase and, contrary to good free market economics, had been maintained below the domestic market price by virtue of our now defunct oil import quota program. The average cost per kilowatt hour of electricity had also declined by an average rate of 2.4 percent through 1972. Obviously, as labor costs have increased, it has been wise economics on the part of our industrial, commercial and transportation systems to replace manpower with the use of energy to drive mechanical devices. Only the price of domestically produced coal had increased to some extent by 1972 and then, only due to environmental and safety regulations.

Although historical price data, along with our knowledge of other demand influencing factors, leads to a rational explanation for our increasing per capita consumption of energy resources, only recently has the effect on production become apparent. Natural gas and petroleum extractions have been increased annually until 1972. The implication is that an unlimited supply of energy was available at relatively stable prices. However, the appropriate values to compare are not price and annual production but price and annual reserve discoveries and additions. All fossil fuel production takes place from known reserves and it is the annual rate of reserve finds which is the crucial factor in formulating future production schedules and contractual commitments for production. Annual reserve finds for crude oil have been less than annual production in 9 of the past 14 years. For natural gas, reserve finds have been less than annual production in 5 of the past 6 years. These results indicate a declining reserve to production ratio which means an increasingly critical problem with domestic production from these sources in the immediate future unless appropriate policy actions are taken. We have been living off our past success. Only coal has sufficient known reserves to make its annual production directly dependent on market price. So you can see we are leading ourselves to a major gap between annual demand and annual production.

Sectorial Demand: It is also instructive to review historical consumption patterns for energy. (Table 7) Energy statistics have traditionally classified use sectors as industrial, transportation and household and commercial. Of the net energy consumption in the United States economy, almost 39 percent is attributable to the industrial sector, while the transportation sector utilizes just under 30 percent and the household and commercial sectors just over 30 percent. Unfortunately, these definitions are somewhat misleading. For example, the transportation component of each sector is included under the transportation sector and not as part of final household or industrial demand. For each individual sector of final demand, the source of energy consumed differs widely.

Table 6: FOSSIL FUEL PRICES: 1960-1972 (1972 dollars)*

Year	Domestic Natural Gas		Domestic Crude Oil: Average Well-head Price/Barrel	Foreign Crude Oil: Weighted Average Cost (Landed)	Petroleum Products		Domestic Coal Average F.O.B. Mine Price/Ton	Electricity Ave. Cents/KWH
	Average Wellhead Price/MCF	New Gas Interstate Price/MCF			Gasoline	Residual		
1960	\$.198	NA	\$4.07	\$---	\$---	\$.0652/gal	\$6.62	\$.0239
1961	.211	NA	4.03	2.48	--	.0641	6.39	.0236
1962	.214	NA	4.00	2.69	--	.0626	6.18	.0232
1963	.215	NA	3.93	2.78	.1971/gal	.0597	5.98	.0225
1964	.206	NA	3.86	2.67	.1898	.0576	5.96	.0217
1965	.205	NA	3.76	2.66	.1942	.0607	5.84	.0209
1966	.201	.236	3.69	2.68	.1951	.0583	5.81	.0200
1967	.199	.237	3.61	2.89	.1959	.0544	5.73	.0194
1968	.196	.229	3.51	2.92	.1916	.0499	5.57	.0185
1969	.190	.225	3.52	2.94	.1905	.0467	5.68	.0175
1970	.185	.225	3.43	3.01	.1877	.0645	6.75	.0172
1971	.188	.232 (approx.)	3.49	3.17	.1854	.0750	7.28	.0174
1972	.196	Probably exceeds .300	3.39	3.03	.1722	.0585	7.46	NA

Source: Office of the Secretary, U.S. Department of the Interior

* Implicit price deflator for total gross national product used for columns 1, 2, 3, 7 and 8; for imports for column 4, and for total personal consumption expenditures for columns 5 and 6.

Table 7: DEMAND FOR ENERGY INPUTS TO INDUSTRIAL SECTOR, 1947-73

Year	Natural Gas		Petroleum		Coal		Electricity Purchased		Total Sector Inputs Trillion BTU
	Million cubic feet	Trillion BTU	Million barrels	Trillion BTU	Thousand short tons	Trillion BTU	Billion Kilowatt-hours	Trillion BTU	
1947	2,905,571	3,007	423.0	2,517	273,403	7,298	135	459	13,281
1950	3,601,757	3,727	446.8	2,666	223,507	5,957	164	559	12,909
1955	4,768,562	4,935	579.8	3,406	214,946	5,726	295	1,008	15,075
1960	6,074,114	6,287	643.9	3,682	175,225	4,673	383	1,306	15,948
1961	6,221,668	6,471	642.6	3,682	168,090	4,478	383	1,306	15,937
1962	6,579,008	6,842	678.8	3,880	169,995	4,427	411	1,402	16,651
1963	6,917,738	7,160	702.0	3,994	178,201	4,754	429	1,464	17,372
1964	7,198,706	7,451	744.6	4,184	189,561	5,063	453	1,544	18,242
1965	7,433,200	7,671	740.4	4,139	200,688	5,366	479	1,634	18,810
1966	7,948,486	8,203	781.0	4,353	204,945	5,472	524	1,788	19,816
1967	8,332,614	8,599	798.4	4,432	194,595	5,199	547	1,868	20,098
1968	8,987,095	9,274	897.2	4,965	191,602	5,124	599	2,044	21,407
1969	9,587,670	9,885	943.6	5,171	188,586	5,051	632	2,155	22,262
1970	9,856,844	10,162	961.4	5,267	186,637	5,004	648	2,210	22,643
1971	10,252,000	10,570	927.3	5,094	159,320	4,330	672	2,293	22,287
1972	10,272,082	10,591	1259.3	5,668	160,624	4,267	731	2,493	23,054
1973 ^p	10,500,000	10,825	1344.3	6,043	166,325	4,454	783	2,671	24,028

Source: Division of Fossil Fuels, Bureau of Mines, U.S. Department of the Interior.

P Preliminary

For the industrial component, over 45 percent of its net energy intake is derived from natural gas, over 25 percent from petroleum and only 19 percent from coal and 11 percent from electricity. For the transportation component, (Table 8) over 95 percent of net energy intake is from the petroleum sector. The household sector (Table 9) derives 42 percent of its net energy intake from natural gas and almost 37 percent from petroleum with 19 percent from electricity and the remainder from coal. The electrical energy sector, derives 44 percent of its basic energy needs from coal with 20 percent from natural gas and 17 percent from petroleum.

If viewed from the standpoint of each individual source, the transportation sector counts for almost 52 percent of total petroleum use, whereas 20 percent is used by the household sector, 17 percent by the industrial sector and 10 percent by the electrical generating sector. Almost 46 percent of natural gas consumption takes place in the industrial sector, with 34 percent in the household sector, and 17 percent in the electrical sector. Almost 64 percent of coal is used to generate electricity and the remainder is largely used for industrial purposes. From these values, it is obvious that if petroleum is in critical supply, cuts in transportation usage are preordained.

Reserves: Given some background on our historical rates of consumption and production, it will be instructive to briefly review the state of energy reserves both domestically and worldwide. (Table 10) The question is: are we running out of energy resources and does the future hold conditions of increasing energy scarcity? Unfortunately, data on our energy reserves are far from perfect. For most of the basic sources of energy, only the discovered or proven resources which are recoverable at historical prices are tabulated. Known reserves available at higher prices are not usually estimated. Estimates of undiscovered reserves, of all types, are largely educated guesses. Estimates of these "speculative" and "probable" reserves vary over a wide range for both the U.S. and the rest of the world. It is known that we have well over a 100 years supply of coal at current rates of production without major price increases. On the other hand, the reserve to production ratio for both natural gas and crude oil has fallen to between 10-1 and 12-1 in recent years. For natural gas this has been a continuous drop from 37.5-1 in 1945. The ratio for crude oil has (Table 11) remained fairly constant over time due to periodic reserve additions from large discoveries such as Prudhoe Bay in Alaska.

On the other hand, American Petroleum Association estimates indicate that over 136 billion barrels of oil remain to be recovered domestically. Similarly, the Potential Gas Supply Committee has estimated over 1,146 trillion cubic feet of natural gas reserves remain to be discovered. U.S. Geological Survey estimates concur with the general notion that major undiscovered energy resources are available for future exploitation. Of course, the probability of achieving all such speculative reserve estimates is unknown. However, it is certain that the cost required would mean market prices in excess of those prevailing historically. Drilling deeper wells in deeper waters offshore will be required. As prices increase, alternative energy sources such as oil shale and tar sands will also become economical.

In summary, most observers do not foresee shortages of fossil fuel energy resources either domestically or worldwide for 25-30 years. Reserves are available if the economic and institutional factors can be solved. Even with respect to the domestic situation, adequate resources appear to be obtainable for the foreseeable future, although substantial price increases may be required to tap known and potential reserves. We have sufficient reserves, the problem is to find an institutional and a market mechanism for getting those reserves to the consumer.

Table 8: DEMAND FOR ENERGY INPUTS IN TRANSPORTATION SECTOR 1947-1973.

Year	Coal ¹		Petroleum ²		Natural Gas		Electricity Purchased		Total Energy Input Trillion BTU
	Thousand short tons	Trillion BTU	Million barrels	Trillion BTU	Million cubic feet	Trillion BTU	Kilowatt-hours	Trillion BTU	
1947	113,324	3,030	1,050.3	5,761	Neg	-	8	29	8,820
1950	63,783	1,701	1,248.8	6,785	125,546	130	7	24	8,640
1955	17,429	464	1,691.4	9,109	245,246	253	6	19	9,845
1960	3,294	87	1,934.1	10,372	347,075	359	5	18	10,836
1961	770	21	1,971.9	10,575	377,607	390	6	19	11,005
1962	687	18	2,051.3	11,001	382,496	396	5	18	11,433
1963	670	18	2,146.7	11,506	423,783	438	6	19	11,981
1964	711	19	2,198.9	11,791	435,570	451	6	20	12,281
1965	655	18	2,271.9	12,179	500,524	517	5	18	12,732
1966	609	16	2,382.6	12,777	535,353	552	5	16	13,361
1967	467	13	2,497.1	13,408	575,752	594	5	17	14,032
1968	417	11	2,703.8	14,535	590,965	610	5	18	15,174
1969	313	8	2,815.8	15,125	630,962	651	5	17	15,801
1970	298	8	2,902.8	15,592	722,166	745	5	16	16,361
1971	214	6	3,032.3	16,286	742,788	766	5	17	17,075
1972	163	4	3,187.2	17,264	766,156	790	5	17	18,075
1973p	175	5	3,308.1	17,927	790,000	814	5	18	18,764

Source: Division of Fossil Fuels, Bureau of Mines, U.S. Department of the Interior

p Preliminary

1 Includes anthracite, bituminous, and lignite coals.

2 Includes bunkers and military transportation.

Table 9: DEMAND FOR ENERGY INPUTS IN HOUSEHOLD AND COMMERCIAL SECTORS, 1947-1973.

Year	Natural Gas		Petroleum		Coal		Electricity Purchased		Total Energy Inputs Trillion BTU
	Million cubic feet	Trillion BTU	Million barrels	Trillion BTU	Thousand short tons	Trillion BTU	Billion Kilowatt-hours	Trillion BTU	
1947	1,087,000	1,125	385.3	2,251	128,657	3,399	115	391	7,148
1950	1,586,207	1,642	526.2	3,038	110,422	2,913	160	546	8,139
1955	2,753,171	2,849	691.7	4,001	66,039	1,745	250	854	9,449
1960	4,123,389	4,268	853.3	4,923	37,180	983	370	1,262	11,436
1961	4,325,427	4,477	871.9	5,028	32,805	868	406	1,385	11,758
1962	4,685,231	4,849	907.7	5,227	32,955	872	437	1,490	12,438
1963	4,856,804	5,027	915.0	5,258	27,603	731	482	1,645	12,661
1964	5,162,009	5,343	903.7	5,191	22,949	609	525	1,792	12,935
1965	5,346,450	5,517	978.0	5,635	25,676	678	571	1,948	13,778
1966	5,760,999	5,945	1,000.1	5,766	25,587	677	616	2,101	14,489
1967	6,029,855	6,223	1,078.9	6,206	22,134	585	661	2,257	15,271
1968	6,250,997	6,451	1,069.5	6,129	19,983	529	723	2,467	15,576
1969	6,682,804	6,890	1,099.6	6,269	16,875	447	807	2,752	16,358
1970	6,894,007	7,108	1,128.4	6,453	16,114	427	879	3,000	16,988
1971	7,144,398	7,366	1,131.2	6,440	15,253	408	941	3,209	17,423
1972	7,412,543	7,642	1,169.3	6,687	14,605	387	1,020	3,478	18,174
1973P	7,760,000	8,001	1,228.3	7,024	13,963	370	1,093	3,727	19,122

Source: Division of Fossil Fuels, Bureau of Mines, U.S. Department of the Interior.

P Preliminary

Table 10: ESTIMATES OF UNITED STATES RECOVERABLE ENERGY RESERVES - Dec. 31, 1971¹.

Energy Source	Units	Quantity	Trillion BTU
1. Anthracite Coal	,000 short tons	8,035,300	204,097
2. Bituminous Coal and Lignite	,000 short tons	578,397,000	14,089,751
3. Crude Oil	,000 barrels	38,062,957	220,765
4. Natural Gas Liquids	,000 barrels	7,304,227	33,746
5. Natural Gas	,000,000 cu. ft.	278,805,618	287,449
6. Uranium	,000 pounds recoverable U_3O_8	546,424	-----
7. Shale Oil	,000 barrels	600,000,000	3,480,000
8. Tar Sands	,000 barrels	17.7-27,600,000	-----

¹Coal reserves based upon economically recoverable resource at current prices. Uranium reserves based upon \$8.00 per pound U_3O_8 . Oil and gas reserves based upon API and AGA power reserve estimates. Shale oil reserves include only Green River Formation reserves which average 25 gallons of oil per ton.

Source: U.S. Bureau of Mines

Table 11: UNITED STATES NET TRADE, CRUDE OIL - 1947-1973
(In Million BBLs)

Year	Exports		Imports		Net trade	
	Crude oil	Product	Crude oil	Product	Crude oil	Product
1947	-46	-118	98	62	52	-56
1950	-35	-77	178	133	143	+56
1955	-12	-123	285	170	273	+47
1960	-3	-71	372	293	369	+222
1965	-1	-67	452	449	451	+382
1970	-5	-90	483	765	478	+675
1971	-1	-81	613	820	612	+739
1972	-0.2	-80	811	924	811	+843
1973 ^P	-0.5	-85	1,178	1,066	1,178	+981

Source: U.S. Bureau of Mines

^P Preliminary

Current Situation

Coal: I suspect that individuals in this audience do not have a substantial interest in the current problems associated with coal usage. However, coal becomes important because it is an alternative fossil fuel which can, to some extent, replace our heavy reliance on petroleum and natural gas. Consequently, it takes on some importance in the short-run and can, potentially, be critical to our long-run self-sufficiency objectives. The current problems with coal can be summarized quickly. They include:

1. Environmental restrictions, sulphur content, including air pollution requirements and potential requirements with respect to strip mining.
2. The ramifications of the Mine, Health and Safety Act.
3. The location of reserves and the type of coal deposits prevalent in those reserves; a lot are in the west, a lot are low in BTU content.

All these factors inhibit short-run increases in coal production. Policy proposals to relax environmental restrictions have, however, been recently put forth. Action on the relaxation of such restrictions requires Congressional approval. In any case, rapid shifts from other fossil fuels to the use of coal will depend upon available technology, the possibilities of increased use in current production processes, and the absence of equipment and manpower constraints. In general, although a tendency toward increased coal usage occurred in 1973 and should continue through 1974, the impact on reduced petroleum usage should be relatively small. However, a series of factors such as this can have a cumulative effect on reducing our current shortage problems.

Oil: For both the short and long-run, petroleum is the most critical area of concern for United States energy policy. Because of the dependence of our entire transportation sector on petroleum products, oil becomes a critical factor in the economic outlook of the nation. Specific economic sectors, such as recreation and tourism are directly dependent on the availability of petroleum to the consuming public. However, to a large extent, both directly and indirectly, the entire economic outlook of the country depends upon access to petroleum products. Even without the Middle Eastern war, petroleum would have been in tight supply last winter. With the end of the embargo, some shortages of gasoline are likely during the summer months. This situation of continued spot shortage in various petroleum product markets is due to several major factors. First, due to our oil import quota program, which was terminated last March by Presidential order, oil companies have not increased refinery capacity within the United States of the past 5-7 years. Because they could not be guaranteed an assured supply of oil from foreign sources (due to the quota program) no refinery construction was undertaken. At the same time, much of the international oil company expenditure for exploration and resource development was channelled overseas because easily found reserves in the United States had been exhausted, the cost of overseas exploration per production unit was substantially lower and United States tax laws provided an incentive for exporting production capacity. Therefore, maximization of company profits called for foreign investments. Reduced drilling and reserve finds in the United States resulted even though the quota program maintained domestic oil prices at a premium to foreign prices for landed oil. The differential involved was insufficient to maintain adequate domestic exploration.

These twin factors largely accounted for the failure of the oil import quota program and its replacement last spring with a tariff. That tariff was purposely created with a differential between crude oil and petroleum product imports. Product imports are taxed at higher rates so as to encourage domestic refinery construction. Presently, with the substantial increase in world prices, that differential has very little effect on company decision making. Rather, the issue of guaranteed supplies appears to be again inhibiting company behavior with respect to refinery construction. Because of the volatile world oil situation, major petroleum companies feel that the substantial investments required for refinery construction cannot be undertaken at the present time. Moreover, since refinery construction takes a minimum of 3 to 4 years, the major oil producing countries seem to have gained the upper hand in forcing higher proportions of the crude oil supplies furnished by them to be refined on their own soil. I look for an increased emphasis on this point in the future by OPEC countries. This will make it more difficult for us to obtain self-sufficiency in refinery capacity unless we are able to maintain self-sufficiency in our production of crude oil itself. Moreover, the supply pipeline will become excessively complicated and less efficient due to the logistics of maintaining separation between the multiple products obtained from a crude oil barrel. The oil companies also seem to be taking a shortsighted view of the situation in light of the announced intention by the United States to substantially expand lease sales of federal oil properties.

Although we have been actively leasing Outer Continental Shelf lands for over 19 years, less than 2 million barrels per day of our domestic production stems from these areas. The dominant governmental policy has been to maximize revenue to the government from the leasing of these lands rather than to maximize production. In addition to increasing our dependence on foreign sources, this policy has resulted in a major capital drain that could have been used for domestic exploration. U.S. policy can be contrasted with that of Great Britain and the North Sea area. Here, exploration has been underway for less than five years and production is expected to reach over 2 million barrels per day by 1978. Recently announced increases in our offshore leasing program to 10 million acres per year should have a desired effect on increased production. However, equipment and manpower constraints as well as the normal time lags involved in exploration, development and production suggest that this increased production will not be apparent before 1978 to 1979.

A third item contributing to the lack of domestic petroleum supply is failure to construct the Trans-Alaska pipeline. Although this pipeline will have little or no effect upon the supply and demand situation east of the Rockies, it would make the west coast of the United States substantially independent from foreign oil sources through the 1980's. Fourth, most U.S. refineries are structured to process domestic crude (sweet crude) which is of low sulfur content. Since foreign crude, on the other hand, is predominantly high in sulfur content (sour crude), our refineries are not well suited to its processing. This has caused a further problem with refinery capacity in the United States. Currently, we are consuming between 17 and 18 million barrels per day while our refinery capacity is just 14 million barrels per day. The remainder must be satisfied by imports of petroleum products. In fact, our petroleum product imports exceed those of foreign crude oil. Product imports complicate our transportation logistics and require longer term contract if assured sources of supply are to be guaranteed.

A final item which has complicated our overall petroleum supply situation is the lack of deep water ports on the east and Gulf coasts of the United States. Governmental inaction on this question has prevented substantial reductions in transportation costs of both foreign crude oil and petroleum products. In addition, the environmental risks of importing over 35 percent of our petroleum consumption is substantially higher because of many small, inefficient and outdated tankers.

Although the national security and the national independence arguments for self-sufficiency now seem more persuasive than they did during the late fifties and early sixties, it is difficult to see how the United States with its requirements for imports can become self-sufficient in petroleum anywhere in the near future. Capital and equipment requirements for exploration and reserve development, alone, make this task nearly impossible. However, the current status of our offshore leasing policy (with annual lease sale acreage increased ten-fold) may help make a substantial reduction in import requirements by the 1977-1978 period. In the interim, our domestic situation with respect to petroleum and petroleum products is at least partially governed by the stability of world markets and the market power of the oil producing countries.

Natural Gas: Contrary to popular opinion, most natural gas found in the United States is not associated with the production of oil. Over 70 percent of our natural gas production comes from wells unassociated with oil finds. Depending upon your viewpoint, the natural gas scarcity problem boils down to one of three factors. First, the lack of additional reserves available for discovery. Second, monopolistic behavior of natural gas producers who are inhibiting production in order to maintain high profits in intra-state (unregulated) markets. Third, the regulatory policies of the Federal Power Commission with respect to interstate wellhead gas prices. A fourth and possible contributing problem is the previous slow pace of leasing Outer Continental Shelf lands.

Most observers discount the first issue as being unsubstantiated by geological data. A great deal has been written concerning the competition question. I am not convinced, however, that monopoly power exists among natural gas producers. The predominant weight of economic opinion agrees with this conclusion. Rather, the artificially low wellhead prices established by the Federal Power Commission for interstate natural gas sales appear to be the major cause of developing shortages. Rather than a highly elastic supply function for natural gas, which was thought to exist by many economists in the early sixties, it is now clear that the supply function is more inelastic and that artificially low prices have both restricted exploration and encouraged massive shifts in demand to natural gas. These shifts have been encouraged by our air pollution law requirements and by the convenience features of this energy source. As a result, natural gas has become the major energy source for the industrial and household sectors. Only in the transportation sector, where technology has locked us into petroleum, has a massive shift to the use of natural gas been avoided.

The Outlook

Environmental restrictions on the use of coal, faulty governmental and industry policies with respect to oil, and low regulated prices for natural gas have exasperated our fuel situation by causing massive shifts in demand and reduced exploration domestically. Government policy towards

refineries, superports and consumer prices has further aggravated the situation. Technology aimed at reducing pollution emissions from the burning of petroleum products has increased our use of such products. Natural gas scarcities, which began to show up in 1970, resulted in further demand shifts toward low sulfur petroleum and petroleum products. Finally, the monopoly power of the cartel known as OPEC resulted in world-wide disruptions of the energy market (with respect to both supplies and prices) for economic and political reasons.

Given the end of the recent oil embargo, what then is the short-range and long-range outlook for domestic energy? The short-range is potentially uncertain. The pressure is obviously off both government agencies and the consuming public. Recent demand for gasoline has already started to climb at a rapid rate back to normal as far as weekly increases. However, the threat of a possible reimposition of the oil embargo in two months and the possibility that full production will not be restored by OPEC makes forecasting difficult. In addition, the pricing behavior of the oil exporting nations will probably change substantially over the next 6 months.

At the same time, substantial increases in oil product prices are bound to have a dampening effect on domestic demand and an encouraging effect on exploration. As a general proposition, it appears that federal officials are taking an optimistic outlook with respect to the overall situation. Drawdowns in the relatively high domestic stocks of petroleum products are being permitted by federal officials with the view of reducing end of month gasoline shortages during the spring season. Such drawdowns will probably be permitted to continue until Arab oil supplies can arrive in the United States (in about 2 months) unless a possible reimposition of the embargo appears eminent. In such a case, inventory stocks would again be built up as a safeguard against major disruptions.

Because of changes in refinery output during the winter season (to encourage fuel oil production) and due to our tight refinery situation, we appear headed for at least spot shortages of gasoline during the summer months. Substantial price increases will mitigate these shortages to some unknown extent and unless the world supply situation again becomes unstable, shortages should be no more severe than occurred during the summer of 1973.

Because of the substantial tax increases imposed by the OPEC countries on petroleum exports, somewhat higher prices appear to be guaranteed as these oil sources are imported. The result will be a substantial increase in inflationary pressures as these price increases are transmitted through the economy. In general, gasoline prices will probably vary over the next six month period in the range of \$.50 to \$.70 per gallon.

The west coast faces a tighter supply-demand situation in gasoline than the rest of the country. This factor, combined with higher consumer prices and the uncertainty concerning spot gasoline shortages, will probably cause some modifications in consumer behavior during the summer tourist months. Trips which retain the tourist closer to his home will increase. However, this factor combined with the end of the ban on Sunday gasoline sales and a relaxation of the odd-even day gasoline allocation program, should result in a travel season as good as, if not better than, that of 1973 for tourist areas in the eastern United States.

Finally, the ending of the oil embargo along with other economic factors seems to imply that the unemployment rate will not greatly exceed six percent during the remainder of 1974. This will be accompanied by only moderate real growth in gross national product and an inflation rate approaching 8 percent. The combined effects will serve to moderate the rate of increase in discretionary spending by consumers.

What of the longer term? First, if our political resolve to become independent of a single petroleum supply source persists, prices will need to maintain the current high levels in order to encourage domestic exploration, development of technology to utilize our abundant resource (coal), and to reduce the rate of growth in domestic consumption. The alternative to such a course of action is a perpetual system of import dependence.

On the other hand, the OPEC countries are perfectly capable of doing an about-face in their present export policies if they see a long-term threat to their largest markets, namely the U.S. It would not be surprising to see reductions in foreign prices within the next six months. These reductions will probably continue at a slow rate over the next several years. The objective will be to force the United States into a reconsideration of its policy for complete self-sufficiency in energy production. This reconsideration will require the federal government to consider policies such as a new oil import quota program, higher tariff rates or guaranteed prices for certain aspects of domestic energy production. All such courses of action would naturally require higher consumer prices or substantial tax revenues. Trade-offs between consumer prices, self-sufficiency and potential alternative sources of domestic energy supply must be made as a major component of our long-term energy decisions.

In any case, the announced program of "Project Independence" is considered by most experts to be infeasible and unworkable by 1980. This is particularly true in the petroleum sector. Even with sharp price increases curtailing the rate of growth in petroleum consumption and encouraging domestic exploration, most forecasting models do not foresee any drop in our need for imports on an absolute basis. Even with massive shifts in demand away from petroleum to natural gas and/or coal resources and a substantial increase in federal leasing policy for offshore areas, it is difficult to forecast a U.S. production of more than 15 million barrels per day of crude oil by 1985. At best, we will be able to hold domestic consumption to around 21 to 22 million barrels per day. Thus, at least modest annual increases in our rate of imports must be accommodated. Such forecasts assume long-term prices in the area of \$9 to \$10 per barrel at the wellhead which is approximately 2.5 to 3 times the 1972-1973 domestic price.

Third, without legislation to deregulate the wellhead price of natural gas or substantially higher regulated prices, our supply of natural gas will continue to dwindle with resultant curtailments in usage and economic dislocations. Free market pricing in the natural gas area could alleviate the shortage situations within a period of five years.

Finally, the energy problem is fundamentally one of economics and, specifically, energy prices. Higher prices will result in substantial changes in energy markets with the resultant effect that Americans will be forced to realize that substitution in terms of their lifestyles may be economically beneficial. Thus, slowly changing but ultimately rather pervasive changes in how America conducts its business should be apparent over the next 10 years.

Discussion

Question:

If I remember reading correctly, there has been some trouble on the New England Coast relative to building refineries. If we need refineries, then why isn't something happening to start building them?

Response:

You are saying they are trying to build them and yet they can't? The east coast situation revolves around an environmental problem. The situation you refer to is in New Hampshire, and stems from a proposal by Onassis to build a huge refinery by Durham that has been stopped by the local citizenry because there appear to be environmental pollution aspects. We have additional problems with refinery construction on the east coast; pollutant output, and we have a major problem with ground water supply. For example, no refineries could ever be built on Long Island where they don't have sufficient water supply. We also have water supply problems with major concentrations in New Jersey and Maryland. So we have got some physical constraints on building refineries on the east coast. That doesn't mean to say that we shouldn't be starting to build refineries on the east coast. We have now seen, I think, a very short sighted view on the part of the oil companies with respect to the start of construction on new refineries, mainly because they don't feel that they have an assured supply of worldwide crude. This does not look at the possibility of increased offshore production in the Gulf and perhaps on the Atlantic, which would meet the demand of new refineries if they were started now. In fact the time path of these two developments is very parallel. It is going to take about four years to get offshore production geared up and it is going to take about 4 years to get the refineries built.

Question:

Are we still exporting oil?

Response:

A very small amount, to Canada, mostly.

Question:

Then, would a breakup of the control from the hole in the ground to the gas pump alleviate any of this problem?

Response:

It depends on whether you believe in the conspiracy theory with respect to the oil companies and whether they are monopolies. This is being suggested by the Federal Trade Commission, that the control, the vertical integration from production, refinery, transportation and retailing essentially permits monopoly power on the part of the company. Quite frankly, in the short term situation it probably wouldn't have had much effect, because that is partly the result of the Middle East in the embargo, and partly a result of the companies' economic incentives. These wouldn't have changed one iota, whether they are a monopolist or not, with respect to where they should concentrate their production activity. The differential in cost is so extreme between the Middle East and the U.S. that they are going to have to go to the Middle East every time if they see a stable world situation, because you can produce oil over there for about 15¢ a barrel. Over here it is 5 times that, at the least. So, although we might lower consumer prices ultimately by breaking up a monopoly, probably this

approach would not have helped the current shortage. We are exporting some to Canada, but if you think about how much we get, in terms of crude oil, from Canada that is a very small price to pay.

ENERGY AND OUTDOOR RECREATION - ADJUSTMENT

Tom deRocco, Information Officer
Northeast Regional Office, Bureau of Outdoor Recreation

I am delighted to represent the Bureau of Outdoor Recreation at this most important conference.

In the letter inviting us to take part in today's meeting, we were asked to provide you with the results of a series of recent meetings the Bureau held with representatives of business, industry, private organizations, conservation groups and governmental agencies...and to share with you some of the recommendations that grew out of those meetings on Energy and Outdoor Recreation.

Before I get into that area, however, I would like to take just a moment to say a few words about the Bureau of Outdoor Recreation so you will have a perspective on BOR's role in dealing with the energy situation as it relates to outdoor recreation.

The Bureau of Outdoor Recreation

The Bureau of Outdoor Recreation is the recreation policy and planning agency for the Secretary of the Interior. Our mission is to help increase recreation opportunities for all Americans by planning and coordinating recreation policy and programs at Federal, State and Local levels. Unlike most federal agencies concerned with outdoor recreation, the Bureau does not manage lands or waters, nor do we act as property caretakers.

One of the Bureau's principal activities in managing the Land and Water Conservation Fund Program which provides grants to state and local governments for the acquisition and development of outdoor recreation areas and facilities.

We are also responsible for:

- * The coordination of plans and activities of more than 200 federal programs involving outdoor recreation interests...
- * The development of a Nationwide Outdoor Recreation Plan. The first such plan was issued in December 1973, "Outdoor Recreation, a Legacy for America"...
- * Environmental protection through the preparation and review of environmental impact statements...
- * Resource studies of areas that might be designated as National Parks, Recreation Areas, Wild & Scenic Rivers Trails...
- * Technical assistance services to all levels of government and the private sector with interests in outdoor recreation...
- * Surplus property assistance to the President's Property Review Board property might be transferred to state and local governments for park and recreation use...

BOR's Role in Energy & Outdoor Recreation

Because the Bureau has a coordination function to perform, and in fact has been called the Federal Focal Point in Outdoor Recreation, Secretary of the Interior Morton asked the Bureau to undertake an examination of the implications of the energy crisis for our recreation, park, wildlife, and related programs. The request was made in the form of a memorandum dated December 4, 1973 from the Secretary to Jim Watt, Director of the Bureau of Outdoor Recreation.

In mid-December, a series of meetings were held in Washington with some 70 representatives of outdoor recreation agencies, business and industry organizations, and major trade associations. The highest levels of corporate and governmental entities attended, and they came well-prepared to discuss ways and means of meeting or at least living with the energy crisis.

The Meetings

A number of major points were made during these meetings and I'll share them with you in a moment. But I think it is worth repeating something Secretary Morton said to those in attendance: "The energy shortage is real - it is not contrived." It is worth repeating because there has been doubt in the minds of some people that there really is an energy problem. I can only echo the Secretary's words and assure you that we do have such a problem, and that it will continue for some time despite recent favorable developments in the Mid-East.

Now, as to what came out of those meetings and what industry and recreation organization representatives had to say...

Gerald P. Gross, Executive Vice President, Sports Coach Corporation of America, presented a statement on behalf of the Recreational Vehicle Industry and made the following points:

- * The Recreational Vehicle Industry has formed an industrywide Energy Conservation Commission.
- * Some 70 related groups have begun an Energy Conservation Corps.
- * A National Public Relations Program to be underway soon will include such ideas as: Family recreation is necessary and good for America... Families using their recreation vehicles have shut off the energy use at home...Ten gallon weekends...Go Camping - Save Energy... You Don't Have to go very Far to Get Away From it All.

Howard F. Larson, Vice President, Outboard Marine Corporation, delivered a statement on behalf of the boating industries. Mr. Larson said if all recreational boating were shut down, we could save about 8 gallons of gasoline per automobile in the United States each year. He called for development of access at nearby boating waters.

A representative of the Florida Yacht Club Council said boating is dying today and that the boating industry is "facing absolute disaster". He

cited a need to know what fuel limitations would be so the industry could plan around them.

A marina operator and boat dealer in the state of Maryland, said about \$200 million is spent on boating each year in the state and that some 523 registered dealers face a very bleak period. However, with knowledge about cuts, adjustments can be made to live with it.

A contingent of urban and state recreation administrators headed by Dwight Rettie, Executive Director, National Recreation & Park Association, cautioned that recreation is a vital part of the daily lives of Americans. Irving Clay, Commissioner of Recreation, St. Louis, predicted "dire consequences if we have increased unemployment and no recreation programs to take up the enforced leisure time."

We also heard from representatives of the Snowmobile Industry, the National Ski Areas Association, from outdoor resorts people and a host of others too numerous to detail here.

From a session with representatives of 25 conservation organizations, proposals offered included:

- * An endorsement of non-mechanical transportation within the National Parks.
- * Rationing, which would help to solve many administrative problems and allow the individual to decide how to conserve and use his share.
- * AMTRAK type transportation and mass transit of all kinds to convey cars and trailers to the recreation scene.
- * Emphasis on the recreation opportunities close to home.

In a meeting with federal agency representatives, suggestions included:

- * Precautions to assure the individual the right to use his share of energy as he wishes...
- * Shift federal programs to the areas which are accessible to large population concentrations...
- * Encourage and educate the public to use forms of recreation which do not consume energy...and...
- * Shift within the Land & Water Conservation Fund Program to assist parks, recreation areas, trails, etc., close to urban areas.

While these meetings were being held, letters from the Bureau Director went out to several hundred business leaders, private organizations, universities, and conservation organizations requesting their advice and counsel.

These responses resulted:

Kampgrounds of America, Inc., said the camping industry must help to bring the outdoor environment closer to population centers and encourage the public to recreate closer to home for longer periods to cut in-transit energy use.

The National Boating Federation provided a resolution in which the Federation urged individual boatment to operate at efficient speeds, and boating organizations, power squadrons, Coast Guard Auxiliary, and others to assist in obtaining voluntary compliance.

The Outboard Marine Corporation suggested addition and expansion of shore area parks and recreation areas and development of nearby fishing areas.

The Executive Director of the Recreation Vehicle Dealers of America said an intensive public education campaign will be carried out to encourage more camping as a conservation measure.

The Environmental Law Institute urged the Bureau to concentrate on long-term energy conservation measures: Getting the public to use the most efficient means of transportation such as trains and buses...discourage auto use to and from areas...purchase and develop close-in recreation areas.

The United Auto Workers Union suggested establishment of reception centers at key points where buses could take campers, hikers, cyclists, skiers and sightseers to facilities. They also suggested the use of mini-bus, mini-train and even horse and buggy transport in National Parks.

The American Bikeways Foundation...American Youth Hostels and others called for extending trails systems, particularly near urban areas.

Richard Pough, President of the Natural Area Council urged that steps be taken to make every body of water easily accessible to water-based recreation activities, since many such bodies of water close to urban areas are completely blocked by private property across which access is denied.

Robert S. Nobis, Executive Secretary, Outdoors Unlimited, Inc., said both public and private organizations could initiate a public information program recommending in-state vacations and pointing out key outdoor recreation sites with each state.

Again, I could go on at some length, but the preceding random samplings are representative of the responses we obtained.

From the several meetings and the samplings of opinion we received by mail, while reactions differed, there was virtually unanimous agreement on the following points:

* Recreation is a fundamental social necessity and both public and private recreation activities and enterprises should be supported by government policies and programs...

* Freedom of choice - in our free society, individuals are entitled to use whatever energy is allotted to them as they see fit. This free choice is essential if a large portion of the recreation industry is to survive. Free choice is even more essential in satisfying the recreation needs of all the nation's citizens...

* Equal treatment - the \$100 billion recreation industry provides some 2.3 million jobs. As an industry, it deserves exactly the same treatment during the energy crisis which other industries receive -- no better, no worse. Arguments that energy must be provided to preserve jobs apply equally to all segments of the economy, including recreation business and industry...

* Transportation innovation - efforts to increase transportation efficiency for both business and leisure time must be accorded the highest priority...

* Urban emphasis - energy shortages will decrease citizen mobility and increase the amount of leisure time available. This will require provision of more outdoor recreation opportunities closer to population centers. This may well be the greatest opportunity of the decade for program outdoor recreation agencies...

* Energy conservation - a conservation ethic on energy utilization must become a primary goal of society...drastic reversals in life styles and the economy are indicated...public policies and programs must lead the way...

It is quite clear that because of the energy shortage, we will continue to enjoy leisure time, perhaps increased leisure time. The key question, then, is not 'can we' recreate, but rather 'how' can we recreate given the current energy situation.

At least part of the answer lies in close-to-home recreation facilities, facilities which afford direct personal outdoor fulfillment while contributing to the conservation of energy.

Our manpower and our dollars -- both in government and the private sector -- must now be directed toward providing close-in facilities such as the camping areas and hiking trails that Americans have traditionally driven hours to enjoy.

Within the Department of the Interior, we are taking a number of steps to encourage fuel-conserving recreation programs. The Nationwide Outdoor Recreation Plan holds great potential for better close-to-home use of the Land and Water Conservation Fund, the principal source of federal financial aid for outdoor recreation enhancement.

We are also considering energy-related actions which would:

- * Give priority Land and Water Conservation Funding to acquire land along public transportation corridors, within walking distance of primary user groups, and accessible by non-motorized vehicles and public transit;

- * Focus Land and Water Conservation Fund monies on acquisition or establish a definite ratio favoring acquisition over development;
- * Gear development funds to projects which provide low energy-consumptive recreation activities, such as bicycling and hiking, and encourage urban-oriented day use projects, such as tennis courts, swimming pools, playgrounds and ballfields.

The National Trails Program, administered largely by the Department of the Interior, encourages development of energy-conserving hiking and bike trails near urban areas. Today, there are 46 National Recreation Trails located in 22 states and the District of Columbia providing close-to-home outdoor recreation for thousands of Americans.

Within Interior's Bureau of Outdoor Recreation, where the trail studies are coordinated, we are working to encourage innovative, low-cost trail development. Of particular interest to us is the new Regional Rail Reorganization Act, which could result in the abandonment of valuable eastern railroad rights-of-way. And I hasten to add that the bureau is not advocating the abandonment of any line. We are, however, looking at existing rights-of-way to see which lines should be maintained, especially those that impact on recreation areas. We are also taking a look at those lines which, should they be abandoned, have recreation potential. We look forward to working with other federal agencies and states to encourage trail development should these pathways no longer be needed for rail transit.

We are working closely with leaders of recreation industries to encourage the availability and support of mass transportation systems to and within parklands so that the use of private automobiles and resultant fuel consumption is reduced.

In short, we in the Department of the Interior are working with the recreation community as a whole -- the users, planners and providers -- to meet America's demand for recreation while above all contributing to conservation of the nation's fuel supplies.

Last week, BOR Director Jim Watt spoke at the Annual Meeting of the Motorcycle Industry Council. He told them that, "The energy shortage will begin to look for recreation more like an opportunity and less like a problem as industries, governments, and recreationists cooperate in development of more energy-efficient equipment, programs and close-to-home leisure areas."

"Every problem creates an opportunity," said Mr. Watt, "and the energy shortage is no exception...indications are that most outdoor recreation activities now on the scene will survive the shortage and that many new ones geared toward close-to-home recreation will emerge. The American people will continue to have the time, money, and inclination for outdoor activity, and the industries that can capitalize on the new energy emphasis with the right facilities and hardware will grow and prosper."

Discussion

Question:

You say close-to-home recreational activities - would you put that in miles?

Response:

Past research indicates most recreation is done after hours - after work or after school - or on weekends, so it would probably be 200 miles or less.

Question:

There was an article in the NCOA news last month that said RBI and BOR were talking of more public outdoor recreation facilities within population centers. Does this mean that the public center is going to start developing more recreation areas within these areas, and if so, what effect might this have on the private centers?

Response:

Yes, this is probably going to be true. There will be more development close to population centers because this is where the people are. Given this situation, we've got to provide these facilities for the people much closer to where they are. As I indicated in my remarks, people, for example, going camping were used to driving 150 to 200 miles or more. If the energy situation continues for a period of time in the same vein that it has up to now, they are going to think twice about using the gasoline to travel that far to camp, which means we have to provide facilities close to where people are. Now as to whether public or private agencies will provide those facilities, I would hate to guess. The current funding level - Land and Water Conservation Fund for this next fiscal year will be \$300 million. About 60% is allocated to the state to distribute, another 40% is retained by Federal agencies such as the Park Service and the Forest Service to acquire only additional trailer land for outdoor recreation opportunities. Frankly, I think there is enough room in there for everyone to provide these kinds of services.

CLOSING DISCUSSION

Chairman William S. Walters
Regional Marine Specialist, Sea Grant Advisory Service

Bill Walters:

In this last 45 minutes we would like to discuss some of the points that have come up during the conference. It has become quite apparent that marina operators do have some business problems so we'd like to know how Sea Grant can work with you over the coming year. We have offices in Ithaca (contact: Bruce Wilkins), Brockport (contact: Roger Allbee), Oswego (contact: Dale Baker), and me at Stony Brook. We hope to open a Fredonia office in June. The addresses and phone numbers of the offices are on "Coastlines", our newsletter. You can contact any of these addresses for assistance and information.

One thing that was brought up toward the end of the session was the energy situation. I can give you a little insight into what's been happening to the marina industry on Long Island. They are getting about the same level of supplies as the gas stations in the area; varying between 80 and 90% of their historic consumption. It depends on which gas company is your supplier. There are procedures to apply for assistance if you think you are having a problem with your supplier. You can contact the Agricultural Stabilization Conservation Service and they will give you a referral and forms to fill out to apply. These forms do work, but they take time and redress is available to you. Again, you could contact our offices and we can help you get started in this. I don't know what the price situation is going to be.

Question:

I have one question on this. We have all these forms and permits to fill out for emergency use. A big two or three page letter stated, up to last Sunday that we couldn't operate on Sunday, we still had to operate on an odd/even basis. Does that affect boats?

Response (Bill):

I haven't run across that so I can't give you an answer. I would anticipate that is going to have to be dropped with regards to recreation.

There are two situations covered by special procedures. One there is an emergency supply available for legitimate emergencies through a state source. Second, if you feel you are not getting your fair share from your supplier, there is a procedure to apply on federal forms to have him increase it. If he refuses you submit your complaint right to the federal agency, or contact us and we can tell you where to get the forms and who to call.

Your best solution at home is to stay with your suppliers. This is not a time to jump around. People who have changed are the ones who have had difficulties.

I think Sea Grant can help you in the marina industry by providing you with information. We hope we can keep you posted on pertinent legislation. We'll probably do this through our newsletter, "Coastlines".

Bruce Wilkins :

How are you currently receiving this type of information?

Response (operator):

I read the legislative section of Boating Magazine.

Response (operator):

There is a mechanism by which any marina operator can get the federal registered materials that apply to him. I can't say specifically, but it is something we subscribe to.

Question (Wilkins):

Could you trace this down and let us know what it is?

Response:

Sure.

Bill Walters:

We would be interested in your reaction to the structuring as well as the content of the meeting.

Response (operator):

I think it would be a big help if you had a representative of the Coast Guard at these meetings.

Bill Walters:

We have held meetings on Long Island for the industry group down there and they have participated. I think they were contacted on this meeting. I'm not sure why they were not here.

Comment (operator):

Since boat registration has been transferred to the Department of Motor Vehicles, they have printed a new instruction sheet telling how to obtain a boat license in New York State. It says, effective the first of July, 1974 any boat under 26 feet that is rented will not have to carry the boat license aboard the boat. I'd like to know how they are ever going to make a thing like that stick.

Response (operator):

May I answer that? There was a Coast Guard meeting in Syracuse on the 27th of February and they went into this in detail. There is a form that you have the person sign when they go out in the boat and it takes the place of the registration. You are right, you do not have to have it in the boat.

Response (operator):

The regulation doesn't specify whether you rented it from a friend or someone else.

Response (operator):

I think the reason for the regulation is to protect people in case something happens. For example, if a boat renter signs an agreement that he will have that boat back before dark, because the boat has no lights, and the Coast Guard picks the person up for driving the boat in the dark, the renters must take the blame, not the boat owner.

Bill Walters:

Are there any other general discussion items? Ivan Vamos is here to answer any questions you have.

Response (operator):

I think, in a program like this, it is better to include subjects that cover the whole industry rather than local problems. The liability presentation was very good because it pertained to everyone of us.

Response (operator):

One of our biggest problems is the state licensing system. I don't know how this is going to work now, but for the last few years they've permitted a boat dealer to buy "instant licenses" through Albany, put them on a brand new boat and give the customer a temporary certificate for 60 days. This couldn't be done with used boats. In that case a dealer either broke the law or went through a lot of trouble to get a license number transferred. A year or two ago it wasn't a matter of weeks, it was a matter of months before those licenses were coming back because they moved the Albany Office so often.

Ivan Vamos:

We have moved 5 times in the past six years.

Bill Walters:

Since the Department of Motor Vehicles will handle licensing from now on, don't you think it will go as smoothly as car registration?

Ivan Vamos:

It was moved because Motor Vehicles did have the machine capability to do this registering process quicker and better than we could. Hopefully, registration will move more quickly.

Question (operator):

Is there anybody here, or their customers, who is having problems with the sales tax office? Some of our customers who purchased equipment three years ago are being asked by Albany whether they paid sales tax. This is bad for us because the customers get the wrong idea - that we have pocketed the money rather than sending it to the state.

Response (Wilkins):

Are these the sorts of concerns and problems that the trade associations can work out? I gather there's no statewide tie between marina operators, but is there any way your voice speaks to Albany in the way Neil was talking about this morning?

Response (Operator):

Marina operators in central New York, meet monthly in Syracuse. As I understand it, we have just increased the types of membership available. Our director will send information about the types of membership available to people in any phase of the marine business. We want more numbers so when we have a legislative problem we can speak to Albany with numbers behind us.

Response (Ivan Vamos):

In many regions you have a very strong marine industry; regions much larger than all of Rhode Island. You have some local assemblymen and local state senators in these areas who are very concerned with your industry and it probably would be helpful for you to work with those particular individuals because you could accomplish much that way, while a representative in Albany without this local groundwork will not do very well.

Bill Walters:

Can we get both upstate and downstate operators to meet together? We do have two recently evolved trade associations on the Island, each with about 40 member firms. One is at the far end of the island, one is in the Freeport area. We also do have a New York Marine Trade Association which is a bi-state, including New Jersey, New York and several members from Connecticut. But that tends to be more at the manufacturer level.

Bruce Wilkins:

How many groups are there in the state?

Response (operator):

I know about one in the Western area, one in Rochester and one in the Central area. Central also covers the St. Lawrence region.

Bill Walters:

I think a good way to start forming a strong statewide group would be to identify all the associations we can. Sea Grant could coordinate this, then we could try to find a way to exchange information and coordinate activities.

Bruce Wilkins:

Do you think it would be possible for a couple of people from the Central and Western groups to set up a meeting with the people in Rochester?

Response (operator):

Yes, I think we should set up a line of communication between the offices so if we have a problem we could get together.

Bruce Wilkins:

It might also be useful for the various groups to state their most pressing problems before such a meeting as this so these could be touched upon and incorporated into such a conference; i.e. getting representatives who are knowledgeable about the problem from those organizations.

Sometimes when groups like this exist, there are a number of people who, for a variety of reasons, do not wish to belong. Is this a substantial problem here, or is it a problem primarily of people not being aware of them?

Response (operator):

I think marina organizations have been limited in their membership because they have included mainly boat show operations. But now many are branching out to include all the related industries.

Bill Walters:

It's getting to the time where we should adjourn.

We appreciate all of you coming to the program. We hope it has been useful to you and we hope that our future involvement will be more so.

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March 28-29 1974

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This conference was held in conjunction with the Annual Campground Management Conference. Copies of the Proceedings from the Campground portion are available for \$2.00 from:

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