

A Survey:  
Perceptions of Local Government Officials of  
Problems, Management Controls, and Future Plans for  
Their Local Watersheds

Compiled by the  
Alaska Department of Environmental Conservation  
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## INTRODUCTION

This paper is one of several documents to be issued by the Department of Environmental Conservation (ADEC), once the agency determines the characteristics of municipal watersheds, how many Alaska communities are faced with development problems and which conditions should be included in a long-term monitoring program. The Department will pursue these issues over the next few months in various ways, specifically through an inventory of public water supply watersheds, their characteristics and boundaries throughout the state. By late spring of 1981, the Department will issue a handbook for local communities on ways to manage watersheds in order to maintain drinking water quality while possibly allowing other uses.

## SURVEY: AN OVERVIEW

In September, 1979, the Department of Environmental Conservation solicited information on public water supply watersheds from 25 communities across the state. A copy of the questionnaire with a list of communities solicited is contained in Appendix A. Eleven communities--Sitka, Juneau, Skagway, Ketchikan, Petersburg, Unalakleet, Unalaska, Sand Point, Seward, Cordova, and Kodiak--responded to the request or were contacted in person. Ketchikan did not respond to the questionnaire; the Planning Director sent material far more comprehensive than the questionnaire on Ketchikan watersheds compiled by a local hazards and watersheds task force. Juneau enclosed its "Last Chance Basin Land Management Plan" adopted in August, 1978 as part of the Comprehensive Plan of the City and Borough of Juneau.

Because of the subjective nature of the questionnaire, it is impossible to collate the responses in terms of numerical analysis. However, the intent of the original authors was more to gauge the perceptions city officials had toward their own watershed conditions, problems, and possible future plans than to produce a statistical analysis. Therefore, this evaluation will simply be a narrative summary in anticipation of a more comprehensive problem assessment of public water supply watersheds around Alaska. During the problem assessment, watersheds will be inventoried, their boundaries and current problems field checked, and the findings analyzed. From this information, the Department will determine if there is a need for a continuing program of support and technical assistance in watershed protection.

It should be noted that the term "watershed" was undefined, either by this Department or by the respondent in the survey. It appears as though most respondents considered areas only above and away from an undefined urban boundary as "watershed." For example, Juneau refers to the Last Chance Basin as the watershed and excludes the urban area through which Gold Creek passes. In fact, it could be argued that the entire drainage from the Upper Basin to the outlet in Gastineau Channel is the watershed. The relevance to this is particularly important in

question 4 since many activities allowable in the lower reaches of a watershed are not allowed at all in the upper reaches. However, how these different uses relate is at least as important as general water quality, even though the municipal "take-point" is well above the last row of houses.

## SURVEY: RESULTS

### 1. Land Ownership

Land ownership patterns varied more by percentages rather than types of ownership. Six cities owned at least some land in their watersheds. The State owns lands in five watersheds; the federal government in five. Of the five watersheds with private ownership, three are in the hands of local Native corporations.

In only two cases--Juneau and Kodiak--is the city contemplating selection of some of the lands. In several others, however, the local Native corporation is reconveying native lands to the community according to the terms of the Alaska Native Claims Settlement Act. Finally, the Kodiak Island Borough would like federal lands along Monashka Creek chosen by the State for transfer to the Borough.

### 2. Problems in Watershed Protection

The second question is somewhat open to interpretation as "problems" can refer to legal, natural, or economic hindrances to watershed protection. Five respondents answered that they have and foresee no problems. One respondent had not completed its analysis to be able to answer the question. Another community mentioned impacts to the watershed--urban growth, recreation, and hunting; another considered effects of natural or human-made changes--severe blowdown and subsequent erosion as problems.

### 3. Land Use Controls

One community relies on a watershed ordinance specifying uses permitted or prohibited in designated watershed zones. Two others at the time of the questionnaire had recently completed draft land use or comprehensive plans with sections devoted to water supply protection. The final outcome of the plans are not known. Four communities zone land as watersheds, two rely on watershed classification of State lands, and one has requested watershed classification for State lands in its watershed.

### 4. Current Land Uses

Land uses span the gamut of human activities from hydroelectric power to dispersed recreation. Residential and some commercial activities occur in four watersheds, with associated roads and, in many cases, on-site sewage systems. A surface reservoir, aquaculture, rock excavation, and small-scale logging occur in several Ketchikan drainages.

#### 5.a. Permissible Activities

The most common allowable activities on watershed lands are recreational--skiing, hunting, fishing, and hiking. However, residential use is very common, particularly closer to the mouth of the stream or creek. Each activity is allowed by ordinance or zoning in only two cases. In other cases, aquaculture, hydroelectric power, and dams are also allowed, but not specifically because of a local legal document.

While Petersburg and Unalakleet responded that no activities at this time are permissible in the watershed area, it is hard to know whether the respondent meant that no activities are allowed by legal action or that no activities are being regulated. The Kodiak Island Borough prohibits agriculture, residential, commercial, industrial and other urban uses; any use or structure that is incompatible with the preservation and protection of potable water reserves within the district or which would have potential for contaminating or polluting the water reserves; and any other use not specifically permitted (includes water reservoirs and dams, water treatment plants, water pumping stations, water transmission lines, snow and water gauging stations, high voltage transmission lines, communication lines, and other customary uses and buildings accessory to the principal uses enumerated above, including but not limited to electric distribution lines and access roads).

The mayor of the City of Kodiak stated, "Although we prohibit trespassing, the public still trespasses." Apparently, this is a common situation; Sitka, too, stated "No Legal MVs," referring apparently to motor vehicles such as motorcycles and snow machines.

#### 5.b. Future Uses

Most communities responded that no future uses have been proposed. Several recommendations in the Juneau Land Management Plan for the Last Chance Basin indicate the direction that community is taking to "establish watershed protection as its principal objective." "Commercialization of the basin in such a manner as would substantially increase traffic volumes would not be in the public interest" and "public use district (P) zoning is recommended to be applied to the area." More specific recommendations are included in the Plan for those interested.

Other possible future uses include a camping site adjacent to the Petersburg dam and more hydropower development in Ketchikan.

Both urban and rural growth is occurring in many communities around the State and some of the resulting problems, in particular, the State land disposal program and on-site waste disposal, being faced elsewhere were mentioned in these questionnaires. The State need not abide by city-approved subdivision ordinances and therefore need not provide water and sewer improvements nor construct roads. Unfortunately, local governments have absolutely no legal recourse to the State's decision to locate subdivisions in areas clearly incompatible for such use.

Most new homes on the edges of communities rely on sewage systems that can handle the wastes on the immediate property. However, frequently the soils are limited in the kinds of wastes that can be successfully filtered and land and water contamination occurs because of overloading, inadequate soil capability and poor maintenance.

Sand Point's problem is that the most logical place for community growth is within the watershed. In this case, the question is less whether such development should occur than how to assure that the watershed is protected while yet accomodating the varied uses from residential development.

#### 6. Comprehensive Plans

Four communities have comprehensive or other land use plans, but only two specifically address watersheds or water sources. Three communities were writing their plans at the time they answered the questionnaire; the current status is unknown.

APPENDIX II

# STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

JAY S. HAMMOND, GOVERNOR

POUCH 0 - JUNEAU 99811

September 28, 1979

Dear

As urbanization, subdivision and industrialization activities increase, many communities throughout the State have become concerned about the future of their public water supply watersheds. The Department of Environmental Conservation, with the cooperation of the Department of Community and Regional Affairs and the Department of Natural Resources, has begun a project which will examine existing measures taken by local governments to protect public water supply watersheds. We are particularly looking at those local governments which have one or more surface water sources, including streams, lakes or reservoirs, and infiltration gullies. As a later phase in this project, we will be reviewing a range of possible management controls which might be effective in protecting the quality of water in watersheds and thereby minimizing future needs for costly treatment facilities.

This Department's records indicate that your community uses one or more surface sources for public drinking water. We would very much appreciate your cooperation in this project by answering the questionnaire attached to this letter.

Please return this form by October 30th. Your assistance is appreciated.

Sincerely,

*Margo W. Waring*

Margo W. Waring  
Planner IV

cc: V. Chitwood, Alaska Municipal League  
ADEC, RO  
V. Clark, DCRA

Public Water Supply Watersheds  
Surface Sources

City \_\_\_\_\_

Contact: \_\_\_\_\_

1. Who owns your watershed land(s) or the land surrounding your water source(s)? Is the city considering selecting any of these lands?
2. What problems do you now have or anticipate having in the near future in protecting your watershed(s) or water source(s)?
3. What zoning or other land use controls are now in effect in your watershed(s) or the area surrounding your water source(s)?  
A map might be helpful.
4. What activities are currently being conducted in your watershed(s) or on the lands surrounding your water source(s)?
5. What activities are permissible in your watershed(s) or on the land surrounding your water source(s)?

Are the activities defined by ordinance? Other means?  
Please specify and include a copy, if possible.

Have any future uses been proposed? Please specify.

6. Does your community have a comprehensive plan or other land use plan which addresses future uses in your watershed(s) or the lands surrounding your water source(s)?

7. If at all possible it would be of great help to us if you would attach a map showing the relationship of your "take point(s)" to the drainage(s). If there is no official map, a sketch would be helpful.



## APPENDIX B

### COMMUNITIES TO WHICH QUESTIONNAIRE WAS SENT

- |               |                |
|---------------|----------------|
| 1. Anchorage  | 14. Kotzebue   |
| 2. Angoon     | 15. Metlakatla |
| 3. Barrow     | 16. Nome       |
| 4. Cordova    | 17. Petersburg |
| 5. Craig      | 18. Sand Point |
| 6. Ft. Yukon  | 19. Seldovia   |
| 7. Haines     | 20. Seward     |
| 8. Homer      | 21. Skagway    |
| 9. Hoonah     | 22. Sitka      |
| 10. Juneau    | 23. Unalakleet |
| 11. Kake      | 24. Unalaska   |
| 12. Ketchikan | 25. Wrangel    |
| 13. Kodiak    |                |