

MINUTES OF THE MEETING  
FINANCE AND CLAIMS COMMITTEE  
MONTANA STATE SENATEAUG 10 1979  
OF MONTANA  
April 6, 1979

The thirty-second meeting of the Senate Finance and Claims Committee met on the above date in Room 108 of the State Capitol Building. Following roll call, the meeting was called to order at 8:10 a.m. by Senator Himsel, Chairman.

ROLL CALL: All members present with the exception of Senator Thiessen.

CONSIDERATION OF HOUSE BILL 919: Rep. Burnett explained the bill as a tumor registry for cancer. He said that Dr. Bennett, Representative in the House would explain the bill and the need for it.

Rep. Dr. Bennett: We thought the tumor registry should be sponsored by the cigarette sales tax. A lot is caused otherwise, but also a lot by cigarette smoking. They rewrote the bill and said the money should come from the general fund since it involved all the people and not just a few. He said this would be about \$60,000 for tumor registry and there would be about 2,000 cases of cancer next year; around 1300 people will die, and a lot will probably never report; only the ones that die will be sure to be reported. He said a former study had been before on donations; that was no longer available, and he felt it was necessary not only for follow-up treatment but to correlate the tumor cases to the environment, work areas, etc., to see if there is some relation between the prevalence of cancer in an area and the high rate of a certain type of tumor for a certain area. He said there is an unusual number of malignant melanoma cancer in Flathead Valley. They do not have that much sunshine so they would like to know why. They would also like to check with industry. There are carcinogens in hydrocarbons. They would like to know where they are, what they are and how long an exposure causes trouble, and how much influence a previous living or working area could contribute. In certain areas there is more cancer of the lung, bladder, etc., than in others. The tumor registry would follow the history from the time it was diagnosed until the person died. He said a doctor will get busy and forget to call a patient, and this would take care of that follow-up.

Rep. Reichert spoke in support of the bill. She said we are the only state in the Northwest that does not have such a registry. She said Califano states probably as high as 80% of the malignant tumors are due to environment, and this gives a chance to try to locate the types and places. (She read a letter.)

Senator Dr. Norman spoke in favor of House Bill 919. He said for years the doctors have been noticing, and hearing of high incidents of cancer in certain families; houses get known as "cancer houses", etc. Chimney sweeps had a very high rate of cancer, sometimes people in the same family will have the same kind, and so the study goes on, but needs coordination. He did not feel this would cure cancer, but would help to make our contribution. He said if the bill were to pass there might be a little difficulty in implied consent in taking the patients medical records. Do they have to sign a release? If the person from the Health Department should be here you might ask him. You might get the program to appropriate to the Health Department for them to make some sort of contractual arrangements as to where the

money will go. I am sure they would have some of these answers.

Rep. Polly Holmes, District 67 said she felt the registry is very essential to our services. In some states it is required by law. Cancer is frightening and sometimes people run away from contacts with the medical profession. This gives a doctor the chance to know if his treatment is being continued. etc. If he moves it will follow him.

Rick Crankshaw, Public Health, talked of the implied and informed consent. He said the National Immunization Program is already being handled. He said a definite emphasis was made to inform the recipient of the risk there would not be any problem.

There were no further proponents and no opponents. Questions from the committee as follows:

Senator Lockrem: With something of this nature and \$60,000 in a \$35 million budget, it seems to me that this is a responsibility of the Department and we shouldn't be nickled and dimed to death for them to do their job.

Mr. Crankshaw: If the preventative health program is going to help them, they would still need it in their budget.

Janice Condors, Montana Foundation of Physicians and Doctors said that up to this time they had been running this program out of private donations.

John Bartlett, State Board of Health, said he was in support of the bill. For the past three years the foundation has been doing the work by scrounging up funds. Therefore, we instituted this bill. The Department of Health feels it is very important to the health of the people in Montana. We could not run it for this amount of money. My own feeling is that this \$60,000 would be used for a contract with the foundation to have them do the work. Prior to this time the Department of Health was not aware of the need for this.

Senator Lockrem: If it stayed "in-house" as opposed to contract work, what would be the cost?

Janice Condors: It necessitates working in every hospital and clinic, and they do the work. We have people set up to do the work and to extract the information.

John Bartlett: It would probably be cheaper to contract services because of the set-up that is already there.

Senator Lockrem: How do you get around the implied consent? Do the hospitals and physicians know about it?

Janice Condors: Yes, the hospitals and doctors know about it.

Senator Lockrem: Then the patient has nothing to say about it?

Janice Condors: Their doctors know about it.

Senator Regan: I would like to address this to Rep. Reichert - you read a letter from a doctor. This doctor supported the tumor registry, and mentioned the dietary problems on carcinogens. Which doctor was it? Rep. Holmes: Dr. Neil Thomas from Great Falls.

Senator Story: We will come back next time and I expect it will be reviewed by the subcommittee then. Last time so much of the funds went up in administrative costs at Boulder. I would hope that if this bill would pass it would see that the money goes to the function intended.

Rep. Dr. Bennett closed by saying he would comment on the confidentiality in regard to the bill. Some states say that cancer is a reportable disease and they have no problem with confidentiality. In Montana, we fail to get by with it. Many people have cancer are never in a hospital. I have treated a great number of people who never see a hospital and probably never will. I am sure there is a great deal more cancer than that which is reported. The cases in the hospital are the more serious ones. Cancer of the brain, uterus, and lung. We need a field coordinator and one other salary position. The total for the two, plus the indirect costs, would total about \$26,000.

The hearing on House Bill 919 was closed.

CONSIDERATION OF HOUSE BILL 773: Rep. Seifert, Polson, District 26, said this bill would create a pilot program for marina operators to install facilities for the proper disposal of human wastes from boat holding tanks and would make an appropriation to handle the work. He said he had been asked to sponsor this bill as a result of the request of many people in northwestern Montana. In 1973 there was a bill that said all boats had to have closed holding tanks. There is no place to dispose of this waste. On Flathead Lake there is one person policing the whole lake as to human waste from all the boats. They are now having trouble maintaining what they have. This would create an appropriation of \$8,750 from the resource indemnity trust fund interest, and put it with matching funds from the free enterprise system. Then free enterprise could put the systems in and make it available to the public and then maybe we could police the action. We have the people required to do this. There is a statement of intent with this bill.

Ron Holiday, Administrator Parks Division, said they have had complaints. They have no idea the size it may be and no pumping facilities on Flathead Lake at all. We are hoping this would start small and let private enterprise do it so that we are not in competition with the private marinas. This is needed to handle the county sanitation problems there.

There were no further proponents, no opponents, and questions from the committee followed:

Senator Aklestad: Did you go to the fish and game with this bill? They are pretty directly involved with it.

Rep. Seifert: No, I did not go to them. I went to the Parks Division and visited with them. They purchased Wild Horse Island,

There are more state parks on Flathead Lake than any other body of water in the state. There are no facilities at many of the state parks. It was my feeling this should be developed through private enterprise; the parks division is having trouble with their waste disposal at the present time.

Senator Aklestad: If they are having trouble, why didn't they initiate the action? Why can't fish and game provide this anyway?

Rep. Seifert: I am sure private enterprise can take care of it in a more economical way than getting the fish and game involved in taking care of the waste in the state parks. If the facilities are there, then the people will have to use it. There are 6 large marinas. I am trying to have it taken care of through existing ones so that we don't have to have new ones through the fish and game.

Senator Smith: The fish and game will have all the rule-making authority. This type of thing was first adopted in Business and Industry. The first few months in fish and game we looked at this type of thing. If this had been brought to us in the subcommittee it would have been taken care of without a separate donation. There is a certain amount of funds to upkeep a certain amount of sites. Is this the same area where fish and game are gathering their funds now, or is this a different one?

Rep. Seifert: They may be getting some funds from this.

Ron Holiday: No. This is resource and indemnity funds. We thought it could be better done by private enterprise. All the boats are going to the private marinas to get gas and this type of service could be quickly set up there.

Senator Aklestad: How many Marina owners across Montana that have facilities that fill up gas, etc.?

Rep. Seifert: Approximately 8 large ones on Flathead Lake with 5 or 6 waste stations. If the facility is available, the people would have to conform to the laws.

Senator Smith: What bothers me is that after the subcommittees work and review budgets, we get a whole package of these bills. The agencies should bring them into the subcommittee. It looks like a way for the Department to get additional money out of the legislature to me. I realize there is a need for this, but I feel it should have gone through the proper channels.

Rep. Seifert: I did not approach the fish and game. I asked the Parks Division. They did not have the money and so I approached it from this direction.

Senator Aklestad: This is just front end money to get this started? What is the 50% ratio?

Rep. Seifert: About \$1500 a station. Flathead Lake is one of the only bodies of water controlled by the Corps of Engineers. They have

let notice there will be no further construction unless the permit applicant has a place to dispose of waste. They have no authority to force existing marina operators to install any, but no new ones without it.

Senator Aklestad: How many are registered in Montana that have such holding tanks? Rep. Seifert: I do not have the answer to that question.

Senator Story: The motor boat people get a percentage of the gas tax money for this type of thing. Can't they come up with the money? They get about \$450,000 a biennium.

Rep. Seifert: The Parks Division does not have the people to police the stations. If the facilities were there it could be enforced.

Senator Story: This gas tax money is supposed to go into the marinas for this type of thing. You should have a visit with them and ask them why not.

Ron Holiday: There is no question as to putting them in. After they are in, they have to be maintained. We felt it was a better idea to have private enterprise responsible for this. It is a 50% reimbursable program. We would make sure it has been done and then get it back.

Senator Story: You did not answer my question. Why can't the money come out of the earmarked gas tax funds instead of a new chunk?

Ron Holiday: That is entirely possible. It is a legislative prerogative.

Senator Himsl: You don't care where the money comes from? This particular fund is being had at from all directions. Probably it is already in the park service; there is money set up for this job.

Ron Holiday: It is a reasonable use of the money. We have problems with the operations. If they want to reduce operations and use it there, that is your prerogative.

Rep. Seifert said in closing that our State Parks are not being taken care of now. Flathead Lake has a lot of problems. They are having trouble maintaining what they have there, and I don't feel this is a heavy appropriation. We might pay to get the job done this way.

The hearing on House Bill 773 was closed.

CONSIDERATION OF HOUSE BILL 356: Rep. Ellis said he had introduced this bill as a request from the Department of Fish and Game. It addresses the problem of warden retirement funding to eliminate the unfunded liability in the Warden Retirement Program. It will cost about \$3 1/2 million.

Larry Nachtsheim, Administrator, Public Employees' Division, said he would pass out written testimony. He said the unfunded liability will

will continue to grow if something isn't done about it. Testimony attached.

Senator Hims1: How are we meeting this? The result in the fish and game was simply to take the money from the fines and apply them to the retirement fund.

Mr. Nachtsheim: This would take the residual at approximately about \$93,000 a year. There is about \$145,000 in a fiscal year in fine money collected. Of this, \$52,000 was placed into the game wardens' retirement account - 4% of the game wardens' salaries would leave \$93,000 in fine money that would be put into the retirement system. This would fund in 4 years, the unfunded liability. All of the fine money would move into the retirement system.

Mel Wojcic, President Montana Game Warden Association, said he would like to go on record as in support of the bill.

There were no further proponents, no opponents, and questions from the committee follow:

Senator Aklestad: You don't mean to say that the more fines you get the more money would go into this fund? Answer: Yes.

Senator Aklestad: It would be a self-perpetuating possibility to go out and collect more fines?

Terry Cannon, Administrator of the Law Division of Fish and Game, said there would be no incentive to be overzealous. The Department is responsible for the funding of it now and this part would not change.

Senator Smith: There is supposed to be a certain amount of money collected now. Are the counties collecting it now?

Mr. Cannon: 7.50 from each county, the remainder to the state treasury and is deposited to the Fish and Game.

Senator Smith: How many are retired and collect retirement and are now again employed by the fish and game and again on their payroll?

Mr. Nachtsheim: There was some exploiting of PERS in 1975 or so. The rates for funding the retirement benefits were adequate for normal costs, but did not take care of the move from 1 1/2 to 2% in the system. That has never been resolved. Last session the action did keep it from going backwards.

Senator Story: At the time they switched over, they should have increased the contribution from the game wardens and didn't do it?

Mr. Nachtsheim: They only moved the member money, not the employee money. The liability moved but the employer contribution started in the PERS system.

Senator Thomas: How are the monies expended from the revolving funds?

Mr. Cannon: They go into earmarked revenue and are used for operations.

Senator Thomas: You will have to ask for money to put it separate to put back this money you are taking out? It was placed in the budget request for this year.

Senator Lockrem: 11% employer, 7% employee, and the act we have will pick up 9% - that makes it 20-7. What is the PERS ratio?

Answer: 6% employee, 6.2% employer. Senator Lockrem: Teachers?

Answer: 6.8% employee, 6.27% employer. Senator Lockrem: Are there any others that are funded on a 20%-7% basis? Answer: Municipal police - they are almost 30% employer and 6 1/2% employee.

Senator Lockrem: Is it actuarially sound? Mr. Nachtsheim: It should be funded for over 40 years.

Senator Lockrem: Would the act consider increasing the employee?

Mr. Nachtsheim: No. You can't change the rate for the current employee; only the future employees. You could increase it for future game wardens, but the Supreme Court says the present ones have been promised this and they own that benefit.

Senator Regan: Are there any other retirement funds that are in trouble? Mr. Nachtsheim: The Highway Patrol.

Senator Himsl: On page 2, line 7. They struck "fines" and left it with damages. Is there a reason for that? Was this struck because of the bill possibly having something to do with the damages that a landowner might have? Is this why a change in this?

Mr. Cannon: I don't have an answer for that. The language is inserted and that gives you a look at the use of fine monies.

Senator Himsl: Do you collect damages?

Senator Smith: This was in the House bill this legislature, it was debated in the Senate retaining strictly damages.

Senator Himsl: They struck the word "fines" so I assume that they would collect damages. I am trying to find out what it was.

Rep. Ellis: This will not increase any benefits for the wardens in how general funds are increased - the state contributions will be about 8.9%.

Senator Regan: What is the number of the House Bill that calls for consolidation? Answer: House Bill 357.

Senator Story: In the case of both Highway Patrol and the J.P.'s we decided that tying fines to either salary or benefit or retirement would make them more officious. The fish and game has a bit of a public problem. In my county is not good. It will not help the situation if the game wardens start going out of their way in picky type violations.

Rep. Ellis: This is just taking the 4% out of the statute and putting the whole bag in. When Larry does resolve this and comes up with a consolidation we can take the fines out and come up with just earmarked funds.

The hearing on House Bill 356 was closed.

CONSIDERATION OF HOUSE BILL 349: Rep. Lein, District 49, carried the bill for Rep. Johnson. It approves and ratifies an interstate compact for grain marketing. It would allow Montana to join with other states in forming a commission that will be more or less instructed to investigate grain markets. We are opposed to running to the government to get information; this would allow us an opportunity to give ourselves some self-help. The \$50,000 will not go in until the compact is funded. Whatever funding avenue is chose, is in the future. We would like to have the machinery set up so that we can get this up. It seems to be a pretty good chance of 5 states at least ratifying it this legislature.

Jack Gunderson, former legislator, said he was in favor of the bill and gave a letter he had written to the sponsor along with some clippings as part of his testimony. Sharon Peterson, Women Involved in Farm Economic Problems (WIFE) said they saw the grain compact in some of these areas as helping to solve some of the problems.

Elroy Letcher, Montana Council of Cooperatives, executive secretary, said this is legislation that a majority of the grain producers would support. He said they have not conducted any surveys in Montana, but in Colorado the returns showed 79% in favor; in one state there were 83% of those reporting in favor. We have had very little knowledge or facts to base our action. He said the big six have been controlling the markets and now are able apparently to control the transportation of our grain. He gave the figures on the amount of grain handled and controlled by the big six. He said they own barges, elevators, railroads. He told what countries they sold grain from and what countries they sold to, and the problems of trying to obtain a piece of the market that they held.

Brad Shaeffer, Farm Families and Farmers Union, said he was in support of the bill and would urge its passage. He said there were identical bills introduced in many states. Five states still might ratify them. Stabilization of prices, which is the goal of the compact, would stop the manipulation of the prices by the large monopolies.

There were no further proponents, and R.F. Dennison, Montana Grain Elevator Association spoke in opposition to the bill. He said the Montana Grain Growers gave a news release that they will support the bill. He said he was here as an opponent, not because they were trying to cover anything up, but the policy set down by the government will move the control of many of things that are going on. Some of these things have been investigated and things have already been done about them. This would be just another bureaucratic commission. It could cause witch hunts in the grain industry. The less government you have involved the better we will be. He went on to say that the



power to issue subpoenas was granting too much power to the compact, and he felt the anti-trust laws and the court decisions and the power of the U.S. Government made it unnecessary to have this type of power in the hands of those who could abuse it.

There were no further opponents, and questions from the committee follow:

Senator Aklestad: I noticed on the members on the Board there are no farmers. Rep. Lein: One could be chosen from the legislature. If one was not chosen from the legislature, I would assume the Governor would take that into consideration.

Senator Aklestad: Were the grain growers, etc., approached on this for taking on the authority and in coming up with this instead of asking for funding from the state government? Rep. Lein: There is no authority. This compact will have subpoena power. They need that to find the information they have to have.

Senator Aklestad: Are you asking for additional subpoena power? Rep. Lein: According to the Attorney General just the regular subpoena power.

Senator Aklestad: You are aware that Congress had all the 6 grain compacts in pertaining to their dealing with the Amsterdam, Panamanian governments, etc. Nothing actually came out of this. They just put in a lot of time.

Rep. Lein: Reports of contaminating grain being shipped out, hanging on to the box cars needed to ship grain, etc. These 6 companies are just one aspect of it. I was very much interested in this when we took on the 6 large companies on the cattle. They were wrong and we proved that they were setting the price on meat. This compact would put some pressure on to clean up their act. If their record is clean they don't have anything to worry about.

Senator Aklestad: How many states have already ratified this compact? Rep. Lein: Kansas and Colorado, and 3 more are on the verge.

Senator Aklestad: Only one actually put funding behind their resolution?

Senator Smith: I am very much concerned about this. I agree that maybe the money should be coming out of the general fund because of the impact. If we pass this legislation will we be obligated for the \$50,000?

Rep. Lein: I think there is money in the seed check-off and the wheat commission can fund this. If in fact we can't raise the money elsewhere.

Senator Smith: Going through the testimony of Jack Gunderson - we supported the wheat bill in '67, and this sounds like the testimony we used then- we just increased their department. Isn't the wheat commission doing their job?

Mr. Gunderson: We are trying to get this done without having to go to Washington. None of these get quarantined to the hill. They just jump from one thing to another. We might get some people who will carry this through to the conclusion.

Senator Smith: The five states that possibly will adopt the compact - these states don't have near the problems we have in grain freight rate costs. If North Dakota turns it down and possible South Dakota, they have the same problems we have. Could we be out-voted and would these other states contribute to our problems or would we have been outvoted?

Rep. Lein: The legislature of the states will decide on the problem. But nevertheless, it will be only grain related problems, and grain related states. It would use 1¢ a bushel and that would fund it for 40 years.

Senator Smith: Didn't we just spend \$351,000 for anti-trust?

Rep. Lein: That could be a very good place to act if something comes up in Montana. They are not in a position to go out on this now. If something does turn up in the state they might be able to do something.

Senator Boylan: What about GTA? It looks to me that they could impact this one way or another. It looks like they could call up one of the 6 and say "What price are we paying?"

Elroy Letcher: Co-ops buy most of their grain from the farmers, but sell very little that does not have to go through one of the big six.

Senator Aklestad: You are interested in giving service to the families in the state of Montana. Why are you closing up several of the elevators across the state?

Mr. Letcher: Some of them are too small and the farmers that want that elevator cannot afford to put up the capital so the alternative is to close it.

Senator Himsl: How can you justify a great grain state like North Dakota turning this down?

Rep. Lein: I don't know. Possibly the subpoena power frightened the House. The House here really feared it.

Senator Himsl: When you started using the word subpoena to me it turned on a switch that held up a red flag for me. I thought it was a positive program. This testimony seems to me to be a police force power.

Rep. Lein: It is not meant to be one. Until we prevail in court, they took no action. When it came through the court the Justice Department jumped on the band wagon.

Senator Himsl: Don't we have laws that can protect people against contamination?

Rep. Lein: It would be a necessity of this commission to see that it does enforce the law.

Senator Nelson: We have already got Western Wheat and Great Plains and they have been in the marketing ever since - 15 or 20 years anyway. They have no subpoena power. Several states, the Great Plains are the big ones, are in the marketing. Now I understand Montana is talking about joining the Great Plains. They now want to spend \$75,000 to join the Great Plains, now you want to start another one.

Mr. Gunderson: They are marketing organizations. They don't get into getting box cars, for example. Bundy alone controls 75,000 box cars - the price of grain goes down and the box cars come up.

Senator Nelson: If you think we are going to control someone's line of box cars, we are in trouble. That will be the hardest thing in the world to prove - that they are manipulating the box cars.

Rep. Lein: I will forego my closing statement. I think the committee has all the information.

There was a 10 minute recess and the committee came back for the next bill.

CONSIDERATION OF HOUSE BILL 273: Rep. Azzara said this bill is to complete the Montana air pollution study. He said this was done after the 1977 legislature appropriated money. It will enable the proper completion with what was begun with this initial sum. It covers Missoula and Great Falls. Mutagens in Butte and Anaconda and a lung form in Billings. We have several people here who would like to testify and I will let them speak.

Mike Roach, Department of Health and Environmental Sciences, Air Contro Bureau, said after spending \$1 million he knew the committee would want to know why they were back for more money. He said the first reason is the results were not inactive. The legislature increased the number of cities originally proposed by about 60%. If the results had been negative, we would be done. 200 school children in Butte and Anaconda had cancer causing agents in their urine. We need to go to the cause of it. Several hundred were checked in Great Falls where we found significantly more lung capacity in the children than in those in Missoula which has more pollution. We need further study to see if air pollution is the cause. There is statistical information on how the money should be spent during the next two years. The study was done. We need to do some individual research, and would like to follow this up.

Kit Johnson, Pediatrician, Missoula, said he would like to testify in favor of this bill because he saw the need for more data. He said in Missoula they have some positive findings as well as some negative pustule emission rates; in looking at children's lungs they have a great deal of data in the data processing which is waiting to be completed. They are using techniques others have used. In some cases they have 12 months and in some cases 18 months of data completed since the machinery was put into operation when they started with an area. In some instances they could not find the data in a 2 year period.

It may have been something that happened in one particular year.

Dr. Loren, MSU, said they have been in some parts of this. Some new studies they have been using in Canada for the study of cancer. He said they are seeking additional funding from the National Institute of Health.

Rita Sheehy, member of the Board of Health, said they feel a real need to find out if there is really a correlation between health and air pollution. They used people from all over the state of Montana. They went after it and really explored it. They used equipment and minds in the Department before going out of the area. They made the money go as far as they could.

Steve Foster, Attorney for the Butte, Anaconda Company, said that as a member of Montana industry it is important for them to know what the effects of air is on health. The data basis is necessary in order to build new facilities in the state or to expand existing facilities.

Dr. Knight, Director of the State Department of Health, said this study has really come a long way. The Cancer Society was interested 20 years ago because of the high cancer rate in those areas. Most of the studies done were done against the industry. This is the first overall comprehensive study. It was so well designed that it relates and took in the radiation area there. The work that Dr. Gowan Warren is doing fits in well with this aspect of the area. It will be very interesting to relate this with radioactive study and with the mortality study. For some time we have had no new data on the death rates from cancer. It will be extremely interesting to correlate the variation of the relation in the different areas with the death rates. The death rate in one area is 135% higher than the rest of the state. This never fit in very well with the preconceived ideas in the state in regard to the probable causes. It is a very different type of thing that you don't find in the rest of the state.

Dr. Ben Ferris said there was a man in the community who is a consultant and the last time he was extremely interested in how this study was bringing some of these things out.

Ron Cooper, Flathead Basin area, said they have specific problems, and they find patterns. They are studying how the air is affected from the data collected from Columbia Falls. It studies the air pollution along with the emphysema and other lung diseases in Lake County as well as in the other areas.

Ben Myren, Missoula, representing the stationary air monitoring station in Missoula showed air filters taken in Missoula from samples of air. He passed these around for the members of the committee to look at and to smell. He said they measure the respiratorial particulate in Missoula which is much higher than was expected. They have a late evening carbon monoxide reading. It is not that high in traffic at that time in Missoula to account for it.

Carol Kirkland, Montana Petroleum Association, said she would like to stand in support of this bill. People need the information that

they hope they will be able to find out about.

Joe Bruck spoke in support of the bill.

David Feffer, Health Department, spoke in favor of the bill; his testimony is attached.

Marilyn Rusoff, Missoula City-Council Board of Health, Walter Koostra, Missoula City-County Board of Health, and Alice Austin, Environmental Quality Chairman, League of Women Voters of Missoula, supported the bill and written testimony is attached.

There were no further proponents, no opponents, and the following are questions from the members of the committee:

Senator Himsl: Perhaps the reason the kids in Great Falls have larger lung capacity is that they have more ambient air there and the kids have to work harder to live there.

Senator Aklestad: How far along is the study?

Mike Roach: The study has completed what would have been done if we had not found positive results. We can sew it up with the studies we have, but we will not answer any of the questions.

Senator Aklestad: How much was the initial study? Answer: \$1,070,000.

Senator Story: Could you preview what is being done as part of this study - what cities, etc.?

Mr. Roach: Originally we were to study five cities. The legislature added East Helena, Hardin and Columbia Falls. That opened the equipment into those areas. (1) Considerable testimony on health effects of it; (2) establish a data basis as to air quality; (3) look at the sources - inventory the sources in the community, and (4) basically try to bring in some conclusions on it. Ambient air; look at meteorology; if any pollution, where in the community, how far out, etc.; and to plug it into the health information. A correlation of the ambient air, meteorology data, health information, etc. To correlate with these is basically where we are now.

Senator Aklestad: What do you propose to do with, say Butte, if you find out it is a hazardous place to live?

Mr. Roach: I don't think the study will provide policy in the future. It will give you and the people there our data base to make a decision in the future. If the radiation problem is what has been indicated, then perhaps the money spent to do the other things should have been diverted

Senator Aklestad: Possibly you could find it is a nature problem that causes this.

Mr. Roach: If we are trying to solve a natural problem, at least we should recognize the money spent for other things is not well spent.

Senator Himsl: Two years ago I had a different idea of the scope. I thought this was an individual data gathering structure so that we could really know what the ambient air quality was in the communities. For that reason we are interested in knowing what affluents were in these other areas. Hopefully, an unbiased source, with the operations monitored and these results of the information made available. I do not quarrel with the next step on checking children. Why wasn't there some continuation in the other area?

Mr. Roach: The original testimony - the original bill broke it down. One-third health effect and the other 2/3 the data gathering. The \$300,000 has been used for other areas in Great Falls and Missoula. We have not done it in Hardin. We have spent it through the other counties, too. The original bill was to take about 1/3 of it.

Senator Himsl: Did the \$350,000 bring us to some firm basis as far as the study was concerned? Did this give a conclusion for a comprehensive study in the areas?

Mr. Roach: I don't think Mr. Bardanouve has been back to request any further studies in the area. If I am in charge of the study it would be designed to end at the end of two years.

Senator Story: When we originally authorized the study, was there federal funds anticipated? Answer: No.

Senator Story: Someone said there might be possible federal funds available now? Answer: The EPA indicated they said that they might be one of the ones to set the participating studies and give them an indication by a certain date.

Senator Story: If they pay you for this, could we expect a reversion of the funds?

Mr. Roach: We don't see it as anything taking away from what we have now. It would be extra work. We would be pooling the information, etc.

Senator Story: Then a budget amendment if you get this? This would be an EPA contract? A contract to coalesce the data?

Mr. Roach: They have asked us to do this.

Senator Himsl: I would like to get the Bozeman girl. You mentioned another technique.

Unidentified girl from Bozeman: We are housed in Bozeman. We have been studying Butte and Anaconda. We are collecting quality data from Bozeman because of the proximity, etc., to us as a control. The air is pure enough to use as a quality base.

The hearing was closed on House Bill 273.

CONSIDERATION OF HOUSE BILL 410: Rep. Thoft, District 92, said this was a bill to support the biological weed control research program in the state. He said the county weed districts in the state are doing the best job possible and the numbers of weeds in the state are getting

out of control. He said we have a viable program but because of the small number of insects we cannot do much. We need to distribute them statewide. With the cost of chemicals that is the only way the state has to go.

Jim Story, researcher in weed control, Agricultural Experiment Station said leafy spurge is taking over a lot of acres in Montana. In 1923 it was first acknowledged as a problem, and now there are 150,000 acres of it. The existing method of weed control is not giving control; the number of acres is increasing. New weed infestations occur around where it is impractical or hazardous to use chemicals. Many of these weeds are inaccessible to the weed control equipment. Biological weed control is necessary to reduce the weed density. He said these insects are selective as to the plants they defoliate and eventually destroy only the plant they are designed to kill, and when the plants disappear, so do the insects since they starve off. He said they know they work, the difficulty is in collecting the insects. This bill would let them establish a greenhouse to raise the weeds and the insects, and then to use the insects in different areas. Studies need to be made to see if they will survive in some of the areas also.

William Reilly spoke in support of the bill, statement attached.

Dale Benge, Montana Weed Control, said he has been in agriculture all his life; was a conservationist and a conservative in Powder River County. He said there is about 1,000 acres of leafy spurge along the Powder River. He said he had visited with some Canadians and they have it also.

George Grosskoff, rancher from Cascade said we have been going backwards with the chemical spraying. Now there is no more help from the ASC and if we can do anything to help this situation along, we had better do it.

Doris Milner, Bitterroot area, read a letter from the Grange Master, Jack Iman, attached. She said she felt that not only were chemicals dangerous, but they were not working, the leafy spurge was expanding by leaps and bounds and we had better do something quick. They supported the bill. She said from a personal standpoint there were many reports from dissatisfied individuals. Problems existed and they had applicators who recognized the fact that they did. They were fortunate to have Mr. Thoft realizing they had to have a different sort of control for the situation to win. She said the biological weed control program is well thought of and well considered in their area. Many people are unhappy about the application of noxious chemicals and what they do and do not do.

Carrie Day, member of the State Board and of the Biological Weed Control, said she was in favor of the bill.

Doug Johnson, State Weed Society and Weed Control, said this will not take control overnight. Chemicals have problems. The sooner we have support and are started on this program the sooner we will be able to rely on it.

Garry Gingary spoke briefly saying he was in full support of the bill.

Tom Murphy, Corvallis, member of the Weed Control and of the Soil Service, said that approximately 10 years ago biological control organized but was short of money. They received a little more money from the Western Montana group. In 1976 they hired Jim and found it a good workable position. More and more states are coming in. The more states coming in the less insects available.

Ben Myren, sportsman, said he was concerned about the population of animals in the areas where leafy spurge and other noxious weeds were taking over so much of the area. As a farm boy, he knew how hard it was to try to control weeds.

Walter Nomak, Stanford said this is important enough to warrant our serious consideration. He is a member of the ASCS and said they work to save state and private assets. He felt this problem had reached a catastrophic stage; if these methods can be developed it will be an asset to both state and private landowners.

Rep. Gene Ernst, Judith Basin County, said they were in full support of this bill in his area. He said an indication of the interest in the control of leafy spurge and the interest of the people there was shown when 300 people showed up at a meeting at Stanford on a blizzardy day. He urged the committee to support the bill.

Sharon Peterson, WIFE and Farm Bureau, said she would urge the support of the committee for the bill.

Bill Otter, Missoula Weed Control District, Missoula County said he urged the support of this bill. He said there was much opposition for chemical control in his field work. He said there was not only an interest, but a demand, for more intensive research and use of the biological method.

Bill Dopp, Flathead County, said that Flathead County was heartily behind the bill.

There were no further proponents, no opponents and questions from the committee follow:

Senator Himsl: At this stage, this program is a sort of greenhouse program? Answer: At this stage we are starting to raise and incubate bugs to use. We need something to raise them in in enough quantity to not only use them in certain areas, but to try them in other areas to see if they will be able to survive in the winter months. A good portion of the follow-up will be whether they can adapt to a climate.

Senator Himsl: Won't you have to generate a whole lot of bugs to do this type of control? Answer: There has been extensive testing done on this. We have to assume they are all right. The question is, do you want to start with the 80 year agreement it would be to do this without breeding them?

Senator Himsl: Is there anyone else breeding these bugs? Answer: We are one of the first.



Senator Himsl: Do you feel this is really effective? Answer: One of the biologists in the Park Service has had some experience with them, also a Ph.D there has done some work. There will be some controversy, I am sure, since there is a lot of money and people involved in the chemical application.

Senator Aklestad: What is going to happen to the bugs once they eat up the weeds? They won't attack something else? Answer: Mother Nature takes care of that. As the weeds decline, so does the population of bugs decrease until they have both disappeared. To keep some of them from being eradicated, there would have to be some weeds for them to eat. This matter of equilibrium we can work with. Essentially, the insects starve to death when the host weed is gone.

Rep. Thoft: There have been some remarkable results in the tests made with selective bugs on host weeds. One was made on cactus. He said the experimental section they have worked with, the infestation of leafy spurge is reduced to an occasional weed. They want to make the experiment in Western Montana statewide. He would urge the support of the committee.

The hearing on House Bill 410 was closed.

CONSIDERATION OF HOUSE BILL 9: Rep. Dr. Lory, said this bill appropriates \$135,000 for the purpose of funding the operation of the Montana Criminal Law Information Center (MONTCLIRC), and told some of the duties and work that MONTCLIRC does. He said they do a lot of research for the county attorneys and save the counties a lot of time and money in research.

Dean Marjorie Brown, Acting Dean of the School of Law, waid the decision of the simplest way to get the information out to the various areas of the state. After 3 years she felt she could tell the committee that it has lived up to the highest expectations. She said the average age of the ones coming in is 26 years old. About 26 work effectively in MONTCLIRC and set up a bank of information to be used. These same people are the ones who go out and serve as assistant attorney generals or that type of office and are much better equipped to do the job after this training.

Mike Abley, Administrator of the Supreme Court, said that Chief Justice Haswell asked him to appear in support of the bill. This gives a lot of attorneys the benefit of getting this information at a less expensive means of information.

Jim Renny, Director, MONTCLIRC, said MONTCLIRC has proven itself to be tremendously worthwhile. Just in extra law clerks, researchers, etc., has saved Montana a great deal of money. It has saved about twice much as it costs. We have saved in Cascade and Yellowstone, and perhaps in Missoula where we have done enough research to have hired these people as attorneys. Much of the research that is being done would cost the counties \$25-\$35 an hour for an attorney-we charge \$4, and in some cases it can be worked into a work study program where the federal government picks up \$3 a day of this.

Tom Honzel, Montana County Attorneys, said we use this project. We need it and have found the results are good. We get into a trial and the judge needs something researched quickly. We can get on the phone and get the information quickly. This not only saves research time, it also saves trial time

Senator Van Valkenberg spoke in favor of the bill. He said this is a program started with federal money and picked up with state money. This program has proven to be a cost savings for prosecutors who don't have to send a person to Helena or to Missoula to do research.

Senator Himsl: This was funded by LEAA. They seem to have money now for all kinds of deals. I am not questioning the usefulness of having this research available, but why can't LEAA continue it? Answer: We requested this and we were told we could be 99.9% sure of funding for a second year. Now they say it is a one year pilot program. There will be a number of such programs started across the nation. There are about a dozen starting up all over the country at the present time.

Senator Himsl: What about the crime control board that has grants fund this? Answer: We have gone through this. They are used as a conduit for the money, but do not have the money to handle this program.

Senator Himsl: Aren't we subsidizing a private service direct from the state? Why can't some of these other groups fund it?

Director: We considered this. A consortium of interested groups. This was discussed, the attorney general felt any funding directly through his office was not the right thing to do. We explored the possibility of a pay-as-you-go basis. Often parttime county attorneys, or parttime public defenders are involved. A large percentage of our requests are from others than attorneys.

Rep. Lory: I don't know whether you have heard H .B. 568. Rep. Scully was using a method of increasing registration fees for automobiles for funding the forensic lab. It will probably come before you or before the Taxation Committee. If 568 passes that is an earmarked revenue fund for MONTCLIRC. 568 is an increase in motor registry fund. It includes some of these but I am not too confident of the success of that bill.

Senator Regan: How much was the original grant for this? Answer: There was a \$92,400 initial grant. We made the money extend for an additional 4 months. The Board of Crime Control helped us. There was \$100,000 for a computer service. We did that by hand. We then spent some emergency funds from the Crime Control. That money held us until the end of January. We matched a private grant which is carrying us until the end of June. It was given to us with the understanding if we don't get state fundint that is the end of the ball game.

The meeting was ajourned.

ROLL CALL

SENATE FINANCE AND CLAIMS COMMITTEE

46TH LEGISLATIVE SESSION 1979

Date 4-6- <sup>am.</sup>

NAME	PRESENT	ABSENT	EXCUSED
SENATOR HIMSL	✓		
SENATOR STORY	✓		
SENATOR AKLESTAD	✓		
SENATOR LOCKREM	✓		
SENATOR ETCHART	✓		
SENATOR NELSON	✓		
SENATOR SMITH	✓		
SENATOR BOYLAN	✓		
SENATOR REGAN	✓		
SENATOR FASBENDER	✓		
SENATOR THIESSEN			✓
SENATOR THOMAS	✓		
SENATOR STIMATZ	✓		

VISITOR'S REGISTER

NAME	REPRESENTING	Check One	
		Support	Opp
Donna Milner	Self at Biological Weed Control Funding	✓	
Bepa Bob Skraft	bio weed control	✓	
CARL DRY	MT BIO WEED CONTROL COUNCIL MELA WEED CONTROL BOARD	✓	
Ron Cooper	Flathead Assn Study Steering Committee H.B. 273	✓	
Arala Berger	Montana Weed Control	✓	
Jim Story	Biological weed control	✓	
Gary Spivey	Mt. Dept. of Agric H.B. 410	✓	
Douglas L Skraft	Cascade Co Pesticide Program	✓ <sup>410</sup>	
Bill Dapp	Flathead Co. Kelpinell Mont	✓	
Bill Otten	Missoula Co. Weed District	410 ✓	
Daniel Lynn	private		
W.H. Shilly	Stanford - B. Weed Dist	410 ✓	
Katherine Wylly	Stanford, Mont Self	410 ✓	
1100 HALL	Missoula, Mt. / MONTCLIRC <sup>HB9</sup>	✓	
Steve Johnson	Missoula - MONTCLIRC <sup>HB9</sup>	✓	
Margaret Johnson	Missoula, Montana - MONTCLIRC <sup>HB9</sup>	✓	
James T Ranney	MONTCLIRC - Director HB9	✓	
Dolores Reicht	House Delegation Committee	H.B. 919	
Ryker Ernst	Dist 47	HB 410	
R.F. Davison	Mont Grain Elev Assn		80
Melvin Underdel	Rep. Dist. 12	HB 410	
Ron Hareday	Parks DIVISION	HB 773	
Hal Roblin	Citizen	HB 273	
Steve Medves	AQB	HB 273	
Janice Connor	M+P+M	HB 273	
Ben Myam	SELF -	HB 410 HB 273	
Polly Helms	Rep. Dist. # 67	HB 919	

VISITOR'S REGISTER

NAME	REPRESENTING	BILL NO	Check One	
			Support	Oppos
ELROY LETCHER	MT COUNCIL OF COOPERATORS	HB 849	✓	
Bob Schacter	Montana Farmers Union	HB 849	✓	
Devere T. Leander	Mt. Medical Assoc.	H 919	✓	
Jim Turner	Weed Control	HB 410	✓	
RITA SHEEHY	MAPS	HB 273	✓	
Margery H. Brown	Missoula - MONTCLINE	HB 9	✓	
George Grosshoff	My Self	410	✓	
Tom Murphy	Rosalia Co SCS Rosalia Weed Board	410	✓	
Wendell Blossman	My self -	410	✓	
Bill Dapp	Flatted Co.	410	✓	
Keith Herrin	Lewis + Clark Co. Weed Dist.	410	✓	
R.T. Crankshaw	Practic Health Services (SPHO)	919	✓	
Joan Miles	Environmental Hyg. Center	273	✓	
SHARON PETERSON	NFO FARM Bureau WIFF	410	✓	
" "	" "	849	✓	
Charles D. Hundley	MT. FOUNDATION For Medical Care	919	✓	
RICK BOYLAN	ASSOCIATED STUDENTS OF MONTANA STATE UNIVERSITY	410	✓	
David Fetter	MAPS	273	✓	
Kit Johnson	MAPS	273	✓	
Betty Wing	MAPS	273	✓	
Suzanne Wharren	M.S.U.	273	✓	
Tom Hong	County Attorney	HB 5	✓	





*at schina*

House Bill 356

This bill is a proposal to provide a means to resolve the unfunded liability situation of the Game Wardens' Retirement System.

The normal cost for the game wardens' retirement benefits is 17.84% of salaries which is presently funded by the employer contribution of 11% and the employee contribution of 7%.

The trust fund assets, at June 30, 1978, was \$2.21 M and the unfunded liability was \$3.59 M. (From the July 1, 1978, Actuarial Valuation of the Game Wardens' Retirement System). This relates to the June 30, 1976, Actuarial Valuation wherein the assets of the system were stated at \$1.8 M and the unfunded liability \$3.05 M (1977 Actuarial Valuation)

The Actuary in his report of July 1, 1978, recommends an additional 8.92% employer contributions to completely fund the unfunded liability over a 40-year period.

House Bill 356 would provide the funding recommended by the Actuary within the 40-year funding period.



P. E. R. S.

Employee 6.0%  
Employer 6.2%  
Social Security

JUDGES

Employee 6.0%  
Employer 6.0%  
Court Fees 20.0% of salary  
Supreme Court Fees, 25% of  
Court Fees  
Social Security

GAME WARDENS

Employee 7%  
Employer 7%  
Fines and Forfeitures  
4% of salary  
Social Security

HIGHWAY PATROL

Employee 6.5%  
Employer 16.0% salary out of  
drivers license fees  
No Social Security

SHERIFFS

Employee 7%  
Employer 7.55%  
Social Security

POLICE

Employee 12.0  
City 12.0  
State 12.0  
No Social

60 with 5 years service  
55 actuarially reduced benefit  
65 no minimum service  
Any age after 30 years service

1/60 x yrs. of serv. x FAS \*

5 years service

25% of FAS or 90% of Annuity  
which would have been paid at  
retirement

Member contributions and inter-  
est plus 1 mo. salary for each  
year of service up to 6 years  
or if member has 5 yrs. or more  
of service, beneficiary may  
elect the annuity based on the  
actuarial equivalent

Contributions plus interest

Least 36 months

ed if member has more than 10 years service  
prior pension paid by state  
position retired from

65 and 5 years service  
5 years service, actuarially  
reduced benefit

3-1/3% for 15 years \*\*\*\*  
1% for each year thereafter

Actuarial equivalent non-duty

1/2 paid if duty-related

Non-duty, actuarial equivalent  
Duty-related annuity to equal  
retirement benefit

Contributions \*\*

25 years and 55 years of age  
20 years at 55, actuarially  
reduced benefit

2% per year, 25 years service  
Retirement at 55, mandatory at  
60 years of age

Non-duty actuarial equivalent

Duty-related after 10 years  
service 1/2 pay

Non-duty death actuarial  
equivalent  
Duty-related - 1/2 FAS less  
amount paid by workers' comp.

Contributions \*\*

25 years - 1/2 pay  
20 years - 1/4 pay  
10-20 years - Actuarially  
reduced

Actuarial equivalent non-duty  
Duty-related, 1/2 FAS

Actuarial equivalent, non-duty  
Duty-related, 1/2 FAS

Non-duty death, actuarial  
equivalent  
Duty, 1/2 FAS less amt. paid  
under workers comp.

Contributions \*\*

2% - 25 years serv. age 55  
20 yrs. serv., actuarially  
reduced benefit  
1/2 pay, 25 years serv.  
Compulsory retire. 65 yrs. age.

Actuarial equivalent non-  
duty  
Duty-related, 1/2 FAS

Actuarial equivalent non-  
duty  
Duty-related, 1/2 FAS

Lump sum. Actuarial equi-  
valent of 2% for each year  
of serv. up to 25 yrs. Duty-  
related, 1/2 FAS less amt.  
paid under workers comp. Max.  
15 yrs. or until member would  
have reached age 65

Contributions and interest

No age re-  
prior to 7  
age 55, if  
7/1/75. 1  
age 65.

2% of sal  
yrs. serv.  
add'l yr.  
of final s

1/2 FAS ei  
duty

Spouse rec  
death or 1  
children v

Contributi

GAME WARDENS'  
RETIREMENT SYSTEM

ACTUARIAL VALUATION

AS OF

JULY 1, 1978

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## INTRODUCTION


As requested by the Public Employees' Retirement Division of the Department of Administration, an actuarial valuation has been completed on the Game Wardens' Retirement System established under Section 68-1403, R.C.M. 1947.

The purpose of the valuation was to determine the position of the fund, the normal cost, and the unfunded accrued liability based upon present and prospective assets and liabilities of the system as of July 1, 1978. The valuation was based upon employee data and other records maintained by the Public Employees' Retirement Division as of June 30, 1978.

This report presents the results of the valuation.

## ACTUARIAL CERTIFICATION

Based upon the assumptions stated herein and the data submitted by the Public Employees' Retirement Division, the valuations have been performed in accordance with generally accepted actuarial principles and techniques.

  
Alton P. Hendrickson  
Associate of the  
Society of Actuaries

## ANALYSIS OF VALUATION

The regular contribution rate for funding the Game Wardens' Retirement System is 18% of each active game warden's salary. This rate is comprised of 11% from the state and 7% from each member.

In valuing the aggregate cost of the total system, it was determined that 17.84% is required to meet liabilities as they accrue each year. As shown in Schedule 2 of this report, regular contributions of 9.08% would be required to amortize the unfunded past service liability of \$3,587,419 over a period of 40 years.

The current contribution rate of 18.00% allows .16% of salaries to be applied to the amortization of the unfunded liability. This amount is insufficient to adequately fund the liability.

As a result of this valuation, we strongly recommend that action be taken to place the System in a more stable financial position. If the current benefit structure is to be maintained, then we recommend an increase of 8.92% of the covered annual payroll.

SCHEDULE 1

NORMAL COST ALLOCATION

(1) Normal Cost Contribution	<u>Rate</u>
(a) Retirement	14.68%
(b) Death	.97
(c) Disability	1.60
(d) Termination	.59
(e) Total Rate	<u>17.84%</u>
(2) Present Value of Future Salaries of Present Members	\$17,837,012
(3) Present Value of Future Normal Costs for Present Members (1(e) X (2))	\$ 3,182,123

SCHEDULE 2

CONTRIBUTION AND LIABILITY ALLOCATIONS

Unfunded Accrued Liability

(1) Present Value of Benefits (Schedule 3)	\$ 8,976,850
(2) Present Value of Future Normal Costs (Schedule 1)	3,182,123
(3) Trust Fund Assets	2,207,308
(4) Unfunded Accrued Liability (1)-(2)-(3)	<u>\$ 3,587,419</u>

Contribution Rates

(5) Normal Cost Contribution Rate (Schedule 1)	17.84%
(6) Present Value of Salaries of Members During Next 40 Years	\$ 39,513,294
(7) Unfunded Liability Contribution Rate (4)/(5)	9.08%
(8) Total 40-Year Funding Contribution Rate (5)+(7)	26.92%
(9) Statutory Contribution Rate	
State	11.00%
Member	<u>7.00</u>
Total	18.00%

SCHEDULE 3  
ACTUARIAL BALANCE SHEET

<u>Assets:</u>			
(1)	Trust Fund	\$ 2,207,308	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	3,587,419	
(3)	Present Value of Future Contributions for Normal Costs	<u>3,182,123</u>	
(4)	Total Assets		\$ 8,976,850 =====
 <u>Liabilities:</u>			
(1)	Present Value of Benefits-Inactive Members		
	(a) Retirement	\$ 1,119,427	
	(b) Death	211,487	
	(c) Disability	359,600	
	(d) Termination	<u>-0-</u>	
	(e) Total Inactive		\$ 1,690,514
(2)	Present Value of Benefits-Active Members		
	(a) Retirement	\$ 6,213,169	
	(b) Death	345,453	
	(c) Disability	578,157	
	(d) Termination	<u>149,557</u>	
	(e) Total Active		<u>\$ 7,286,336</u>
(3)	Total Liabilities		\$ 8,976,850 =====



SCHEDULE 4

DISTRIBUTION OF MEMBERSHIP

Active Members

<u>Age Group</u>	<u>No. of Members</u>	<u>Average Service</u>	<u>Average Salary</u>
Under 25	7	0.89	\$ 790.72
25-29	9	1.71	962.65
30-34	19	5.91	1,155.88
35-39	15	8.13	1,229.02
40-44	16	13.15	1,368.11
45-49	9	16.50	1,307.69
50-54	10	21.15	1,372.81
55-59	9	24.80	1,525.71
60 and over	<u>2</u>	<u>28.92</u>	<u>1,518.70</u>
Total	96	11.53	\$1,237.00 =====

Members and Beneficiaries  
Receiving Benefits

<u>Age Group</u>	<u>No. of Members</u>	<u>Average Benefit</u>
Under 45	1	\$556.69
45-49	3	213.44
50-54	3	387.91
55-59	2	328.79
60-64	10	606.70
65-69	5	446.58
70-74	2	347.51
75 and over	<u>1</u>	<u>498.77</u>
Total	27	\$463.41 =====

## METHOD OF FUNDING

The method of funding employed is commonly referred to as the "entry-age normal cost method". This method establishes a normal cost for each member as well as an unfunded accrued liability. The normal cost is the level percentage of annual salary required to fund the benefits assuming this percentage had been contributed since the member's entry into the system and would continue throughout his active service lifetime.

The unfunded accrued liability represents the liability for accrued benefits which have not been previously funded. In order to maintain the systems on an actuarially sound basis, the rates of contribution should be such as to meet the normal costs in addition to amortizing the unfunded accrued liabilities over a reasonable period of future years.

In determining the normal costs and unfunded accrued liabilities, certain assumptions were made as to the expected experience of the funds. The assumptions applicable to each of the systems are described on the following pages.

## ACTUARIAL ASSUMPTIONS

### Mortality Rates

The mortality rates for active members are based upon the 1971 Group Annuity Mortality Table.

<u>Age</u>	<u>Death Per 100,000</u>
25	62
30	81
35	112
40	163
45	292
50	529
55	852
60	1,312
65	2,126
70	3,611
75	5,529
80	8,743
85	13,010

### Disability Rates

The disability rates are based upon the male disability rates published by the Railroad Retirement Board in its seventh valuation, modified to reflect the higher disability risk of highway patrolmen.

<u>Age</u>	<u>Disabilities Per 100,000 Active Members</u>
25	90
30	90
35	90
40	202
45	428
50	765
55	1,494
60	2,886

### Withdrawal Rates

The withdrawal rates illustrated below reflect the turnover experienced by the Highway Patrolmen's Retirement System.

<u>Age</u>	<u>Withdrawal Per 100,000 Active Members</u>
25	6,330
30	4,750
35	2,530
40	1,820
45	570
50	280
55	0

### Salary Scale

The salary increases are based upon the actual experience of the systems regarding longevity and meritorious increases, together with an inflationary adjustment of 4% representing projected cost-of-living increases.

<u>Age</u>	<u>Expected Salary at age 55 as a Multiple Of Current Salary</u>
25	6.44
30	5.30
35	3.98
40	2.98
45	2.21
50	1.67
55	1.47
60	1.00

### Investment Earnings

A rate of 6% per annum was assumed for future investment earnings.

SUMMARY OF BENEFITS AND CONTRIBUTIONS

- Effective Date - July 1, 1963
- Member Contributions - 7% of salary. Optional after 25 years of membership.
- State Contributions - 11% of active game warden's salaries.
- Retirement Benefit - Minimum service: 20 years  
Minimum age: 55  
Mandatory retirement: age 60  
Normal form: Life annuity with a death benefit equal to the present value of the retirement allowance at the date of retirement less all retirement benefits paid to date (full cash refund annuity).
- Benefit: 2% of the average monthly salary during the highest 36 consecutive months of earnings times years of service, subject to a maximum of 50% of such monthly base salary. Members who elect to contribute for more than 25 years receive an additional allowance equal to the actuarial equivalent of member and state contributions made after 25 years of service.
- Disability Benefit - Service disability with 10 years of service: 50% of the average monthly salary during the highest 36 consecutive months of earnings.
- Other disability: Actuarial equivalent of the member's accrued retirement benefit.
- Death Benefit - Service death: 50% of the average monthly salary during the highest 36 consecutive months of earnings less any amount payable under the Workers' Compensation Act.
- Non-service death: Actuarial equivalent of the member's accrued retirement benefit.
- Termination Benefit - If services discontinued prior to completion of 10 years of service, return of accumulated contributions without interest. If service discontinued on or after completion of 10 years of service, either return of the aggregate of accumulated contributions with interest or the actuarial equivalent of the member's accrued retirement benefit.

# tion allowing marketing compact down but not

grain-producing states could pool their knowledge and resources and draw on the expertise of grain specialists in an attempt to examine today's grain marketing system for areas of possible improvement to benefit producers.

The proposal is a grassroots effort to help farmers improve their position, according to Johnson.

Such a compact would provide a means of using state authority to analyze the system as it affects producers and the economy of participating states. Johnson also said the proposal, being 'farm state' legislation, would be more responsive to farmers' needs to build a marketing system that would give more consideration to the needs of growers. Such farm inputs are no longer possible in the urban-oriented U.S. Congress, she said.

While it is emphasized that marketing quotas, or any other specific objectives are not a part of the compact, a market quota system is offered as one possibility if producers decide they needed this to back up marketing efforts. Such a system at present can only be instituted through a program regulated by the federal government. However, it is noted the

federal government is not inclined to return to an allotment system. But states can, if they wish, use a compact arrangement to do so if growers want it.

A side benefit to such program would be others to help counteract the loss of natural resources — soil, water and which, which some see as being threatened by all-out production.

The overall concept involves shifting some of the decision-making on agricultural marketing from the federal government back to the states, giving producers more access to and clout in the marketing process. Along with this, such things as conducting a review of the whole system of grain marketing and recommendations for any needed changes. This could include such things as transportation and many other related farm problems.

The basic concept calls for adoption by at least five states, each participating state to have three members, one from the House, one from the Senate and one appointed by the governor.

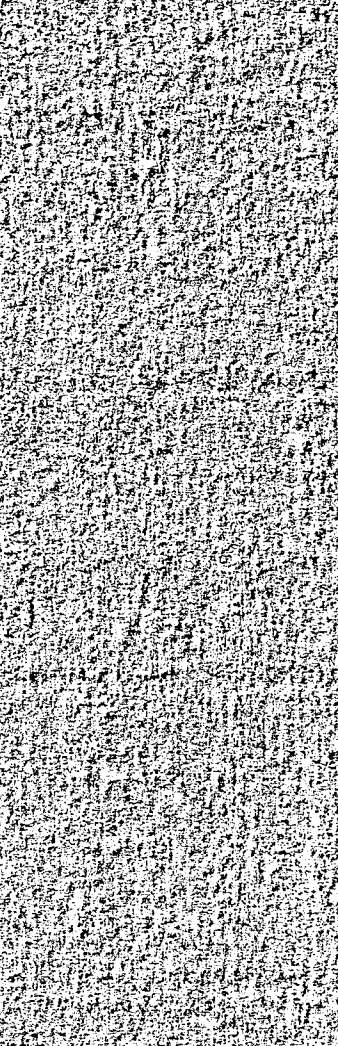
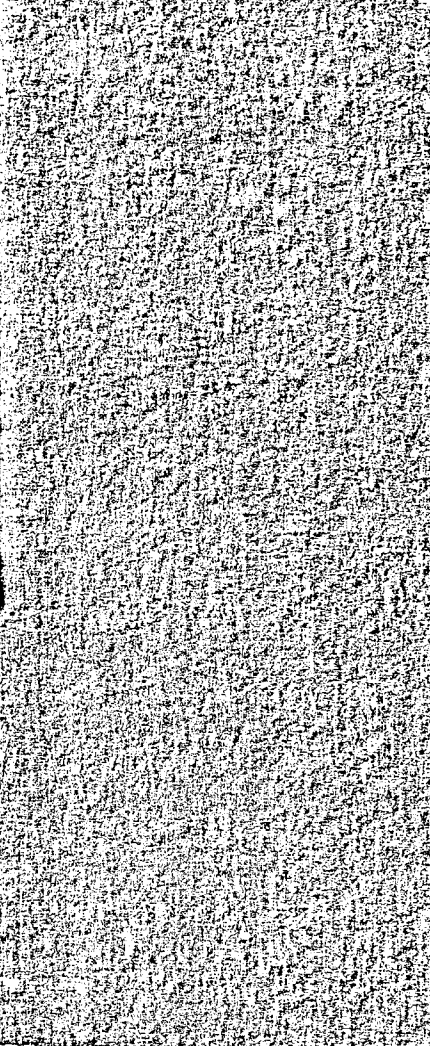
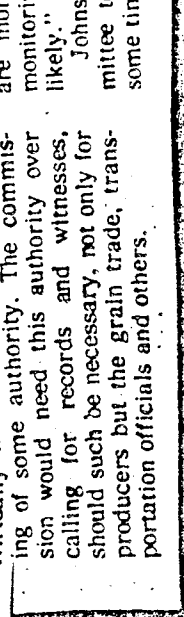
Commission members would then hire a staff, and they would undertake approved preliminary investigative

work based on producer input. Subpoena powers would be available to the commission, but enforcement would be through the courts so that anyone objecting to a subpoena would have opportunity to voice such objections to a judge. There is also an escape clause which reads: "The provi-

sions of the subpoena paragraph apply only in states that have adopted this article."

But proponents say the subpoena power is necessary for a fully effective compact, and anything less would be like having a police force without the power of arrest. The remainder of the document is pointed out as being virtually meaningless without granting of some authority. The commission would need this authority over calling for records and witnesses, should such be necessary, not only for producers but the grain trade, transportation officials and others.

Another bill that ate another "Perhaps if it worth some of Washings farmers legisla are monitori Johns mittee some tin



concerning a multi-compact with states debate. But

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## Grain compact simmering

IN — A movement by grain raisers and their organizations to form a multi-state marketing compact quietly gained momentum in the past few months. Centered in Kansas and neighboring states, and including feed grain producing states, the movement is steadily gaining. A mid-October meeting in Topeka, Kan., saw legislators from 14 states and half a dozen farm organizations, an equal number of major grain companies, several federal officials and the Kansas City Board of Trade, among others, represented. The conference left no doubt far-ant that their agricultural market practices changed.

The amount of persuasion to the farmers from grain corporations, grain companies, of trade, or the Commodity Stabilization and Trading Commission is about the same. "The hide of these wheat farmers," a spokesman said, "is hidden by continual low prices and periodic interference from the federal government, through boy-bombardments, and inaction to prevent railroad and dock strikes and general hopper car shortages." "The indifference and reactions are reported to leave no doubt that producers are looking to state governments to get them out of their marketing ruts. They have given up hope of any meaningful action from Washington," they say in concert at these meetings. "It now behooves state lawmakers to come up with workable plans, the beginning of which should be a binding, multi-state compact that would open the door for negotiations into viable marketing alternatives and other agricultural

all cooperating states produce large quantities of the same commodity, such as wheat. This has brought a solid brock of grain-producing states from North Dakota to Texas and Colorado to Indiana to the meetings thus far.

Among the subjects under fire are speculative short selling of 'paper grain', for confusing the market regarding actual amount of grain available for world consumption, and what is called monopoly of a few major grain companies in marketing.

"The grain merchants and bureaucrats should be now aware of the growing disension among producers over the pricing structure for farm products," another spokesman said.

"Farmers, especially wheat growers, are fed up with having price-depressing factors over which they have no control being passed back to them, while invirtually all other industries such costs go the other direction — to distributors, suppliers, and ultimately, consumers."

Whether it's called an underlying current or an overriding wave, these grain producers say the jawboning has ended: the next step is toward a multi-state grain compact.

list of suggested topics to be considered in forming a multi-state compact has been drawn up and distributed to lawmakers from various states at the conference. These are to be turned to the Kansas Revisor of Laws, who will then draft a pro-compact from the recommendations. Congressional ratification would be required. It should be approved at a one-day meeting of legislators and state officials, scheduled for Dec. 14 in Topeka.

It was pointed out that lack of federal action would not prohibit the states from cooperating, but federal ratification would be necessary if the compact were to encroach upon federal authority or create an imbalance in interstate or foreign commerce.

Producers working on the proposal of the established grain trade, as well as the federal government and others, are not taking the matter lightly. The major grain trade has been represented at all meetings, as well as the federal government and other officials. A representative from the Indian House of Commons, a basic requirement for such a

# NEWS LETTER

Kansas

## COOPERATIVE COUNCIL

700 KANSAS AVENUE, TOPEKA, KANSAS 66603 -- Phone 233-4085

Published Semi-Monthly Annual Subscription Rate \$8.20.

2nd Class Postage Paid at Topeka, Kansas.

No. 15 - August 9, 1978

### VISITING LAWMAKERS WANT GRAIN PROBE TO CONTINUE

It's uncommon to say the least, if not almost unheard of, for 10 Kansas legislators and 14 or 15 out-of-state lawmakers to spend 2 days discussing a topic, then adopting, by unanimous agreement, a resolution to continue the study. But that's what happened on July 26-27 when the Kansas Legislature's Special Committee on Grain Marketing hosted a conference to discuss the feasibility of a multi-state compact to examine agricultural grain marketing practices, as directed by last session's passage of House Bill 2794, supported by this state's cooperatives.

A solid block of grain-producing states from North Dakota to Texas and Colorado to Indiana, were represented at the meeting in the State Capitol in Topeka. Besides Kansas, states represented included North and South Dakota, Iowa, Nebraska, Oklahoma, Texas, Colorado, Illinois, Indiana, Missouri, and Washington. Participating were legislators, secretary's of agriculture, and attorneys general. Interested observers were present from several of those states, plus Ohio, Maryland, and Washington, D.C.

Farm organizations identifiable in the spectator gallery included the Kansas Grain and Feed Dealers Association, Kansas Farm Bureau, National Farmers Organization, American Agricultural Movement, Kansas Farmers Union, Kansas Grange, Concerned Farm Wives, the Kansas Livestock Association, Kansas Corn Growers Association, Fax-Mar-Co, your Co-op Council and some co-op elevators. Other spectators were from universities, the U.S. Senate Ag Committee, the Kansas Grain Inspection Department, Kansas Budget Department, the Kansas City Board of Trade, grain dealers, the Kansas Department of Transportation, Commodity Dealer's Licensing Association, the Federal Grain Inspection Service, and the Council of State Governments.

Approval was given for the Kansas Committee to draft a 'compact' to be considered at the next meeting scheduled for Oct. 2-3, also in Topeka. During its recent legislative session, the Nebraska Unicameral approved the compact concept. At the recent meeting in the Kansas House Chamber no doubt was left that the other states represented at the meeting would at least propose the concept to their respective legislative bodies.

Speakers at the July session included Dr. Roy Frederick, Extension economist in grain marketing at Kansas State University; Dr. Dan McCurry, economist, previously with the ASCS, now on the board of Rural America, Inc., and Consumers Federation of America; Al Krebs, journalist and director of the Agribusiness Accountability Project in San Francisco; Nelson Coyle, Research Assistant to the Food and Agriculture Credit



Minister, Canadian House of Commons, and Dr. Rick Gilmore, Overseas Development Council and former member of the Senate Foreign Relations Subcommittee on Multinational Corporations.

Here are comments by these speakers on some of the topics covered.

**THE MULTINATIONALS:** (Krebs) - "In wheat, corn and soybeans, six major multiproduct, multinational and often multibillion dollar corporations control nearly 90% of the world's grain trade—Cargill, Continental, Bunge and Born, Louis Dreyfus, Archer-Daniels-Midland (ADM) and Peavey Corp.

"For those devotees of the modern myth that bigness is better, the scope of the grain trade's marketing power is impressive. For people concerned about an adequate and nutritious food supply, fair prices, freedom of choice, and the general welfare of a world without hunger, the grain trade's power and control deserve close scrutiny.

"The leaders in the grain trade are the Cargill Corporation and Continental Grain, who each control about 25% of the market. They are followed by the Argentine Bunge & Born Corp. with approximately 15%-20%, and the French-held Louis Dreyfus Corp. with 10% of the trade. Both of the latter corporations have large U.S. subsidiaries. These four, which control almost 80% of the world's grain trade—Cargill, Continental, Bunge, and Louis Dreyfus—are all privately-owned corporations.

"The remaining 20% is dominated by the Peavey Corp., and Archer-Daniels-Midland, both publicly-held firms, which together control approximately 5%-10% of the trade.

"Controlling interest in the Cargill Corp. is held by the MacMillan family and Continental grain's control rests solidly in the hands of Michel Fribourg. The MacMillan family and Fribourg are each reportedly worth between \$400 and \$600 million.

"Cargill sends more than 25% of its invested capital abroad. The company's world-wide storage capacity exceeds 200 million bushels of grain, marketed via some 3,000 rail cars, 400 river barges, and 14 ships.

"Continental owns and operates over 30 U.S. grain elevators with a domestic storage capacity of over 3 million tons, and in excess of 500,000 tons abroad.

"Bunge's storage capacity is around 100 million bushels. It maintains offices and agents in 80 foreign countries; has 22 river, five interior rail, and four port terminals and over 100 country elevators in the U.S. It operates 105 barges with nearly 100,000 gross tons and controls 75,000 railroad cars.

"Louis Dreyfus' activities in the U.S. are pretty much limited to the traditional grain trade business. In Europe it owns a shipping fleet of more than a million tons, operates ships on a time-charter basis.

"ADM is the nation's largest soybean processor with a soybean crushing capacity of 150 million pounds and oil refining capacity of 1 billion pounds. It is also the largest processor of bulk finished oils in the U.S., and the nation's third largest flour miller. In addition to maintaining 42 country elevators, the company is the nation's largest barge shipper on the Mississippi, with 70 facilities in 40 cities in 18 states producing and marketing more than 400 products.

April 8, 1979

Senate Finance and Claims Committee  
State Capitol  
Helena, Montana 59601

Mr. Chairman and members of Senate Finance and Claims Committee:

I wish to testify this morning on HB 849 as a former legislator in 1977-1978. This bill came about as a result of HB 2794 which was passed by the Kansas Legislature in 1978. As a result they created an Agricultural Grain Marketing Committee "to contact and meet with representatives of other major agricultural grain producing states of the United States for the purpose of conducting a comprehensive and continuing study and investigation of agricultural grain marketing practices, procedures and controls and their relationship to and effect upon the agricultural economies of the participating states and making recommendations for the correction of weaknesses or solutions to problems in the present system or the development of alternatives thereto."

The State of Montana was contacted and several state legislators were asked to attend. No one did although I started to Wichita Kansas in December to represent Montana but due to mechanical trouble at Billings I was forced to cancel my trip.

I received all of the information developed from this committee and was fortunate to have members of this legislature sponsor HB 849 which is before you today. Farmers as a whole feel the present marketing system is not working and they want changes. It is felt the Federal government through boycotts, embargoes, and in-action to prevent railroad and dock strikes along with perennial car shortage's has failed.

The compact could investigate the speculative short selling of "paper grain" which is confusing the markets regarding the actual amount of grain available for world consumption. We wonder if the ~~five~~ major multi national grain companies constitute a monopoly in world trading as they buy and sell from all countries and use their power to hold down prices. They make as much when prices are low as when they are high as their margin is on bushel volume.

On the state scene in the Great Plains, Agriculture is a concern of State Governments. The level of tax revenue reflects the economic health of agriculture - the economic base of most states.

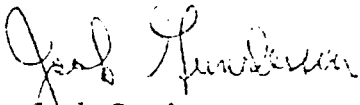
Therefore, I feel it is of utmost importance that State Governments take an interest in the problems of Agriculture. Actions of one state will have little influence, but a joint effort can lead to problem solving.

A State Compact can address the problems of transportation, of the effect of an unstructured commodity market system. A State Compact could address the impact of continuous all-out agricultural production on our land, and energy resources and its price depressing effect. There is a point of deminishing returns for producers.

From such deliberations a united voice can rise from our legislative assemblies to focus attention on Agriculture's problems at the Federal level as well.

In 1978 Montana produced 146,050,000 million bushels of wheat. We produced 56,375,000 bushels of barley. If we could raise the price of these two commodities by only 1¢ per bushel it would mean \$2,024,250.00 additional income to Montana producers. I think \$50,000.00 in general fund moneys would be repaid in increased tax revenue many times over.

I hope you and your committee will support the bill and the appropriation. This is a new approach to solve farm marketing problems. I think we owe it to our farmers to at least give it a try.

  
Jack Gunderson

STATE OF KANSAS



OFFICE OF THE GOVERNOR

State Capitol  
Topeka 66612

Carlin Governor

March 8, 1979

The Honorable Vicki Johnson  
House of Representatives  
State Capitol Building  
Helena, Montana 59601

Dear Representative Johnson:

I'm happy to advise you that the Multi-State Grain Marketing Compact Bill passed the Kansas Senate 38-0 on February 27, and has been sent to the Kansas House.

The bill contains the original language that was adopted at the September meeting of which you were a part.

I might note that the galleries were packed with Kansas farmers who offered their support for the measure. Moreover, many in Kansas consider the passage of the bill by the Senate to be a major victory for the American farmer.

As I said in my early letter of February 6, the time to act is now. But it will take the organized and coordinated efforts of all of our states to make the compact a reality.

Again, I expect to sign the bill before the Kansas Legislature adjourns in April. I will keep you apprised of what is happening in Kansas and I would hope that you would let me know what is happening in your state.

For the sake of our agricultural community and the nation as a whole, I again strongly urge you to join with me in supporting the compact.

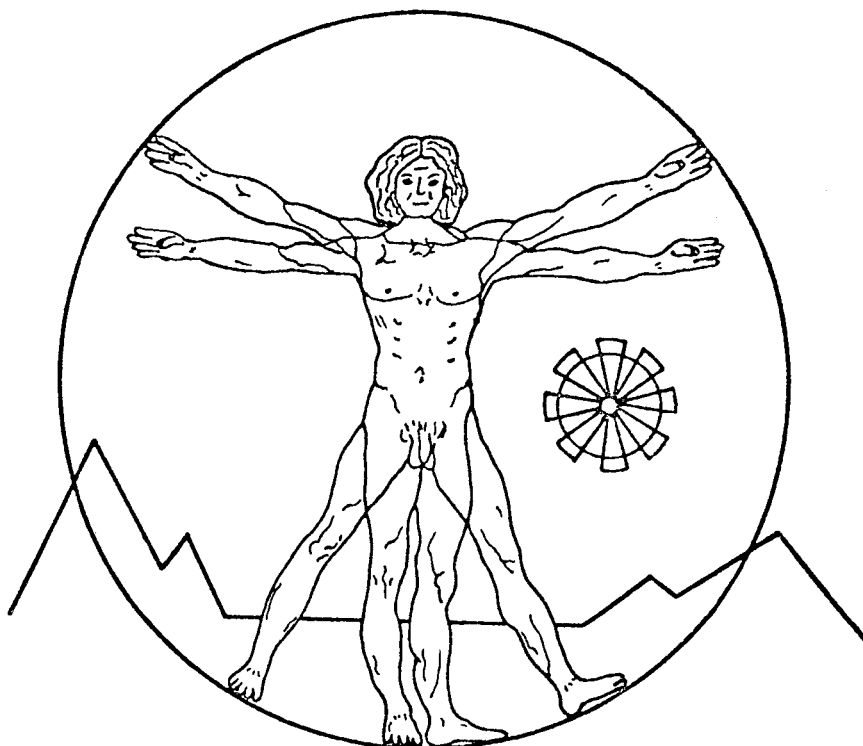
Sincerely,

A handwritten signature in cursive script, reading "John Carlin".

JOHN CARLIN  
Governor

**MONTANA AIR POLLUTION STUDY  
1977 - 1979**

**APPROACH AND METHODOLOGY  
December 1978**



**AIR QUALITY BUREAU**

**ENVIRONMENTAL SCIENCES DIVISION**

**DEPARTMENT OF HEALTH & ENVIRONMENTAL SCIENCES**



# Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

AIR QUALITY BUREAU  
Cogswell Building  
(406) 449-3454

HB 273

A. C. Knight, M.D., F.C.C.P.  
Director

## M E M O R A N D U M

TO: Senate Finance and Claims Committee

FROM: Michael D. Roach, Chief

SUBJECT: Budget for MAPS Extension

DATE: April 3, 1979

Below is the proposed budget breakdown for the \$350,000 requested by the Department of Health and Environmental Sciences to complete the Montana Air Pollution Study (MAPS) during the 1980-1981 biennium. It is assumed that during the first year (FY 80) the health effects and field monitoring activities will be most extensive to complete a three-year data base. During the second year (FY 81), the majority of the effort will be devoted to a thorough analysis of the gathered data, as well as to report writing and publication.

<u>Area</u>	<u>FY 80</u>	<u>FY 81</u>
1. Field Monitoring (Air Quality/Meteorology)	\$70,000	\$ 7,000
2. Data Processing and Laboratory Analysis	56,000	13,000
3. Health Effects Monitoring (pulmonary function testing, mutagen screening, symptom study)	39,000	4,000
4. Data Analysis	27,000	54,000
5. Administration, Report Writing, Publications	<u>31,000</u>	<u>49,000</u>
TOTAL	\$223,000	\$127,000

## Present Status of Projects on the Biological Control of Weeds with Insects and Plant Pathogens in the United States and Canada<sup>1</sup>

R. D. GOEDEN, L. A. ANDRES, T. E. FREEMAN  
P. HARRIS, R. L. PIENKOWSKI, and C. R. WALKER<sup>2</sup>

Abstract. Weed species or genera previously and currently targeted for biological control with phytophagous insects or phytopathogens in the United States (including Hawaii) and Canada are listed. The current status of and natural enemies

involved in national, federal, state, and university biological control projects are reported.

Table 1 reviews the status of biological weed control projects involving the use of phytophagous insects and plant pathogens in the United States, including Hawaii, and Canada through 1973. Much of these data were derived from unpublished sources, but status reports and key references for longer-standing projects also were included to allow as complete an accounting of the present status of this aspect of Weed Science as possible. All biological control agents listed by species in Table 1 are phytophagous insects, indicative of their preponderant use in biological weed control to date. Phytopathogens have only recently received serious consideration as biological weed control agents in North America. Their application in weed control to date has been largely unplanned and fortuitous or experimental and limited in scope (41, 42).

<sup>1</sup> Received for publication March 18, 1974. This report was prepared by the 1973 Biological Control of Weeds Committee (Special) of the Weed Science Society of America.

<sup>2</sup> Committee Chairman & Assoc. Prof., Div. of Biol. Contr., Univ. of California, Riverside, CA 92502; Location Leader, Biol. Contr. of Weeds Lab., ARS U.S. Dep. of Agr., Albany, CA 94706; Prof., Dep. of Plant Path., Univ. of Florida, Gainesville, FL 32611; Res. Scientist, Regina Res. Sta., Canada Dept. Agr., Regina, Saskatchewan, S4O 3A2; Prof., Dep. of Entomology, Virginia Polytech. Inst. & State Univ., Blacksburg, VA 24061; and Chief, Branch of Pest Contr. Res., Fish & Wildlife Serv., BSD&W-USDI, Washington, DC 20005, respectively.

Table 1. Present status of projects on the biological control of weeds in the United States and Canada.

Target Weed	Present status of project <sup>a</sup>	Biological control agent(s) involved	U.S. and Canadian research unit(s) involved <sup>b</sup>	Key reference(s)
1. <i>Allium vineale</i> L. (wild garlic)	A,B		VPI*	
2. <i>Alternanthera philoxeroides</i> (Mart.) Griseb. (alligatorweed)	F	<i>Agasicles hygrophila</i> Selman & Vogt	USDA(F)(C)	2,8,33,42
	F	<i>Amynothrips andersoni</i> O'Neill	USDA(F)(C)	
	F	<i>Vogtia malloi</i> Pastrana	USDA(F)(C)	
	B,C,D,	plant pathogens	UF	
3. <i>Ambrosia artemisiifolia</i> L. (common ragweed)	A,B		CDA*, VPI	25
4. <i>Ambrosia psilostachya</i> DC. (western ragweed)	A,B		UCR	
5. <i>Ambrosia trifida</i> L. (giant ragweed)	A,B		VPI	
6. <i>Artemisia absinthium</i> L. (absinth wormwood)	A,B		CDA	
7. <i>Cerdaria drabe</i> (L.) Desv. (hoary cress)	A,B		CDA*, USDA(C)	
8. <i>Carduus acanthoides</i> L. (plumeless thistle)	C,E	<i>Cassida rubiginosa</i> Müller	VPI	27,38,43
	D	<i>Ceuthorrhynchidius horridus</i> Panzer	VPI	
	F	<i>Rhinocyllus conicus</i> Froelich	CDA, VPI	
9. <i>Carduus nutans</i> L. (musk thistle)	C,E	<i>Cassida rubiginosa</i>	VPI	27,38,43
	D	<i>Ceutorhynchus trimaculatus</i> F.	USDA(C)	
	D	<i>Ceuthorrhynchidius horridus</i>	VPI	
	D	<i>Psylliodes chalcamera</i> Illiger	USDA(C)	
	F	<i>Rhinocyllus conicus</i>	CDA, USDA(C), VPI	
10. <i>Carduus pycnocephalus</i> L. (Italian thistle)	D	<i>Ceutorhynchus trimaculatus</i>	USDA(C)	21
	D	<i>Psylliodes chalcamera</i>	USDA(C)	
	F	<i>Rhinocyllus conicus</i>	UCR, USDA(C)	

Table 1. (Cont.)

Target Weed	Present status of project <sup>a</sup>	Biological control agent(s) involved	U.S. and Canadian research unit(s) involved <sup>b</sup>	Key reference(s)
33. <i>Eupatorium riparium</i> Regel. (river eupatorium)	E	<i>Oidaematophorus</i> sp.	HDA	
34. <i>Euphorbia cyparissias</i> L. (cypress spurge)	F	<i>Hyles euphorbiae</i> (L.)	CDA	23
35. <i>Euphorbia esula</i> L. (leafy spurge)	E	<i>Hyles euphorbiae</i>	CDA, USDA(C)	23
	E	<i>Chamaespheria empiformis</i> (Esper)	CDA	
36. <i>Halogeton glomeratus</i> M. Bieb.) C. A. Mey. (halogeton)	D	<i>Oberca</i> sp.	CDA	29
	E	<i>Coleophora parthenica</i> Meyrick	USDA(C)	
37. <i>Hypericum perforatum</i> L. (St. Johnswort)	G	<i>Agrilus hyperici</i> Cruetzer	CDA, UCB, USDA(C)	11,12,30,35
	G	<i>Chrysolina hyperici</i> Forster	CDA, HDA, UCB, USDA(C)	
	G	<i>Chrysolina quadrigemina</i> (Suffrain)	CDA, HDA, UCB, USDA(C)	
	G	<i>Chrysolina varians</i> Schall	CDA, UCB, USDA(C)	
38. <i>Hydrilla verticillata</i> (L.) fil.) Presl. (hydrilla)	B,C,D	<i>Zeuxidiplosis giardi</i> (Kieffer)	CDA, HDA, UCB, USDA(C)	42
	B,C,D	plant pathogens	UF	
39. <i>Ipomoea hederacea</i> (L.) Jacq. (ivyleaf morning glory)	A,B		USDA(F)	
40. <i>Ipomoea purpurea</i> (L.) Roth (tall morning glory)	A,B		VPI*	
41. <i>Lantana camara</i> L. (lantana)	F	<i>Aerenicopsis championi</i> Bates	HDA	2,10,12,14,15
	E	<i>Apion</i> sp.	HDA	
	E	<i>Blepharomastix acutangulalis</i> (Snellen)	HDA	
	F	<i>Catabena esula</i> Druce	HDA	
	E	<i>Diastema tigris</i> Guénée	HDA	
	F	<i>Cremastobombycia lantanella</i> Busck	HDA	
		<i>Epinota lantana</i> (Busck)	HDA	
	F	<i>Eutreta xanthochaeta</i> Aldrich	HDA	
	E	<i>Evander xanthomelas</i> Guerin	HDA	
	E	<i>Hepialus</i> sp.	HDA	
	E	<i>Hypena strigata</i> (F.)	HDA	
	F	<i>Leptobyrsa decora</i> Drake	HDA	
	E	<i>Octotoma gundlachi</i> Suffrain	HDA	
	E	<i>Octotoma plicata</i> (F.)	HDA	
	F	<i>Octotoma scabripennis</i> Guerin	HDA	
	F	<i>Ophiomyia lantanae</i> Foggatt	HDA	
	F	<i>Plagiohammus spinipennis</i> Thomson	HDA	
	F	<i>Platyptilia pusillidactyla</i> (Walker)	HDA	
	F	<i>Strymon baxochii gundlachianus</i> (Bates)	HDA	
	F	<i>Strymon echion</i> (L.)	HDA	
F	<i>Syngamia haemorrhoidalis</i> Guénée	HDA		
F	<i>Teleonemia scrupulosa</i> Stål	HDA		
E	<i>Teleonemia vanduzeei</i> Drake	HDA		
E	<i>Tephroclystis</i> sp.	HDA		
F	<i>Uroplata girardi</i> Pic	HDA		
42. <i>Linaria dalmatica</i> (L.) Mill. (Dalmatian toadflax)	E	<i>Calophasia lunula</i> (Hufnagel)	CDA, USDA(C)	24
	D	<i>Stagmatophora serratella</i> Treitschke	USDA(C)	
43. <i>Linaria vulgaris</i> Mill. (yellow toadflax)	E	<i>Calophasia lunula</i>	CDA	24



Table 1. (Cont.)

Target Weed	Present status of project <sup>a</sup>	Biological control agent(s) involved	U.S. and Canadian research unit(s) involved <sup>b</sup>	Key reference(s)
66. <i>Silene cucubalus</i> Wibel (bladder campion)	F,G D	<sup>1</sup> <i>Tyria jacobaeae</i> L. <i>Cassida hemisphaerica</i> Herbst.	CDA, USDA(C) CDA	
67. <i>Silybum marianum</i> (L.) Gaertn. (milk thistle)	F	<i>Rhinocyllus conicus</i>	UCR, USDA(C)	21,28
68. <i>Solanum carolinense</i> L. (horsenettle)	A,B		VPI	
69. <i>Solanum elaeagnifolium</i> Cav. (silverleaf nightshade)	B,C		UCR*	19
70. <i>Sonchus arvensis</i> L. (perennial sowthistle)	D	<i>Tephritis dilacerata</i> Loew	CDA	
71. <i>Sorghum halepense</i> (L.) Pers. (Johnsongrass)	A,B		USDA(C), VPI*	
72. <i>Striga lutea</i> Lour. (witchweed)	C,D C,D	<i>Eulocasta argentisparsa</i> Hampson <i>Eulocasta undulata</i> Snellen	USDA(C) USDA(C) USDA(C)	37
73. <i>Tamarix pentandra</i> Fall. (saltcedar)	B,C			
74. <i>Taraxacum officinale</i> Weber (common dandelion)	A		CDA	
75. <i>Tribulus cistoides</i> L. (Jamaica feverplant)	F F	<sup>1</sup> <i>Microlarinus laerynii</i> (Jacquelin du Val) <i>Microlarinus lypriformis</i> (Wollaston)	HDA HDA	13,15
76. <i>Tribulus terrestris</i> L. (puncturevine)	F F	<i>Microlarinus laerynii</i> <i>Microlarinus lypriformis</i>	HDA, UCB, UCR, USDA(C)(M) HDA, UCB, UCR USDA(C)(M)	2,13,15
77. <i>Ulex europaeus</i> L. (gorse)	F F	<sup>1</sup> <i>Apion ulicis</i> (Forster) <i>Apion scutellare</i> Kirby	HDA, USDA(C) HDA	14,31
78. <i>Verbascum</i> spp. (mullein)	B,D	<i>Cucullia verbasci</i> L.	CDA	

<sup>a</sup>Project phases adapted from scheme of Harris (22): A = determine suitability of weed for biological control, B = survey natural enemies, C = determine ecology of selected natural enemies, D = determine safety of natural enemies for release, E = establish natural enemies, F = determine effect on weed, G = project complete.

<sup>b</sup>CDA = Canada Dept. Agr.; HDA = Hawaii Dept. Agr.; TT = Texas Tech. Coll., Lubbock, TX; UCB = Univ. of California, Berkeley, CA; UCR = Univ. of California, Riverside, CA; UF = Univ. of Florida, Gainesville, FL; USDA = U.S. Dept. of Agr., Agr. Res. Serv., at (C) Albany, CA, (F) Gainesville or Ft. Lauderdale, FL, (M) Stoneville, MS; VPI = Virginia Polytech. Inst. & St. Univ., Blacksburg, VA. Inactive projects on which work has been suspended for temporary logistic, budgetary, or other reasons are marked with an asterisk (\*).

## ACKNOWLEDGMENT

The authors gratefully acknowledge the data for Hawaiian projects furnished by Harry Nakao, Deputy Chief, Entomology Branch, State of Hawaii, Dept. of Agr., Honolulu.

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April 3, 1979

Members of the Senate Finance & Claims Committee

Matt V. Himsel, Chairman

Dear Senators,

I am writing on behalf of the Montana State Grange to request that the committee fund HB 410 providing for continuation of the Biological Weed Control Research program being carried out at Western Research Experiment Center at Corvallis.

Since bugs must be tested to determine whether they will survive and control the weeds they are intended to control in Montana conditions, it is extremely important that the State maintain a research capacity in weed control. The cost of that program is minimal when compared to the cost of weeds to farm and ranch operations.

Since a chemical that will control a particular weed sometimes is found to pose a threat to other life forms including the health of the applicator, and since weeds are often perpetuated in areas that are inaccessible to chemical control even when the chemical agent is not a threat, continued emphasis should be placed on seeking biological control of weeds.

The Grange believes that irregardless of any possible money available to the State for carrying out biological weed control with already tested biological agents, the need for some research will continue, and therefore believes that the State must maintain research capacity to insure the success of biological weed control.

We respectfully request your approval of funding for HB410.

Respectfully submitted,

Jack Iman, Master

*Judith Basin County*  
*Weed Control District*

Court House  
*Stanford, Montana*

April 5, 1979

Gentlemen:

We, the people of Montana, are in trouble. Leafy Spurge is a weed that is taking over Montana and cannot be controlled by chemicals. It is in our pasture lands, crop lands, forests and is also invading our cities.

The State of Wyoming allocated 1.4 million dollars in the 1977 legislature for the chemical eradication of leafy spurge.

We hope we don't have to follow suit but if things keep going like they are, our costs will be worse than those of Wyoming.

Our farmers and ranchers are already spending thousands upon thousands of dollars trying to control leafy spurge, but it is to no avail. It is estimated that they are already spending over a million dollars a year.

House Bill 410 provides for a more permanent solution to leafy spurge eradication.

Biological control of leafy spurge will give us a means of control that could be self-supporting in time and greatly reduce the number of dollars spent on weed control.

Thank you for your cooperation.

Sincerely,

*Wm. Reilly*

Wm Reilly  
Weed Supervisor  
Judith Basin County

WR/jmp

*20,000 acres in J. B Co*  
*35,000 " " Fergus*

# MISSOULA CITY-COUNTY HEALTH DEPARTMENT

301 WEST ALDER STREET

MISSOULA, MONTANA 59801

April 5, 1979

Senate Finance and Claims Committee  
Montana State Legislature  
State Capitol  
Helena, Montana 59601

I would strongly urge your consideration and support of the House Bill 273, Montana Air Pollution Study (MAPS).

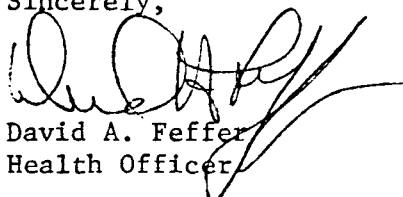
The MAPS program in the past year and a half has allowed the collection of monitoring and emission data. This information has greatly facilitated defining the problems and creating control strategies to "clean-up" Missoula's air quality problem.

The meteorological and monitoring data accumulated will not only contribute significantly to computer modeling of winter air stagnation periods in the Missoula Valley, but will also aid in achieving National Air Quality Standards.

Although MAPS has created a much better understanding of the kinds and sources of air pollutants, there is still a tremendous need to continue data collection and analysis.

I support this funding for the future health of Montanans

Sincerely,



David A. Feffer  
Health Officer

DAF:lr

# MISSOULA CITY-COUNTY HEALTH DEPARTMENT

301 WEST ALDER STREET  
MISSOULA, MONTANA 59801

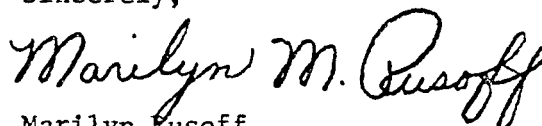
April 5, 1979

Senate Finance and Claims Committee  
Montana State Legislature  
State Capitol  
Helena, Montana 59601

The Missoula City-County Board of Health strongly urges your favorable consideration of the funding request to complete the Montana Air Pollution Study. Much progress has been achieved in the past year and a half, but important work remains to be done.

For the health of Montanans now and in the future, we support this funding.

Sincerely,



Marilyn Rusoff  
Chairperson

Missoula City-County Board of Health

MR:lr

Senate Finance and Claims Committee  
State Capitol  
Helena, Montana 59601

April 4, 1979

Sirs:

House Bill 273, the Montana Air Pollution Study (MAPS) bill, deserves your consideration and support, I submit, for the following reasons:

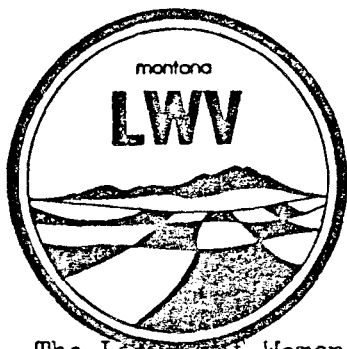
1. MAPS will aid in achievement and maintenance of ecosystem and economic system balance. It will help replace a simplistic dichotomy between jobs and environment with a better understanding of the tradeoffs necessary between the two, upon which more rational planning and development decisions can be made in Helena and elsewhere.
2. MAPS is good science and public health. It will provide much-improved understanding of the kinds and sources of air pollutants, their distribution and mix (i.e., their meteorology), and their health effects. Merits of MAPS have been recognized implicitly by requests for information and results of it from several places, including internationally.
3. MAPS needs completion of its data-collecting and -analyzing beginnings, in order to obtain maximum value from its initial phase. In economic terms, marginal returns will be great from an additional, relatively small, investment in MAPS.

I support MAPS and hope that you will be able to do so.

Sincerely,

*Walter Koostra*

Walter Koostra, member, Missoula City-County Board of Health  
908 Stephens Avenue  
Missoula, Montana 59801



HB 273

Montana Air Pollution Study

The League of Women Voters of Montana supports HB 273. The League has long favored studies which result in concrete evidence, and not probabilities, on which to base decisions. We all need to know to what extent pollution affects our health and well-being. Because interest has been high, and they are more directly involved, our League group in Missoula asked to write the testimony on this bill. They have written the following:

Data has been collected which needs more time and money to be analyzed.

Great Falls children live where winds do not allow inversions to occur while Missoula children live in an airshed which has inversions. The pilot study of the first year showed that there is a 10% difference in lung capacity test results between Great Falls and Missoula children. However further testing needs to be done before these preliminary results can be considered final and valid.

The results from the study thus far have been surprising. If further testing bears out the preliminary results, the Health Department owes the people of Montana further exploration. Dr. Kit Johnson, the Health Effects Project Officer for the Montana Air Pollution Study, uses the analogy of a well clinic — if the patient is healthy, they send him away; if the patient shows symptoms of illness, they do more tests to discover the cause. If no correlation had been found between health and air pollution, further funding would not be requested.

The Health Department would like to see a return on the investment in equipment. Sophisticated air monitoring stations have been established which are providing valuable information on amounts and sources of pollution. Even though MAPS funding started July 1, 1977, equipment necessary to measure the type of particulate that medical science has found damaging to lung function was just becoming available. It was not possible to have this equipment on line in Missoula until the end of September 1978. The correlation of measurements of the damaging particulate with the results of the lung function tests is a basic part of the study. Again, the funding is needed to continue the measuring and correlation. Also, it would be possible to supplement the pulmonary function studies with a symptom study. This would give much more information on the effects of air pollution.

If no further funds are provided, much time and effort will have been wasted as well as not yet analyzed data. No earlier study has been of such duration or thorough enough to be established as valid, and this has largely been due to lack of funding. We again urge that you continue the funding for this project.

Alice Austin  
Environmental Quality Chairman  
League of Women Voters of Missoula



MONTANA AIR POLLUTION STUDY  
MUTAGEN SCREENING IN ANACONDA AND BUTTE

Forward

The third major health component of the Montana Air Pollution Study (MAPS), besides the pulmonary function testing and the statistical studies of existing mortality and morbidity data, is a mutagen screening program using the Ames test. Mutagens are substances capable of causing mutations in genetic material, and the Ames test is a microbiological procedure that measures mutagens as a presumptive indicator of carcinogenicity. The Ames test is used frequently as a screening procedure by which drugs, industrial chemicals, food additives and other similar substances can be checked for carcinogenicity more cheaply than through extensive animal testing.

Under the MAPS project, geneticists at Montana State University (MSU) have applied the Ames test to human populations and to air samples. The use of the Ames test to survey human populations rather than to screen chemicals is an innovative approach; unfortunately, it has detected mutagenic substances in the children's urine samples studied. This presumably indicates that the children are being exposed to such substances somewhere in their environment. Preliminary analyses of air samples with the Ames test also indicate that there is significant carcinogenic activity in the collected particulate matter, but it is not clear that this is necessarily related to the urine test results. These initial results are discussed in greater detail below.

Analysis of School Children's Urine

Urine samples for analysis using the Ames test were collected at Monroe

School in Butte from forty-seven third and fourth grade volunteers on May 17, 1978. The sampling was repeated the following day at Lincoln School in Anaconda, where samples were collected from forty-three third and fourth grade volunteers. The MSU researchers selected this particular group of elementary school children because the age of the children is low enough to restrict the number of smokers as well as to eliminate the effects of occupational exposure to environmental mutagens. Parents of the children were also requested to complete questionnaires pertaining to the type of home heating system used, smoking habits in the home, occupation, obvious sources of air pollution exposure, and an impression as to the incidence of cancer in the person's neighborhood during the previous five years.

Preliminary results indicate that the children living in Butte excrete more mutagens, or substances capable of causing cellular mutations, than do the children living in Anaconda. The results show that the mean level above laboratory background for the Butte children is 14.6, while the level for Anaconda is only 6.3. Due to the small number of children sampled, this result is difficult to interpret. However, the Butte sampling is two times greater than background; if the statistical treatment described by Doctor Barry Commoner, Washington University, St. Louis, Missouri, is applicable, then it would be considered a positive result. It is not clear at this time whether any of the children sampled are smokers. However, the child's urine sample giving the highest level of mutagenicity is not as high as either a pipe smoker who inhales or a smoker who smokes three packs of cigarettes daily.

Among the children sampled in Butte, there are at least six significantly high samples, while there are none in Anaconda.\* From the data generated,

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\*It should be noted that during the sampling of the Anaconda children on May 18, 1978, the Anaconda Copper Smelter was completely shut down for repairs and had been for at least two weeks.

it appears that the Butte children with the highest mutagen levels live near Front Street, a major east-west thoroughfare that runs parallel to the Burlington Northern railroad tracks. The children who reside further from Front Street have lower levels of mutagens, although the Butte samples remain generally higher than all of the Anaconda samples.

In order to determine if the Monroe School sampling indicates a unique phenomenon, or if the effect is evident throughout the area, the Department gathered seventy-four (74) additional urine samples at the Emerson School, located south of Front Street and the railroad tracks. Monroe School is located north of Front Street and the tracks. The sampling took place on October 23, 1978, at Emerson School. A repetition of the May sampling at Monroe School in Butte and Lincoln School in ANaconda also took place on October 24 and 25, respectively. Results of the fall sampling in Anaconda and Butte, as well as of an additional sampling in Bozeman in January for use as a comparison population, should be of value for three reasons. First the Department should be able to determine whether the high mutagen levels found in the Monroe School children represent a unique or a city-wide phenomenon. Second, the October sampling at the Lincoln and Monroe Schools should assist the Department in determining whether exposure to environmental mutants varies between the spring and autumn seasons. Third, the sampling in Bozeman should help in determining whether mutagenic levels differ between a relatively non-polluted rural community (Bozeman) and a heavily industrialized area (Anaconda-Butte).

#### Analysis of Air Filters

Parallel to the urinalysis discussed above, the researchers from the Chemistry Department laboratories at MSU are also analyzing atmospheric

pollutants impinged on air filters for the presence of mutagens. The process of extracting potentially carcinogenic materials from the filter paper without destroying the materials has proved to be difficult. It is still a research-level problem, and MSU is one of the few locations in the United States where such work is being conducted successfully.

Results from the few samples analyzed during the refinement of laboratory extraction techniques have been positive, that is, they have shown the presence of carcinogenic materials in the air. Air filter samples from Anaconda, Butte, East Helena, and Missoula have been analyzed for mutagenicity using the Ames test. Early results indicate that the air in both Butte and Missoula show mutagenicity. These two cities were higher than were either Anaconda or East Helena. Analysis of the Anaconda Highway Junction air filters revealed that the presence of arsenic, a by-product of the smelting industry, depresses mutation in the Ames test. Therefore, it is possible that the presence of arsenic in Anaconda and East Helena, due to their respective smelting activities, may account for the lower mutagen levels in those communities.

## SUMMARY OUTLINE OF THE MAPS PROJECT

The Montana Air Pollution Study (MAPS) was proposed in response to concern over high death rates from a variety of lung and respiratory ailments in several areas of Montana known to have significant air pollution problems. In Missoula County, for example, the death rate from chronic obstructive pulmonary disease (emphysema, chronic bronchitis, and asthma) was found to be 49 percent above the national average. In Deer Lodge and Silver Bow Counties, the lung cancer death rate was nearly twice the national average. Both men and women suffered the elevated death rates; on-the-job pollution exposure was ruled out as a primary cause.

The main purpose of MAPS is to determine how air pollution is affecting the health of people in Montana. The Legislature funded the MAPS proposal with \$1.07 million for two years and specified that health effects studies should be performed in Anaconda, Billings, Butte, Missoula, Columbia Falls, Colstrip, East Helena and Hardin. Bozeman and Great Falls were added to provide data from relatively unpolluted areas for comparison with data from the other areas.

It was decided that the MAPS undertaking should mesh with the normal activities of the Air Quality Bureau. In this way, MAPS could help upgrade the capacities of the Bureau while pursuing its own relatively short-term goal of researching the health effects of air pollution. Upon termination of MAPS, the Bureau will take over the equipment bought by MAPS and will benefit from the MAPS expansion and refinement of the Bureau's computer system.

Management of MAPS is provided by a team from the Air Quality Bureau, with assistance from outside consultants. Most of the field work is done by MAPS contract employees hired especially for the purpose. The MAPS activities fall into several categories, as discussed below.

### Air Quality Monitoring

One of the major goals of MAPS is to provide a comprehensive data base on the concentration of pollution in the ambient air. Toward this end, MAPS has cooperated with the Bureau in expanding air quality monitoring systems in the study cities. A major part of this expansion was the installation and operation of four air monitoring stations obtained from the Environmental Protection Agency (EPA) in St. Louis. These stations consist of a trailer containing instruments for monitoring ambient air concentrations of nitrogen dioxide, sulfur dioxide, ozone, particulates, and in some cases hydrocarbons. Particulate samples from the sites are routinely analyzed for sulfate, nitrate, and trace metals.

The four monitoring stations have been installed in Anaconda, Billings, Butte, and Missoula, where they supplement equipment already in use by the Air Quality Bureau. The monitoring stations were obtained at virtually no cost, with the only expense being for transportation from St. Louis, maintenance and operation.

Another important type of monitoring instrument obtained by MAPS is the so-called dichotomous sampler, which allows determination of the amount and composition of particulate material small enough to be breathed into the deep lung. This is important because the health hazard presented by particulate matter depends primarily on what it consists of and whether it can be breathed into the lung. Ten of the samplers were bought for \$3,500 each. There was some difficulty obtaining these instruments, because they had only recently been introduced into the market and were scarce. They were considered essential to the project, however, and were obtained after a persistent search.

Two of the samplers were installed in Butte, one in Anaconda, three in Missoula, one in Billings, one in the Billings suburb of Lockwood, and one in Great Falls. Another is moved among Bozeman, East Helena, Colstrip, and Hardin to follow the health effects research being conducted in those cities.

### Meteorological Monitoring

MAPS has significantly expanded the normal capacity of the Air Quality Bureau for gathering meteorological data. This type of data is essential in developing and adopting computer-aided models which can help predict what ambient concentrations would result from the emission of a given amount of pollution in a given place.

The potential for pollution concentration in any given area is determined in part by topography, which influences wind patterns which in turn affects air movements. The mountainous terrain of western Montana contributes to complex wind variations, the effects of which can be predicted only by mathematical models tailored especially for a given site. In order to make such modeling possible, the MAPS project acquired and installed several different types of meteorological monitoring devices.

Wind speed and direction indicators were installed in Anaconda, Billings, Butte and Missoula, to provide wind data to supplement that already obtained by the Air Quality Bureau at these and other sites. Each of these sites also monitors solar radiation, airborne particulate, and relative humidity.

Each major study city also has an upper air monitoring program. These studies use balloons and attached radiosondes to measure upper air temperatures and winds. An acoustic radar is used to monitor atmospheric temperature inversions.

MAPS has purchased only one of the \$10,000 acoustic radar monitors, but has made cooperative agreements to analyze the data from other such monitors operated by the U.S. Forest Service, the Anaconda Company, and the Montana Energy Research and Development Institute (MERDI) in Butte.

### Health Effects Studies

There are three major parts to the MAPS health survey program. These are: 1) statistical analysis of existing data, 2) a major pulmonary function testing program, and 3) a mutagen screening program.

The existing data analyzed pertains to respiratory ailment death rates, hospitalizations and visits to physicians. Studies of this type are relatively poor indicators of the health impacts of air pollution, because they tend to show only the most severe responses. However, they use data already available and thus are inexpensive.

The data analyzed was from the Department of Health's vital statistics records. Further, two studies of respiratory ailment occurrence are being performed, one through a review of hospitalization records statewide, and the other through documentation of visits to physicians at a Missoula clinic.

The death rate (mortality) study, investigates the possible causes of respiratory disease death rates in Deer Lodge, Lake, and Silver Bow Counties. Relatives of persons who died of lung cancer, chronic respiratory diseases, strokes are being interviewed to provide information on the smoking habits, occupation, and residence of the victims.

Data from the review of hospitalization and physician consultation cause will be compared to ambient air conditions to determine what effect air pollution is having on victims of respiratory ailments.

The largest portion of the health study is the pulmonary function test (PFT), which measures the lung function efficiency of school children and respiratory patients. Study participants are asked to blow into a tube which is attached to a machine called a spirometer, which produces a graph showing how much air was expelled in what period of time. Given this information, it can be determined how well the lungs are functioning. Decreases in the lung efficiency over a period of years indicates that the lungs have suffered a type of damage commonly associated with certain types of air pollutants, such as fine particulates, sulfur dioxide, and oxides of nitrogen. These effects are known to occur elsewhere, and MAPS is committed to determining whether air pollution in Montana is severe enough to cause them here.

There are three studies within the pulmonary function testing program. The first of these compares the lung function of children in the study cities. This portion of the study is based on third and fourth grade school children who are tested three times a year in the larger cities and once a year in the smaller study areas. The goal of this portion of the study is to determine whether children from towns where the air is relatively clean have better pulmonary function than children from towns with dirtier air. In Missoula the study has been expanded to measure the lung function of fourth and fifth grade children, who were tested during the project's first year. This portion of the test is to determine whether children from relatively unpolluted towns maintain better lung function than those from areas with relatively polluted air.

The last portion of the pulmonary function testing study measures the association of air pollution with health effects on approximately eighty victims of chronic obstructive pulmonary disease, which includes emphysema, chronic bronchitis, and asthma. Studies elsewhere indicate that persons with these ailments are among the most sensitive to air pollution, and thus the first to experience noticeable lung function deterioration in polluted air. This portion of the study is believed to offer the best chance of relating short-term ambient pollution concentrations to effects on pulmonary function.

Another major component of the health effects study is the mutagen screening program. This program uses a laboratory test to detect mutagens in the urine of school children. Mutagens are chemical agents capable of damaging genetic material and are known to be associated with cancer-causing substances. Such substances can enter the body from air pollution or other contaminants in the environment.

### Emission Inventory Activities

The MAPS project includes two major emission inventory efforts. The first of these is a major expansion and improvement of the Air Quality Bureau's basic inventory of how much of what pollutants are being emitted where and when by whom.

The second emission inventory effort is an attempt to correlate various pollution conditions with the results of the pulmonary function testing in Missoula. The data comes primarily through the Missoula County air pollution control personnel, who gather information on the pollution emission of various sources, including dusty roads and open burning. The wood products industry, the major industrial pollution sources in the area, provides daily production data. Other potential pollution influences, such as temperature data which could cause increased emissions from home space heaters, will be included in the analysis. Meteorological conditions also will be considered.

### MAPS Results

One result of MAPS shows that Missoula children have significantly poorer pulmonary function than Great Falls children. The differences are small, but quite significant, because of the large numbers of children sampled. It is thought that this may relate to the relatively higher air pollution concentrations in Missoula than in Great Falls. The significance of this effect on the children's health requires further analysis.

The mutagen screening portion of MAPS determined that some children in Butte and Anaconda have significant concentrations of cancer-causing substances in their urine. Further testing shows that air pollutants from the same area also contain cancer-causing agents. Whether the children absorbed these substances from the air remains to be determined, and further study is deemed essential.

Results in other portions of MAPS await analysis of data already collected.



April 8, 1979

Senate Finance and Claims Committee  
State Capitol  
Helena, Montana 59601

Mr. Chairman and members of Senate Finance and Claims Committee:

I wish to testify this morning on HB 849 as a former legislator in 1977-1978. This bill came about as a result of HB 2794 which was passed by the Kansas Legislature in 1978. As a result they created an Agricultural Grain Marketing Committee "to contact and meet with representatives of other major agricultural grain producing states of the United States for the purpose of conducting a comprehensive and continuing study and investigation of agricultural grain marketing practices, procedures and controls and their relationship to and effect upon the agricultural economies of the participating states and making recommendations for the correction of weaknesses or solutions to problems in the present system or the development of alternatives thereto."

The State of Montana was contacted and several state legislators were asked to attend. No one did although I started to Wichita Kansas in December to represent Montana but due to mechanical trouble at Billings I was forced to cancel my trip.

I received all of the information developed from this committee and was fortunate to have members of this legislature sponsor HB 849 which is before you today. Farmers as a whole feel the present marketing system is not working and they want changes. It is felt the Federal government through boycotts, embargoes, and in-action to prevent railroad and dock strikes along with perennial car shortage's has failed.

The compact could investigate the speculative short selling of "paper grain" which is confusing the markets regarding the actual amount of grain available for world consumption. We wonder if the ~~five~~ major multi national grain companies constitute a monopoly in world trading as they buy and sell from all countries and use their power to hold down prices. They make as much when prices are low as when they are high as their margin is on bushel volume.

On the state scene in the Great Plains, Agriculture is a concern of State Governments. The level of tax revenue reflects the economic health of agriculture - the economic base of most states.

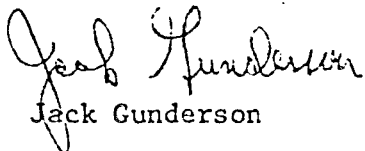
Therefore, I feel it is of utmost importance that State Governments take an interest in the problems of Agriculture. Actions of one state will have little influence, but a joint effort can lead to problem solving.

A State Compact can address the problems of transportation, of the effect of an unstructured commodity market system. A State Compact could address the impact of continuous all-out agricultural production on our land, and energy resources and its price depressing effect. There is a point of deminishing returns for producers.

From such deliberations a united voice can rise from our legislative assemblies to focus attention on Agriculture's problems at the Federal level as well.

In 1978 Montana produced 146,050,000 million bushels of wheat. We produced 56,375,000 bushels of barley. If we could raise the price of these two commodities by only 1¢ per bushel it would mean \$2,024,250.00 additional income to Montana producers. I think \$50,000.00 in general fund moneys would be repaid in increased tax revenue many times over.

I hope you and your committee will support the bill and the appropriation. This is a new approach to solve farm marketing problems. I think we owe it to our farmers to at least give it a try.

  
Jack Gunderson

AMENDMENTS TO HB 125

Rep. Reichert

1. Page 2, line 15

Following: line 14

Insert: (5) "State expenditures" means the total amount of money generated from state resources that is spent by any agency of state government, excluding:

- (a) money received from the federal government;
- (b) payments of principal and interest on bonded indebtedness;
- (c) payments for unemployment or disability insurance;
- (d) money received from the sale of a good or service provided that the purchase of the good or service is discretionary;
- (e) money received from permanent endowments, trusts, or pension funds;
- (f) proceeds of gifts or bequests made for purposes specified by the donor;
- (g) money appropriated for tax relief; and
- (h) funds transferred within state government or used to purchase goods for resale.

Section 4. State surplus to revenue sharing program.

- (1) Seventy-five percent of the amount by which state revenue exceeds state expenditure during any fiscal year must be transferred at the end of the fiscal year to a revenue-sharing account in the earmarked revenue fund, which account is hereby established.
- (2) Money in the revenue-sharing account may be allocated by appropriation for distribution under the state-local revenue sharing program established in [section 5]."

Renumber subsequent sections.

2. Page 3, line 11

Following: "reduce"

Strike: "their"

Insert: "the"

Following: "taxes"

Insert: "on residential property"

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# Montana Legislative Council

State Capitol  
Helena, 59601

(406) 449-3064

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March 27, 1979

TO: Senate Taxation Committee

FROM: Teresa Olcott Cohea *THC*

RE: HB 125

As Senator Turnage requested, I have prepared the following brief analysis of HB 125.

Purpose of Bill

This bill would establish a mechanism for allocating state revenue collected from sources other than property taxation to counties and municipalities.

Method of Allocation

Revenue-sharing money would be allocated on the basis of population, as shown in federal census figures or estimates.

In determining county populations, city residents in the county would be excluded. The minimum allocation to any local government would be \$200 per year. The Department of Community Affairs would allocate the money to each jurisdiction.

Use of Revenue-Sharing Funds

HB 125 provides that revenue-sharing funds may be used for the local government units' "best interests" as determined by its governing body:

A House amendment also provides that local government units receiving revenue-sharing funds "will reduce their property taxes accordingly".

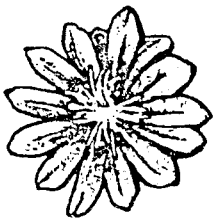
Appropriation

HB 125 does not appropriate any money for revenue-sharing. It would only have created the mechanism if funds were made available in the future.

Proposed Amendment

Representative Reichert proposed an amendment to the House Local Government Committee that would place 75% of the state surplus each fiscal year in a revenue-sharing account. The legislature would appropriate funds from this account to the revenue-sharing program for distribution.

The amendment defines the state surplus funds as the amount by which state revenue exceeds state expenditures. State expenditures are defined to exclude federal funds, inter-government transfers, etc.



BITTERROOT CONSERVATION DISTRICT

111 OLD CORVALLIS ROAD  
HAMILTON, MONTANA 59840  
(406) 363-5010  
April 4, 1979



Senator Matt Hims1  
Senate Finance and Claims  
Capitol Station  
Helena, Montana 59601

Dear Senator Hims1,

We of the Soil Conservation Service Board of Supervisors of the Bitterroot Conservation District would like to re-affirm our strong support for the passage of HB-410.

Biological weed control is a positive step in addressing a growing problem. The biological approach to controlling weeds will provide for a new weed control technique, and aid in bringing factions together who have historically disagreed as to method of control.

We ask, as a board, that you do pass HB-410.

Thank You.

Sincerely,

Bitterroot Conservation District  
Leonard G. Peterson, Chairman