

## **MINUTES**

### **MONTANA SENATE 52nd LEGISLATURE - REGULAR SESSION**

#### **COMMITTEE ON NATURAL RESOURCES**

[ 8 A.M. ]

**Call to Order:** By Lawrence Stimatz, on March 27, 1991, at 3 p.m.

#### **ROLL CALL**

##### **Members Present:**

Lawrence Stimatz, Chairman (D)  
Cecil Weeding, Vice Chairman (D)  
John Jr. Anderson (R)  
Esther Bengtson (D)  
Don Bianchi (D)  
Steve Doherty (D)  
Lorents Grosfield (R)  
Bob Hockett (D)  
Thomas Keating (R)  
John Jr. Kennedy (D)  
Larry Tveit (R)

**Members Excused:** None.

**Staff Present:** Gail Kuntz (EQC).

**Please Note:** These are summary minutes. Testimony and discussion are paraphrased and condensed.

**Announcements/Discussion:** None.

#### **EXECUTIVE ACTION ON HB 380**

##### **Motion:**

Senator Keating made a motion that HB 380 BE NOT CONCURRED IN.

##### **Discussion:**

Chairman Stimatz told the committee there had been an editorial in the Montana Standard on March 27 regarding the Berkeley Pit. Chairman Stimatz stated that the history of the Environmental Protection Agency (EPA) in Butte in relation to the Berkeley Pit, had been that "they are a bunch of dwaddlers." Approximately 15 million dollars has been spent to date regarding the Pit, Stimatz said, and the quality of their study conducted continues to be

questionable. Additionally, another 10 million dollars has been spent, Stimatz said, and yet, "we seem to be essentially where we were except that they have gathered some additional data."

The Berkeley Pit fills at the rate of 7.6 million gallons per day, Stimatz said, and presently has approximately 16 billion gallons of water in it. Stimatz stated all principal responsible parties (PRP) are responsible for cleanup costs of the Pit. The Pit is regarded as a bathtub and isn't leaking at the moment, Stimatz noted, but when the water in the Pit reaches the soft soils (alluvium) above the bedrock, the water will begin leaving the Pit. Pure water is being poured into the Pit and is flowing into mine waste, which is contaminating the water, he said.

Representative Daily drafted HB 380, Stimatz said, because he is concerned that when the Berkeley Pit water reaches the alluvium (5410 ft) there will be groundwater contamination. This critical level, according to Daily, may be reached sooner than predicted. In 1982, the pumps in the Pit were shut off, Stimatz said, and ultimately, the water in the mine shafts and the Berkeley Pit began rising. HB 380 urges the EPA to "get going."

Senator Bengtson noted she felt a message that action needed to be taken had been given through a consent order.

Senator Keating stated that HB 380 already involves the Department of Health and Environmental Sciences and if the legislature is now interjected, there may be problems coming to a resolution.

Bill Kirley, DHES, (attorney general's office), stated, "legally, the Department is currently involved and has discretionary authority to do everything that would be required in HB 380." There are a number of scientific uncertainties in what is going on within the Pit, he said.

Dennis Lind, Montana Resources, told the committee that from a legal perspective, if there had been contamination and an order issued from EPA to cleanup the area, ARCO would be ordered to do the cleanup although it is possible that the situation could end in litigation.

Senator Grosfield stated there was no doubt there was "a terrible problem in Butte and if the bill does not pass now, it will likely be reintroduced in the next session." Grosfield said he believed that the information presented within the bill was "a little off-base on the facts," and that he would vote against it.

Senator Weeding stated that he believes that when the contaminated water in the Pit reaches the alluvium, the funnel will begin to fill up with fresh as well as contaminated water, the two will mingle and spill outside the Pit. Weeding said he hoped "something would be done" before that happened.

Amendments, Discussion, and Votes:

None.

Recommendation and Vote:

Motion by Senator Keating that HB 380 BE NOT CONCURRED IN passed. Chairman Stimatz and Senator Doherty voted against the motion.

EXECUTIVE ACTION ON HB 539

Motion:

Motion by Senator Keating that HB 539 BE NOT CONCURRED IN.

Discussion:

Senator Keating explained that the bill was designed in relation to the Berkeley Pit situation but "could impact other projects and other people" within the state.

Senator Bianchi asked for an explanation on HB 539.

Chairman Stimatz answered that HB 539 does not give additional power to DHES but does "prod them to exercise their discretion in a little quicker manner."

Senator Tveit said he did not understand who would be responsible financially for clean-up of the Pit.

Amendments, Discussion, and Votes:

There was no further discussion.

Recommendation and Vote:

Motion by Senator Keating that HB 539 BE NOT CONCURRED IN was tied with a 5 to 5 vote.

Senator Doherty voted against the motion by Senator Keating and made a motion that HB 539 BE CONCURRED IN.

Motion by Senator Doherty that HB 539 BE CONCURRED IN carried with Senators Anderson, Bengtson, Grosfield, Keating and Tveit opposing the motion.

EXECUTIVE ACTION ON HJR 39

Motion:

Motion by Senator Keating that HJR 39 BE CONCURRED IN.

Senator Keating made a substitute motion to move amendments 1-6

of HJR 39.

Motion by Senator Keating that HJR 39 BE CONCURRED IN as amended.

Discussion:

None.

Recommendation and Vote:

Motion by Senator Keating that HJR 39 BE CONCURRED IN as amended carried.

EXECUTIVE ACTION ON HB 139

Motion:

Motion by Senator Weeding that HB 139 BE CONCURRED IN.

Discussion:

Senator Keating stated he wanted to "make a pitch" on HB's 139, 377 and 891. "What happens on one side of the state doesn't necessarily affect people on the other side of the side and is hardly even understood by the people on the other side of the state," Keating said. "If we develop perfectly safe landfills, we can create economy for the state. Solid waste can be stored safely. If you pass a moratorium against the importation of solid waste, you are slamming the door on solid waste. The bill precludes the project from even being undertaken. We have sufficient standards in the law at the present time to handle a small landfill or a megalandfill. We need to consider the long range affects of not passing these landfill bills."

Senator Weeding noted that the moratorium is "just for two more additional years. These were some of the same arguments raised two years ago and no one has challenged it. The moratorium is being proposed to get other acts into place so that we are able to go through a permitting process. Half of the solid landfills in Montana have real problems, including the Billings superfund site, so our current process in not foolproof by any means. We're talking about dumpsites 20 to 25 times the size of anything we have right now. HB 139 won't preclude people from coming in and investigating sites in Montana or even making their permitting assessments and going through the process. I'd be willing to bet another session would not extend this any further. But we need time to get everything in order. There are seven states looking at Montana as potential dump sites. We're not ready to deal with the question of how safe megalandfills are. We need the two year time," Weeding said.

Senator Tveit stated that he felt that, as legislators, "we're always looking behind instead of ahead." The bill will eventually be for in-state garbage, Tveit said, not for out of state

garbage. "If it's environmentally safe, it could be done."

Senator Keating noted "HB 139 is a message to others that the door is closed... we don't want you and as long as that message is there, the two years might as well be ten years because the lead time on this type of a permitting process is quite lengthy and they won't start until they're invited. If the door is closed now, you're shutting out the potential for anyone to be interested in a permit."

Amendments, Discussion, and Votes:

None.

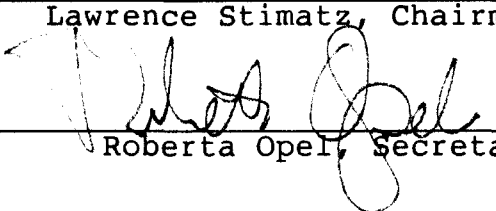
Recommendation and Vote:

Motion by Senator Weeding that HB 139 BE CONCURRED IN passed on an 8 to 3 vote.

ADJOURNMENT

Adjournment At: 10:30 a.m.

\_\_\_\_\_  
Lawrence Stimatz, Chairman

  
\_\_\_\_\_  
Roberta Opel, Secretary

LS/ro

ROLL CALL VOTE  
Natural Resources  
COMMITTEE

8:30 AM

DATE 3-27-91

52

LEGISLATIVE SESSION

Roll call vote # 539

| NAME                   | PRESENT | ABSENT | EXCUSED |
|------------------------|---------|--------|---------|
| Senator Anderson       | ✓       | no     |         |
| Senator Bengtson       | ✓       | no     |         |
| Senator Bianchi        | ✓       | yes    |         |
| Senator Doherty        | ✓       | yes    |         |
| Senator Grosfield      | ✓       | no     |         |
| Senator Hockett        | ✓       | yes    |         |
| Senator Keating        | ✓       | no     |         |
| Senator Kennedy        | ✓       | yes    |         |
| Senator Tveit          | ✓       | no     |         |
| Vice Chairman, Weeding | ✓       | y      |         |
| Chairman Stimatz       | ✓       | y      |         |
|                        |         |        |         |
|                        |         |        |         |
|                        |         |        |         |
|                        |         |        |         |

Each day attach to minutes.

ROLL CALL VOTE

SENATE COMMITTEE Natural Resources

Date 3/27/91 Bill No. HB 139 Time \_\_\_\_\_

| NAME                           | YES | NO |
|--------------------------------|-----|----|
| Senator Anderson               |     | ✓  |
| Senator Bengston               | ✓   |    |
| Senator Bianchi                | ✓   |    |
| Senator Doherty                | ✓   |    |
| Senator Grosfield              | ✓   |    |
| Senator Hockett                | ✓   |    |
| Senator Keating                |     | ✓  |
| Senator Kennedy                | ✓   |    |
| Senator Tveit                  |     | ✓  |
| Senator Weeding, Vice Chairman | ✓   |    |
| Senator Stimatz, Chairman      | ✓   |    |
|                                |     |    |
|                                |     |    |

Robert C. Jones  
Secretary

\_\_\_\_\_  
Chairman

Motion: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Amendments to House Joint Resolution No. 39  
Third Reading Copy

Requested by Rep. Daily  
For the Committee on Natural Resources

Prepared by Gail Kuntz  
March 13, 1991

1. Page 1, lines 24 and 25.

Following: "when"

Strike: "active mining ended, the pumps were turned off"

Insert: "underground mine dewatering ended"

2. Page 2, line 7.

Following: "is"

Strike: "highly"

3. Page 2, line 8.

Following: "contains"

Strike: "high"

4. Page 2, line 22.

Following: "consent"

Strike: "decree"

Insert: "order"

5. Page 3, line 24.

Following: "the"

Insert: "Mine Flooding Operable Unit of the"

6. Page 3, line 25.

Following: "Creek"

Strike: ", Butte Area"



## **MINUTES**

### **MONTANA SENATE 52nd LEGISLATURE - REGULAR SESSION COMMITTEE ON NATURAL RESOURCES**

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3:00 p.m.

#### **ROLL CALL**

##### **Members Present:**

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John Jr. Anderson (R)  
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Don Bianchi (D)  
Steve Doherty (D)  
Lorents Grosfield (R)  
Bob Hockett (D)  
Thomas Keating (R)  
John Jr. Kennedy (D)  
Larry Tveit (R)

##### **Members Excused:**

Staff Present: Gail Kuntz (EQC).

Please Note: These are summary minutes. Testimony and  
discussion are paraphrased and condensed.

Announcements/Discussion: None

#### **HEARING ON HB 375**

##### **Presentation and Opening Statement by Sponsor:**

Representative Hansen, District 57, told the committee that HB 375 is "a simple bill addressing littering." Littering fees are not currently enforced, Hansen said, and so HB 375 raises the fine to not more than \$250 for the first offense and not more than \$500 for the second offense. Hansen said she felt everyone should be more careful disposing of their litter.

##### **Proponents' Testimony:**

There were no proponents'.

Opponents' Testimony:

There were no opponents'.

Questions From Committee Members:

Senator Doherty asked Representative Hansen where the money collected for fines would go.

Representative Hansen stated the money would be deposited in the general fund.

Representative Hansen stated that the fine could be as low as \$1 or as high as \$500.

Senator Keating asked how much garbage would be thrown out to be fined?

Representative Hansen replied that the fine would probably only be applicable if someone was throwing out a large amount of garbage. The exact amount of the fine would be up to the police officer levying the fine.

Closing by Sponsor:

Representative Hansen told the committee that it was time to begin fining those littering.

HEARING ON HB 637Presentation and Opening Statement by Sponsor:

Representative Becker, District 91, told the committee that HB 637 would "enable people to avoid exposure to freshly applied pesticides." Becker said she wanted to emphasize that the bill does not apply to agricultural spraying. The bill does not prevent or deter pesticide application, but simply lets individuals know when it is being applied. There is a Statement of Intent included in the bill, Becker said, asking that when pesticide is being applied, a colored sign noting the kind of pesticide used, should be put up in the vicinity being sprayed.

Proponents' Testimony:

Greg Amsden-Haegle, Assistant Director, MontPIRG (Montana Public Interest Research Group, testified in support of HB 637. (EXHIBIT #1).

Nancy Matheson, representing the Northwest Coalition for Alternatives to Pesticides, testified in support of the bill. (EXHIBIT #2).

Loreen Folsom, Missoulians for Clean Environment, testified that in support of HB 637. (EXHIBIT #3).

Jim Barngrover, Alternative Energy Resources Organization, testified that the public does have the right to know what toxins they are being exposed to. If there are human or animal exposures to pesticides, under HB 637 appropriate response actions could be taken.

Kristin Page, MontPIRG, submitted testimony on behalf of the Montana/Wyoming Chapter of the Chemically Hypersensitive. (EXHIBIT #4). Page also submitted testimony from additional proponents of HB 637 including:

Dr. Jonathan Patz, Victor. (EXHIBIT #5).  
 Dr. Eric Kress, Missoula. (EXHIBIT #6).  
 Dr. Paul Loehnen, Missoula. (EXHIBIT #7).  
 Donetta Klein, Missoula. (EXHIBIT #8).  
 Deborah Tomas, R.N., Missoula. (EXHIBIT #9).  
 Kathleen Irwin, Missoula. (EXHIBIT 10).  
 Stephanie Anderson, Missoula. (EXHIBIT 11).  
 Jill Haas, Missoula. (EXHIBIT #12).

Linda Lee, Montana Audubon Legislative Fund, testified in support of the bill. (EXHIBIT #13).

Chris Kaufman, Montana Environmental Information Center, stated they supported the citizens right to know what chemicals are being used in their environment. Kaufman urged the committee not to get "too caught up in trying to decide if these chemicals are dangerous since the jury is still not in on some of these pesticides."

Will Snodgrass, Missoulians for a Clean Environment, submitted testimony in support of HB 637 as well as summary information prepared by Dr. Marion Moses, "Reports on Pesticides." (EXHIBIT #14).

Matt Arno, MontPIRG, appeared as a citizen in support of HB 637. "If a potentially toxic substance is being sprayed in our area, I think we have a right to know," Arno said.

June Siple, Missoula, submitted written testimony in support of HB 637. (EXHIBIT #15).

Tom Peel, Missoula, submitted written testimony in support of HB 637. (EXHIBIT #16).

Sandra Perrin, Missoula, author of "Organic Gardening in Montana and the Northwest" submitted testimony supporting HB 637. (EXHIBIT #17).

Bonnie Wisherd-Brewer, Bonner, submitted written testimony in favor of the bill. (EXHIBIT #18).

A registry of Missoula citizens supporting passage of HB 637 is submitted as EXHIBIT #19.

Opponents' Testimony:

John Bass, Lawn Master, Inc., and AMTOP (Association of Montana Turf and Ornamental Professionals, Inc.) testified that they "firmly opposed HB 637." (EXHIBIT # 1).

Merle Riggs, Riggs Tree Spray Services in Billings, told the committee that, in over 50 years, he has heard of only one complaint from an asthmatic youth. (EXHIBIT #2). The bill is "frivolous and not needed," Riggs said. Riggs provided a description of the cost of pesticide spraying signs from Professional Posting Signs. (EXHIBIT #3).

Jim Terry, Customized Pest Control, Missoula testified in opposition to HB 637. (EXHIBIT # 4). The bill forces any person to post a sign 72 hours prior to spraying, Terry said, and stated that none of his customers supported the bill. "Are you willing to increase the Department of Agriculture's budget and manpower to enforce this bill?" Terry asked.

Larry Chvilicek, owner of Nitro-Green, Bozeman, opposed HB 637. (EXHIBIT #5). Chvilicek said that only two thirds of the population fell under the jurisdiction of the bill. "Remember the EPA has been charged with determining whether or not a pesticide has justifiable concerns, not legislation such as HB 637."

Scott Selstad, Lawn Ranger Spray Service, Great Falls, stated that "although HB 637 is presented as a right-to-know bill, it is presented so restrictively that it is obviously an anti-pesticide bill." (EXHIBIT #7). The best way to protect the chemically hypersensitive is to provide a statewide registry whereby those concerned could be notified prior to spraying, Selstad said.

John Mullette, Orkin Exterminating Co., Inc., Great Falls, testified in opposition to HB 637 stating that the bill was not designed to protect the individual but rather to limit the amount of pesticide usage. (EXHIBIT #7). Mullette said that although he did not support the bill, he did support the citizens right-to-know.

Dave Pickett, Chairman of the Butte-Silver Bow Weed Board, stated that he felt the bill "missed the problem badly. The problem is inadequate training of the applicators," Pickett stated. Pickett noted that he was concerned that the law would pit one neighbor against another.

Doug Johnson, Cascade County Mosquito and Weed Management administrator, said the mosquito districts are unable to "post and treat" at the same time.

The following people also testified in opposition to HB 637:

Jane Barry, Bozeman, Montana Association of Nurserymen. (EXHIBIT #8).

Chris Hindoiien, Teton County Weed Control District. (EXHIBIT #9).

Dennis Roberts, Chemlawn/AMTOP, Billings. (EXHIBIT #10).

Brad Culver, AMTOP/Nitrogreen, Helena. (EXHIBIT #11).

John Semple, Association of Montana Aerial Applicators, Helena. (EXHIBIT #12).

Dave Burch, Montana Weed Control Association, submitted written testimony opposing HB 637. (EXHIBIT #13).

Questions From Committee Members:

Senator Keating asked Representative Becker to provide him with a step by step plan of proper notification of spraying with pesticides.

Senator Keating asked who would investigate those who failed to post spraying notices.

Gary Gingery, Department of Agriculture, responded that his department would do the inspection or authorized agents would be appointed. Education and enforcement go hand-in-hand, Gingery said.

Senator Hockett asked John Bass how an individual would know he was allergic and wouldn't it likely be too late to discover an allergy after the spraying had been done.

Bass stated that those with allergies have a right-to-know before the application of pesticides.

Senator Hockett asked if those doing the spraying were commercial applicators?

Bass responded that applicators have to be licensed and must pass a pesticide application test. Each individual company is responsible for training and any violations resulting from spraying, Bass said.

Senator Doherty asked if placing signs near salad bars noting the use of MSG (Monosodium Glutamate) "destroyed the restaurant business?"

Senator Tveit asked Representative Becker if the bill was designed for health purposes or to ban pesticides?

Becker stated HB 637 was not designed to control pesticide use but simply to allow for proper notification of its use.

Closing by Sponsor:

Representative Becker commented that the idea of a state registry for those who are chemically hypersensitive was "a great idea" but noted that only 2% of the doctors in the country recognize chemical sensitivity. "We are not trying to prevent the use of pesticides," Becker reminded the committee.

HEARING ON HB 233Presentation and Opening Statement by Sponsor:

Representative Measure, District 6, on behalf of Representative Bardanouve, presented HB 233 to the committee. The bill addresses a problem from the previous session, Measure said, regarding leaseholders along the railroad right-of-ways. HB 233 is important to have railroads maintained and give the first right of purchase to these leaseholders.

Proponents' Testimony:

Senator Thayer, District 19, presented his amendments to the committee. (EXHIBIT #1). The bill will give the right of refusal to the first lease holder, Thayer said. Thayer reminded the committee that HB's 233 and 924 are "tied together".

Pam Langley, on behalf of Montana Agricultural Business Association, Montana Grain Elevator Association, Montana Seed Trade Association and Pacific Northwest Grain and Feed Association, submitted written testimony supporting HB 233. (EXHIBIT #2).

Opponents' Testimony:

John Crowley, Missoula, stated that he is philosophically opposed to the bill as railroads are singled out in the bill while other companies are not addressed. Crowley said that the first right of refusal was never anticipated when negotiating the current leases. "If the bill is going to be passed," Crowley said, "please give consideration to making the effective date July 1."

Leo Berry, Burlington Northern, stated that BN had participated in the negotiations of both HB 240 and 924 would prefer not to have amendments added.

Questions From Committee Members:

Senator Tveit asked Crowley if he believed there were only seven or nine examples of elevators near right of way areas.

Crowley stated that the intent of the bill is to affect all leases.

Senator Thayer commented that he felt his amendment was "very important." The bill was presented once before and railroad lobbyists told legislators "not to worry." There are millions of dollars of property "out there to worry about now," Thayer said. Thayer urged the committee to consider the amendments.

Senator Keating asked Thayer if it was an active line that was being considered?

Senator Thayer replied it was.

Closing by Sponsor:

Representative Measure, District 6, noted that citizens of Montana provided the right of way for the railroads to operate. Once the month to month lease expires, Measure said, the lease could be rewritten for their purpose. Burlington Northern would be bound by the provisions of HB 233, Measure said, because they specifically agreed to the terms that are incorporated in the bill. Those specifically affected by the bill would be individuals who have elevators or other businesses alongside the railroad. Measure asked that HB 233 BE CONCURRED IN.

HEARING ON HB 924

Presentation and Opening Statement by Sponsor:

Representative Measure, District 6, presented HB 924 which would require the Department of Commerce to utilize abandoned railbeds throughout the state. Over 40% of railbeds have been abandoned and are now "excellent corridors for recreational use," Measure said. The Rails Act of 1987 was passed to allow for the DOC to inform those interested when a railbed has been abandoned. HB's 233 and HB 924 are tied together through a coordinating clause, he said. An amendment notifying adjacent landowners of abandoned railbeds may be introduced at a later date, Measure said.

Proponents' Testimony:

George McCauley, Gold Country Rails-To-Trails, submitted written testimony "primarily supporting" HB 924. (EXHIBIT #1).

Representative Thayer, District 19, submitted Representative Measure's amendment. (EXHIBIT #2).

Willa Hall, Helena, Gold Country Rails-To-Trails, stated she felt that recreational trails on abandoned railbeds had a "very positive impact on the community" and have, at times, increased the value of adjacent property.

Opponents' Testimony:

Dave McClure, President of the Montana Farm Bureau, told the committee the Bureau opposed the utility right-of-way. McClure

said he felt it was "unfortunate" that HB's 233 and 924 were tied together as he felt the bills addressed two different issues. McClure referred to HB 233 as a "good bill" and HB 924 as the "bad bill."

Loyd Bowen, a property owner adjacent to a proposed abandoned rail line. Bowen asked the committee to "kill the bill. I believe the bill is a needless intervention where intervention is not needed," Bowen said. (EXHIBIT #3).

Clarence Comes, Lewistown, submitted written testimony opposing HB 924. (EXHIBIT #4). Comes submitted a petition listing landowners adjacent to the railbed who are opposed to HB 924 (EXHIBIT #5) and a signed letter from the Fergus County Commissioners also stating opposition (EXHIBIT #6).

Ron Bokien, Lewistown, also opposed HB 924 and provided testimony. (EXHIBIT #7).

Robert Lee, Judith Gap, stated he was "seriously concerned about the future control of noxious weed" near these railbeds and said he felt the railbeds should be sold back to the adjacent farms and ranch owners. (EXHIBIT #8).

Carol Mosher, Montana Cattlewomen, stated that she felt the committee had "a real quandary." Mosher stated they are not opposed to HB 233, however.

George Hamilton, Lewiston, stated he didn't feel additional trails were needed for walkers and opposed HB 924. (EXHIBIT #9).

Don Boyer, Lewistown, submitted testimony opposing HB 924. (EXHIBIT #10).

Bob Williams, District 15, stated he was afraid passage of the bill would do more harm than is visualized. Williams said he was concerned that people would buy out the land and raise the leases. Williams said he would like to see the bill tabled as it would benefit the most number of people.

#### Questions From Committee Members:

Senator Hockett asked Representative Measure to explain the 18 ft easement.

Representative Measure stated that the 18 ft easement is probably residual on either side of the center line. The bill deals primarily with notification of abandonment rather than purchase or first right of refusal or transfer, Measure explained.

Senator Keating asked Berry who would be notified when a railroad was abandoned.



Leo Berry replied that after the abandonment has been registered with the ICC, the DOC would be notified.

Senator Weeding asked if DOC had any money available for the transfer of property.

Representative Measure said he did not know if there was money available and that was why permissive language was used within the bill.

Senator Tveit presented amendments to HB 924. (EXHIBIT #11).

Closing by Sponsor:

Representative Measure stated that HB 924 "wasn't intended to hurt any existing law" and apologized to Lewistown residents for creating "a lot of concern." Measure told the committee that House Natural Resources chairman, Bob Raney, felt HB 924 needed to be adopted. Measure urged the adoption of his amendments and asked that the bill BE CONCURRED IN.

EXECUTIVE ACTION ON HB 671

Motion:

There were no motions made during the discussion on HB 671 at this meeting.

Discussion:

A report on HB 671 from Subcommittee Chairman, Senator Weeding was given at the March 27, 1991 Natural Resources meeting.

Senator Eck will carry the bill if it passes the committee, Weeding stated. For purposes of discussion only, a second gray bill was created from the amendments developed by the subcommittee. (EXHIBIT #1) Weeding recommended the gray bill to the committee and said he felt most of the difficulties had been "ironed out." Definitions of trailer-hookups and dwellings are clarified in the gray bill, Weeding said.

Deborah Schmidt, Executive Director of the Environmental Quality Council, told the committee that the current gray bill was a formal gray bill that included the recommendations of the subcommittee. Schmidt noted that Helena attorney, Ted Doney, had helped with the bill's language.

Amendments, Discussion, and Votes:

None.

Recommendation and Vote:

None.

HEARING ON HB 660

Presentation and Opening Statement by Sponsor:

Representative Cohen, District 3, presented HB 660 to the committee. Funding for the bill would come from SB 209, Cohen said.

Proponents' Testimony:

Chris Kaufman, Montana Environmental Information Center, testified in support of the bill stating that HB 660 would allow someone to dispose of solid waste on their own property.

Janet Ellis, Montana Audubon Legislative Fund, stated support for HB 660.

Opponents' Testimony:

There were no opponents' to the bill.

Questions From Committee Members:


There were no questions from the committee.

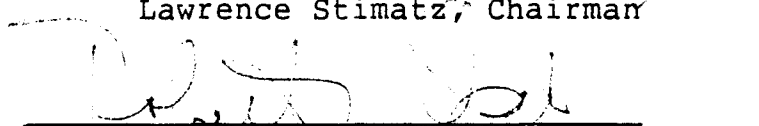
Closing by Sponsor:

Representative Cohen asked that HB 660 BE CONCURRED IN and noted a fiscal note had been added to the bill.

ADJOURNMENT

Adjournment At: 8:20 p.m.

  
Lawrence Stimatz, Chairman

  
Roberta Opel, Secretary

LS/ro

NR032791.SM2

EXHIBIT NO. 1DATE 3-27-91 PMBILL NO. HB 637WITNESS STATEMENT

To be completed by a person testifying or a person who wants  
their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: John M. Bass

Address: 113 Small Ln

Missoula, Mt. 59801

Telephone Number: 549-6929

Representing whom?

Lawn Master, Inc., AMTOP

Appearing on which proposal?

HB 637

Do you: Support? ☐ Amend? ☐ Oppose? ☒

Comments:

See prepared statement

Testimony in Favor of H.B. 637  
Senate Natural Resources Committee  
1991 Montana Legislative Session  
March 27, 1991

SENATE NATURAL RESOURCES  
EXHIBIT NO. 1  
DATE 3-27-91 PM  
BILL NO. HB 637

Prepared by  
Greg Amsden-Haegle, Assistant Director,  
MontPIRG, Montana Public Interest Research Group

Chairman Stimatz and members of the Natural Resources Committee:

My name is Greg Amsden-Haegle. I'm the Assistant Director for MontPIRG, the Montana Public Interest Research Group.

In March 1990, the U.S. Government Accounting Office released a report on the lawn care pesticides industry which concluded two things: first, that the EPA has finished testing for chronic health effects on only two of the thirty-two most commonly used lawn care pesticides, and second, that the EPA will not finish testing the remaining thirty pesticides for at least another four to five years. *In the mean time, the jury is out on lawn care pesticides: we simply don't know which pesticides are or are not safe*, yet there is considerable preliminary evidence to raise concerns. Until we do know which pesticides are safe, prudence requires that we treat them cautiously. People exposed to potentially hazardous lawn care pesticides should be warned so they can take appropriate precautionary measures. House Bill 637 does this in a simple, effective way. At the same time, it continues to allow consumers to use lawn care pesticides as they see fit.

Currently, the federal government requires warning labels on all lawn care pesticides containers. The labels warn consumers of potentially hazardous health effects associated with exposure to pesticides, and make it possible for people using the chemicals to take appropriate steps to minimize their own exposure as well as exposure to their family, children, and pets.

Unfortunately, when someone applies lawn care pesticides, he or she is not the only person exposed to them. Neighbors and their children and pets are also exposed, yet in most cases they have no way of knowing when and where pesticides have been sprayed, and consequently, no way to minimize their exposure. House Bill 637 merely extends the warning label already on pesticide cans and bottles to everyone who runs the risk of exposure, not just those people who benefit from the application to their lawn, shrubs, and trees. It doesn't prohibit pesticides use; it doesn't even restrict pesticides use; it does give people information they must have in order to make their own decisions about minimizing their exposure to pesticides.

I urge you to vote for H.B. 637: vote to give citizens the right to make their own decisions about minimizing their exposure to potentially hazardous chemicals. Thank you.



# NORTHWEST COALITION for ALTERNATIVES to PESTICIDES

P.O. BOX 1393 EUGENE, OREGON 97440 (503) 344-5044

SENATE NATURAL RESOURCES

EXHIBIT NO. 2

DATE 3-27-91

BILL NO. HB 367

Written Testimony in Support of HB 367  
by Norma Grier, Executive Director  
Northwest Coalition for Alternatives to Pesticides  
Eugene, Oregon  
February 15, 1991

I am writing in support of HB 367, a bill requiring posting of signs for lawn care applications in the state of Montana.

The Northwest Coalition for Alternatives to Pesticides is a thirteen year old organization concentrating our efforts on educating the public about problems with pesticides and the alternatives to their use. Our membership is from every state in the United States, but two-thirds of our membership is concentrated in Washington, Oregon, California, Idaho, and Montana. We have program areas in forestry, ground water protection, urban pesticide use, roadside vegetation management, and agricultural use of pesticides.

## The Need for Posting of Lawn Care Applications

There are many examples of individuals experiencing harm from exposure to lawn care pesticides, yet not knowing that they were being exposed at the time. Examples abound from many states across the continent. In fact, this issue was the topic of a 1990 U.S. Senate oversight hearing on lawn care chemicals.

There are several clear examples of problems with exposure to lawn care pesticides. An incident from La Grande, Oregon is especially noteworthy, because it points to the need to post pesticide applications. Several years ago, an asphalt paving company was contracted to pave a parking lot for a church located just uphill from and adjacent to a family's residence. The paving company applied the herbicide, prometone, prior to laying the asphalt. Through run-off, the herbicide moved onto the adjacent, downhill lawn and into this family's vegetable garden. In time, there was visible plant damage wherever the herbicide travelled.

This incident is important not just because of the clear damage to this family's lawn and plants. When the family suspected herbicide movement onto their property, they first found out what the herbicide was and then contacted the manufacturer of prometone. Because the herbicide was not

registered for use on root crops, the residents were told not to eat the root crops from their garden (e.g., carrots and onions).

Unfortunately, the family did not find out about this restriction until they had already consumed all of their garden onions. The family remains concerned about the long-term health effects they may experience from this exposure. Posting on the adjacent lot might have prevented this incident, as this family would have known that pesticides had been applied and could have made inquiries as soon as the posting was done.

A second incident is from Yakima, Washington and involves a child on a schoolground.<sup>3</sup> This incident occurred on public land, but it could just as easily have been a private yard. On February 27, 1989, a first-grader almost died after ingesting some "pinches" of granular disulfoton (Disyston), a highly toxic organophosphate insecticide. The disulfoton had been applied to the schoolgrounds under some trees when there was still snow on the ground. When the snow melted, the insecticide was exposed, and this curious boy and his classmates were attracted to what looked like "sand." This first grader spent two days "fighting for his life."

This near-fatal accident could have been avoided if the schoolground application had been posted. Children can be taught to recognize pesticide application posting signs and to avoid treated areas.

Posting areas treated with pesticides ensures that the public knows where applications have been made. Individuals then have the right to choose to avoid such areas.

#### At Least Eight States Have Acted on Posting Signs

At least eight states have taken action to post pesticide-treated areas.<sup>4</sup> As of January 1, 1989, the six states of Maine, Maryland, Massachusetts, New Jersey, New York, and Rhode Island have implemented regulations requiring commercial lawn care companies to post warning signs in residential areas after every chemical application. In most states, lawn care rules also apply to trees and shrubs. Two states, Connecticut and Iowa, were still in the process of finalizing posting regulations. Other states may have implemented regulations in the interim since 1989.

Here in the Northwest, the state of Washington is considering posting requirements for lawn care pesticide applications this legislative session.

Ex. 2  
3-27-91 pr  
HB 63-

-3-

Posting of Warning Signs is Sound Public Policy

If lawn care pesticide application signs are posted, then the public can know where pesticides have been applied and take precautions to avoid unnecessary exposure. The public's right to know where pesticides are applied and right to consent to pesticide exposure must be guaranteed. Posting is a simple, cheap, and effective way to inform the public.

A vote in support of HB 367 would join Montana legislators with other policymakers across the nation who have supported posting of lawn care pesticide applications. A vote in support of this bill would underscore a shared vision for a commitment to the public's right to know.

Thank you for your consideration of this important matter.

Signed: Norma Grier  
Norma Grier

References

1. U.S. Senate Subcommittee on Toxic Substances, Environmental Oversight, Research and Development. March 28, 1990. Oversight hearings on use and regulation of lawn chemicals. U.S. Senate.
2. Anonymous. 1989. Cove, Oregon tackles pesticides on the playground, Columbiana 3.1:58 and 60.
3. Riley, Becky. 1990-1991. "Mommy, I'm dying": Learning from a school pesticide tragedy. Journal of Pesticide Reform 10(4):2-3.
4. Weiss, Laura. April, 1989. Keep off the grass. Part II: An analysis of state regulations governing the commercial lawn care industry. Washington D.C.: Public Citizen's Congress Watch.

442 Kensington  
Missoula, Montana 59801  
February 14, 1991

SENATE NATURAL RESOURCES  
EXHIBIT NO. #3  
DATE 3-27-91 pm  
BILL NO. HB 637

Chairman  
House Natural Resources Committee  
Montana State Legislature  
Helena, Montana 59601

Dear Chairman and Members of the House Natural Resources  
Committee:

I am writing this letter to strongly support HB 637 which would require notification prior to pesticide spraying. In general, I feel that it is the right of every individual to know that his immediate environment will be sprayed so that he may make the decision (for himself and his family and pets) to vacate the area if he so desires. Particularly, I wish to inform you that I was a victim of ambient spray from a commercial tree spraying service and suffered flu-like symptoms (along with some of my neighbors, including two small children). In this case, I was not notified that the spraying would take place and had no chance to protect myself from exposure to this poison.

There is increasing evidence that pesticides (here I would include poisons that kill both animal and plant life) are harmful to human organisms, with the degree of harm apparently proportional to the size of the person. Thus, children and fetuses are more at risk than are grown persons. Parents and expectant mothers should especially have the opportunity to protect their children (born and unborn) from these toxic substances.

I urge your support of this bill for the increased health of us all.

Sincerely,

  
Loreen C. Folsom



Testimony for HB 637  
Pesticide Right to Know

Submitted by

Cynthia Wilson

on behalf of

The MONTANA/WYOMING CHAPTER  
of the  
Chemically Hypersensitive  
P.O. Box 301, White Sulphur Springs, MT 59645

Mr. Chair and Members of the Committee:

The Montana/Wyoming Chapter of the Chemically Hypersensitive is pleased to provide testimony on HB 637 which will provide people with the right to know what pesticides they may be inadvertently exposed to.

MWCH is an information, education, and advocacy organization which focuses on the chemically injured and the health issues these people face. In addition, we are concerned with the issue of making sure others do not fall victim to the same poisoning we experienced.

This bill could not only help the chemically injured by informing them of potential health risks but may go a long way to prevent the accidental poisoning of others.

Over 16 million Americans are sensitive to pesticides according to studies conducted at the Seramune Physicians Laboratory in Reston, VA. Some 5 million people are so sensitive to carbamates, organophosphates, and halogenated pesticides that near fatal reactions can occur.

Montana has not been spared its share of pesticide poisoning cases either. There were 75 Burlington Northern railroad workers chemically injured from pesticide applications. While MWCH has over 100 members, only 9 are former railroad workers. However, our statistics are showing close to 60% of the victims registered became ill from exposure to pesticides. Many victims are ranchers and farmers who are having a hard time accepting the fact they helped to poison themselves. They just didn't understand that pesticides are really that dangerous.

The Environmental Protection Agency, the Office of Technology Assessment, and the Agency for Toxic Substances and Disease Registry have clearly established that pesticides can

Ex. 4  
3-27-91pm  
HB 637

to sever neurologic, central nervous system, and immune system damage from being inhaled, ingested, or absorbed through the skin. Because most chemicals are so readily absorbed through the skin, the risk from toxic clouds are of particular importance. It means the average person, even if wearing a mask to protect the lungs, can still be poisoned. In some cases, it takes less than .17 part per BILLION of a chemical in the air to start causing irreparable damage.

Also, the EPA has known for some time that 70% of all pesticides in use today have fraudulent animal safety test reports, but it lacks the funds to do anything about these abuses. Therefore, our only protection is the right to be informed on what we were being exposed to so that we can do our own risk assessments.

For many chemically injured victims knowing what they are being exposed to is no longer a matter of simple risk assessment. It's a matter of life and death. An unsuspecting chemically injured young woman of 19 walked into a restaurant in Great Falls that had installed a pesticide spraying device above the door. It worked and she almost died from anaphylactic shock. If she had known the restaurant had a pesticide sprayer, she would never have gone in there. Her lack of rights almost cost her her life.

The life style of the chemically injured is almost unimaginable to the average person. Therefore, it's not surprising that our needs are so often overlooked. It is hard for someone spraying a pesticide a mile away from my house to understand that if the toxic cloud drifts into my yard, he has put my life at risk. HB637 wouldn't matter if it was just my life he was risking, but he is jeopardizing the health of anyone who comes into contact with that chemical, especially children.

Children are far more susceptible to neurologic and immune system damage than adults because of their immature body systems and because these chemicals concentrate near the ground, below the 4 foot level.

We are not asking pesticide spraying be banned, but when toxic chemicals are used around populated areas, people have the right, the need, to know so they can take steps to protect themselves and their children.

The Montana/Wyoming Chapter of the Chemical Hypersensitive strongly urges passage of HB637.

Thank you.

SENATE NATURAL RESOURCES  
EXHIBIT NO 5  
DATE 3-27-91 pm  
BILL NO. HB 637

Natural Resources Committee  
House of Representatives  
Montana State Legislature  
Helena, Montana

Feb.,15, 1991

Dear Mr. Chairman and Members of the Natural Resources Committee,

I am writing in support of HB367 which requires notification of pesticide use. I am a Family Physician practicing in Missoula and Lolo, Montana and have many concerns in the area of public health.

I view this house bill as paralleling the Workers Right to Know Bill which was established several years ago. As a practitioner seeing patients on a daily basis, I realize the need for individuals to be aware of factors impacting their health. In the past I have found that patients become most upset when they learn of exposure to potential health hazards after the fact.

Preventive medicine is a crucial element in the practice of medicine today not only for the patient but for the beneficiaries of our health care system as well. With much research substantiating potential teratogenic as well as behavioral effects of pesticides, I feel that it is the public's right to know of exposure to this potential health hazard.

House Bill #367 does exactly this. By alerting the public to potential exposure to pesticides, individuals will at least be aware of possible health risks and choose their course accordingly. One may ignore posted signs, but at least signs should be posted.

Thank you for your time and consideration on this matter.

Sincerely,



Jonathan Patz, MD

644 Fred Burr Rd

Victor, MT 59875 (961-4140)

FAMILY PRACTICE MISSOULA SENATE NATURAL RESOURCES

631 West Alder  
Missoula, Montana 59802  
Telephone: 721-1850



DONALD R. NEVIN, M.D.  
JUDY McDONALD, M.D.  
ERIC J. KRESS, M.D.  
TERENCE CALDERWOOD, M.D.

EXHIBIT NO. #6

DATE 3-27-91 pm

BILL NO. HB 637

Diplomates, American  
Board of Family Practice

February 14, 1991

Dear Mr. Chairperson and  
Members of the Natural Resources Committee:

Re: House Bill 637  
Pesticide Warning Bill

I am writing in support of House Bill 637 which would require reasonable warning be posted prior to using pesticides. Currently, the danger of pesticide use is a topic that is being hotly debated in the scientific literature. Some studies have shown an increase in learning disabilities, development of myopia as well as other medical problems. As a physician practicing in Missoula, I have seen several patients come to the office following pesticide exposure complaining of various skin rashes and breathing difficulties which appear allergic in nature. Until further study defines the risk or safety of these chemicals that have been implicated by many researchers to be dangerous, I believe that it is very reasonable to at least provide people ample warning to avoid pesticide exposure and I hope that you will all support this Bill.

Sincerely,

Eric J. Kress, M. D.

EJK/ms

C. PAUL LOEHNNEN, M.D., P.C.

DIPLOMATE OF THE AMERICAN BOARD OF  
INTERNAL MEDICINE  
PULMONARY DISEASE  
CRITICAL CARE MEDICINE

SENATE NATURAL RESOURCES

EXHIBIT NO. #7

DATE

3-27-91 pm

BILL NO.

HB 637

601 West Spr.  
Missoula, Montana 598  
(406) 728-53

February 13, 1991

Chairman and Committee Members  
Natural Resources Committee  
Montana State Legislature

Dear Chairman and Committee Members:

I am writing as a proponent of House Bill 637. As a pulmonary physician, I am very sensitive to the effects of pollutants and potential harmful substances in the air we breathe. The average human being inhales approximately thirty pounds of air per day versus eating only three pounds of food. Thus, if there is a hazardous substance equally distributed in the air and in the food we eat, we ingest ten times as much of that material if it is disbursed in the air.

It took over forty years for us to finally recognize the harmful effects of asbestos exposure and an equally long time for us to recognize the harmful effects of tobacco use. Society and taxpayers are now paying dearly for the cost of the lung diseases induced by exposure to both asbestos and tobacco. Pesticides are complex and there are literally hundreds of chemical compounds and chemical reactions to which we are exposed. The exact medical impact of this is undefined and will take many years to clarify, if ever. Because these substances are definitely potentially harmful and in a number of instances, have been proved to be harmful, I think it is only prudent to inform the public at large regarding an area in which these pesticides are present. I thus think it is only common sense and socially responsible for appropriate signs to be placed in any area where these known and potential toxins are suspended in the air that we breathe.

Yours Sincerely,



C. Paul Loehnen, M.D.

CPL:bp

Donetta Klein  
722 N. 4th W.  
Missoula, MT 59802

SENATE NATURAL RESOURCES  
EXHIBIT NO. 8  
DATE 3-27-91 pm  
BILL NO. HB 637

February 14, 1991

Natural Resource Committee  
Montana House of Representatives  
Helena, MT 59604

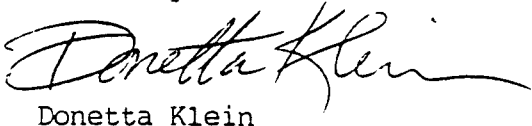
Dear Mr. Chairman and Members of the Committee:

I am writing in support of HB637 which would require that, before applying pesticides and for seventy-two hours after application, a warning be posted to notify the public so those who want to can avoid the application site. Given the concerns about toxicity and the many studies that point to the dangers of pesticide exposure, this seems like little to ask of pesticide applicators in order to ensure that the public has a choice about pesticide exposure.

Because I suffer from multiple allergies and am highly sensitive to chemicals in the environment, I have a special interest in this bill. I have to be extremely careful about coming into contact with chemicals, and many other individuals suffer as I do and must also be extremely careful. The simple warning system proposed in HB637 would enable those of us who react violently to chemical exposure to greatly lessen our chances of exposure.

By requiring pesticide applicators to notify the public of their use of pesticides, the Natural Resource Committee would be addressing the issue of public safety and giving the public a choice about exposure to pesticides. For those reasons, I urge the committee to pass this bill.

Sincerely,



Donetta Klein

EXHIBIT NO. 9

DATE 3-27-91 pm

BILL NO. HB 637

February 13, 1991

Deborah Tomas  
930 Poplar  
Missoula, MT 59802

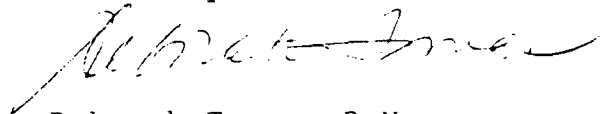
House Natural Resources Committee  
Montana State Legislature  
Helena, Montana

Dear Chairman and Natural Resources  
Committee members:

I lend my support to HB 637 which would require posted warnings to the public when chemical pesticides are being used in public areas. As a registered nurse, I have throughout my life concerned myself with issues related to public health. Few actions "for the public good" have such potential threat to the public good as the use of pesticides. This bill would at least provide information to people about where the chemicals have been used and where they will be used so that they might take precautions to avoid unnecessary contact. So small a service for so important a result!

I urge you to recommend to the Legislature "do pass" for this important bill.

Sincerely,



Deborah Tomas, R.N.

EXHIBIT NO. 10

DATE 3-27-91 pm

Kathleen C. Irwin  
510 Florence  
Missoula, MT 59801

February 14, 1991

Montana State Legislature  
House of Representatives  
Natural Resources Committee  
Helena, MT

Dear Chairperson and Natural Resources Committee Members:

As a citizen concerned about pollutants and their effects on humans and the environment, I am writing to you to express my support of HB 637. It seems essential to me that all spraying in urban areas be publicized by means of the posting of warning signs that include the name of the product being used. This posting should include the marketing name as well as the chemical name of the product. I am concerned for myself, my child and all people and animals living in urban areas where sprayings occur. Please register my interest and support of HB 637.

Thank you,

*Kathleen C. Irwin*

Kathleen C. Irwin



SENATE NATURAL RESOURCES

EXHIBIT NO 11

DATE 3-27-91 pm

BILL NO. HB 637

February 13, 1991

FROM: Stephanie Andersen  
2319 Hillview Court  
Missoula, Montana 59803

TO: The Natural Resources Committee  
Montana House of Representatives  
Helena, Montana 59601

Dear Chairer and Members of the Nautural Resources Committee:

I am a strong proponent of HB637 which requires the posting of signs in public areas where harmful chemicals are used. I am supporting this house bill both because I believe I have a right to know when and where these chemicals are being used and because I personally have an allergic reaction to such chemicals.

Withholding this information from me or people like me can cause an unhealthy situation. But if the area is posted, I can avoid contact with these chemicals or their residues.

Sincerely,

  
Stephanie Andersen

February 13, 1991

SENATE NATURAL RESOURCES

EXHIBIT NO. 12

DATE 3-27-91 pm

BILL NO. HB 637

Natural Resources Committee  
Montana State Legislature  
House of Representatives  
Helena, Montana

To the Chair and Members of the Committee:

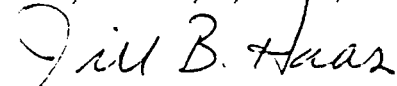
I am writing to urge a YES vote on House Bill 637. This Bill will require public notification within a neighborhood prior to, and after, pesticide spraying has occurred.

I strongly support this pesticide warning bill primarily for the attention it gives to the health and protection of children.

Montana has a strong tradition as a state which provides a high quality environment for families. To raise children in a community which is safe, uncongested, unpolluted and environmentally aware represents an ideal for which millions of families all over this country strive. Here is an opportunity for the State Legislature to reaffirm this value for Montana, to progress forward with it, and to continue building Montana's image as an environment that cares about its citizens and its neighborhoods, right down to the detail of protecting the most vulnerable of its resources - our children - from the myriad ill effects of toxic sprays.

This bill represents a reasonable, decent, appropriate and desirable piece of legislation. Passage of this bill demonstrates your commitment and accountability to a vital, yet grossly overlooked, public health concern.

Very truly yours,



Jill B. Haas  
616 Whitney Lane  
Missoula, Montana

## Montana Audubon Legislative Fund

Testimony on HB 637

*Senate* ~~House~~ Natural Resources

~~February 15, 1991~~

*March 27th*

Mr. Chairman and Members of the Committee,

SENATE NATURAL RESOURCES

EXHIBIT NO. 3

DATE 3-27-91 *pm*

BILL NO. HB 637

My name is Linda Lee and I'm here today representing the Montana Audubon Legislative Fund. The Audubon Fund is composed of nine Chapters of the National Audubon Society and represents 2,500 members throughout the state.

Audubon strongly supports House Bill 637. There are currently more than 30 pesticides used in lawn care. Most of the pesticides used by private citizens have warning labels about their toxicity and users are expected to take precautions.

The problem is that someone may spray a tree that sits near my property *and* unless I witness the spraying, I won't be able to take any precautions. This is a concern for me, and a severe health threat for those people who are hypersensitive to these chemicals.

Diazanone is a pesticide that was banned from use in golf courses because it kills birds. It is still widely used. Would you want your son or daughter to go to a public park and climb a tree that had just been sprayed with diazaneon? I wouldn't. Without a warning sign, we have no way of knowing the tree has been sprayed.

When a professional applicator applies a pesticide, he or she often wears protective clothing. The unknowing person has a right to protection too.

This is a simple bill. We all have a right to know about possible pesticide exposure. It would only be neighborly to post a sign to notify the people next door when I spray my my apple tree, and I would appreciate the city or town let me know when public property has been sprayed. Please vote a do pass on House Bill 637.

Ex. 14

3-27-91 pm

HB 637

WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: WILL SNODGRASS

Address: PO BOX 2885 MSLA MT

Telephone Number: \_\_\_\_\_

Representing whom?

MISSOULIANS FOR CLEAN ENVIRONMENT

Appearing on which proposal?

HB 637

Do you: Support? X Amend? X Oppose? \_\_\_\_\_

Comments:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY

## MEMORANDUM

TO: Chairman and Members of the Senate Natural Resources Committee  
FROM: Missoulians for Clean Environment  
RE: HB 637--Pesticide Caution Signs  
DATE: March 27, 1991

The toxic effects of pesticides in humans are now well known and highly documented, including neurotoxic damage to the peripheral and central nervous systems and brain, associated neurobehavioral effects, learning disabilities, damage to vision, birth defects, and increased cancer rates (especially among children).

From many thousands of pages of readily available independent documentation, we have enclosed a few brief, highlighted excerpts in this pamphlet regarding the known dangers of pesticides. Please take a few minutes to review these highlighted sections before you vote on HB 637.

Thank you.

*Will Hedges*  
\_\_\_\_\_  
*Spokesman*

Summary Information from GAO Reports on Pesticides

Prepared by Dr. Marion Moses  
July, 1987

250 billion pounds of food are produced annually in the United States on approximately 2 million farms

There are 1,200 different active ingredient pesticides used in 35,000 pesticide products registered with the Environmental Protection Agency (EPA).

About 600 of the pesticide active ingredients are used in agriculture.

More than one billion pounds of pesticides are used each year in the United States — 79% in agriculture.

496 pesticides can potentially leave residues on/in food.

400 pesticide active ingredients are designed "Food Use" by EPA.

Only 316 of the 496 pesticides that can leave residues on/in food have tolerances (maximum legal residues allowed) set by EPA.

Of the 316 pesticides with tolerances, only 41% can be detected by current testing methods for multiple residues.

293 pesticides with residue potential are not detected by 'any' current testing method that tests for more than one chemical at a time (called a multiresidue method).

34 of 76 (that is 44%) of the pesticides used on 'grapes' that had potential human health hazards, could not be detected by laboratory tests being used to check for residues.

A large number of food use pesticides with established tolerances are potential human carcinogens.

For most pesticides with already established tolerances, EPA lacks the data needed to determine safe residue limits.

Almost all food tolerances currently established have been done so without adequate toxicology.

Some of the data on which tolerances were established (including Captan), was provided by Industrial Biotest Laboratories (IBT) in Illinois. This laboratory was found to be reporting fraudulent data to EPA and was closed in 1977. Two of the toxicologists involved are serving jail terms.

GAO estimated that it will take EPA until well into the 21st century to make sure that all pesticides 'now' on the market meet current health and safety standards, and the safety of older tolerances and exemptions from tolerances have been assessed.

Therefore health risks related to most pesticide residues on food remain unknown.

It was stated repeatedly and emphatically that the Food and Drug Administration (FDA) is unable to prevent the marketing of adulterated food, that is, food contaminated with illegal pesticide residues.

It takes an average of 18 days for FDA to complete an analysis of a food being tested for pesticide residues. By the time the results are available, the food has been marketed and consumed.

In 1972 Congress passed an amendment to FIFRA (the Federal Insecticide Fungicide and Rodenticide Act) requiring that all pesticides currently on the market be 're-registered' using current health and safety standards.

Most pesticides were approved by the U.S. Department of Agriculture in the 1940s through the 1960s (EPA was formed in 1970). Little or no chronic effects testing was required. Congress gave EPA four years to complete re-registration.

In 1975 Congress extended the deadline for re-registration another four years, since EPA was so hopelessly behind.

In 1979 Congress gave up and deleted any deadlines but required that all missing toxicology data (called data gaps) be filled.

Of 92 pesticides selected for study by GAO in 1984, 62% had data gaps on tumors and 73% had data gaps on birth defects.

As of 1987, 15 years after Congress mandated that EPA re-register all pesticides, 'only one' pesticide registration standard has been completed.

EPA states that 145 pesticides have been re-registered. But all that was done was to check the files to see if the required studies had been submitted or not. 'EPA did not assess the adequacy of the data submitted in support of the registration of the pesticide'. They then notified the company that had registered the pesticide what data was missing. Nothing changed regarding the use of the pesticide.

Essentially then, 'all' pesticides now on the market do not have all the health and safety data required to determine their chronic health effects (such as cancer, birth defects, etc.) — that is, they all have data gaps.

In 1978 EPA allowed conditional registration of new chemicals without complete toxicological testing. This was supposed to be a 'rarely' applied remedy.

From 1978 to 1984 almost half of all 'new' pesticides registered were done so 'without' full testing according to current standards.

This was done for 44 of the 90 new pesticides registered (49%).

Therefore even 'new' pesticides registered have data gaps.

There has been no attempt by EPA to encourage the use of safer alternatives to toxic pesticides.

EPA has made no provision for updating and changing pesticide use based on new findings of adverse effects on humans or the environment.

No testing or toxicology data is required for inert ingredients which can make up the greatest percentage of a pesticide product.

FIFRA confidentiality provisions prohibit EPA from disclosing information on inert ingredients.

There are 1,200 chemicals regarded as inerts by EPA:

'All' of them are exempted from tolerances, 500 of them are used on food, 55 are considered to be of immediate concern due to their toxicity, another 55 are of suspected toxicological concern, and for 500 to 900 inert ingredients 'toxicity is unknown'.

---

#### Sources Used:

U.S. General Accounting Office: Pesticides, EPA's Formidable Task to Assess and Regulate Their Risks. GAO/RCED-86-125, Washington, D.C., April, 1986.

U.S. General Accounting Office: Pesticides, Better Sampling and Enforcement Needed on Imported Food. GAO/RCED-86-219, Washington, D.C., September, 1986.

U.S. General Accounting Office: Pesticides, Need to Enhance FDA's Ability to Protect the Public from Illegal Residues. GAO/RCED-87-07, Washington, D.C., October, 1986.

Copies of GAO reports can be obtained by calling 202/275-6241, or by writing:

U.S. General Accounting Office  
P. O. Box 6015  
Gaithersburg, MD 20877

The first five copies are free, additional copies are \$2.00 each.

# tion's Health

Exhibit # 14  
3-27-91 HB 637

THE OFFICIAL NEWSPAPER OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

ISSN: 0028-0496

## ing Case

### AIDS Panel; led to Group

The suit, citing requirements of the Federal Advisory Committee Act that such committees "be fairly balanced in terms of points of view represented and the functions to be performed," said the commission is not balanced because the interests of people most affected by the recommendations.

The groups' brief noted examples

See APHA...page 30.

### OTA Hits Inconsistency in US Carcinogen Regulations

The Office of Technology Assessment recently reported to Congress that the manner in which carcinogens are regulated—or not regulated—in this country is a maze of uncertainty, variation and often inaction or extremely slow action.

For example, according to the report, under the laws regulating pesticides, about 81 active cancers causing ingre-

dients have been found, but 47 of these ingredients have not been canceled.

The Toxic Substances Control Act was passed in 1976 to regulate both new and existing chemicals for toxicity. But only a small minority of new chemicals have test information presented about cancer, birth defects or mutagens in their premanufacture review notice

In addition, actions on existing chemicals have been limited, under the act. Even though the statute provides broad authority to restrict or ban substances, the Environmental Protection Agency has banned or proposed to ban only four substances.

In other examples, since the passage of the Occupational Safety and Health Act 16 years ago, the National Institute for Occupational Safety and Health has determined 71 different chemicals or processes to be cancer-causing and has made recommendations on controlling them. However, the Occupational Safety and Health

### APHA New Orleans Meeting: An Event-Filled Week

Almost 9,000 registrants enjoyed mostly balmy New Orleans weather for an event-filled week at the 115th APHA Annual Meeting in mid-October.

The meeting saw the US Presidential campaign come to APHA, for example, as Reverend Jesse Jackson gave a room packed with APHA participants his prescription for change in the health field and other candidates sent representatives.

#### Jesse Jackson Addresses Session

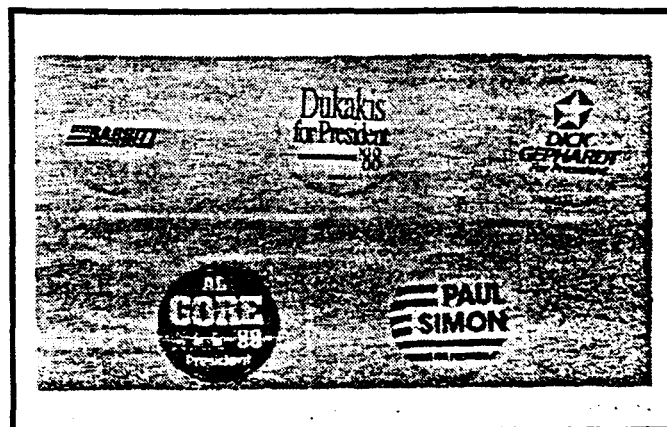
Jackson, addressing a session entitled, "Enough of Band Aids: The Need for a National Health Program," said that access to health care must be a basic right. He called for a universal and comprehensive national health plan. "If other industrialized countries can do it, so can we," Jackson asserted.

See New Orleans...page 7.

See Many...page 30.

### Five US Presidential Candidates Answer APHA's Questions

Of five front-runner Democratic candidates for President who answered an APHA questionnaire, only one predicted national health insurance in the near term or during the next administration. Other candidates' answers stated support of interim measures such as Senator Edward Kennedy's (D-MA) legislation to require employers to provide health insurance to all





53706. Application deadline is February 1 or until position is filled. The UW-Madison is an Equal Opportunity Employer and particularly encourages women, minority and handicapped applicants.

## Wyoming

**DISEASE CONTROL/PREVENTIVE HEALTH STATE PROGRAM MANAGER:** State of Wyoming, Department of Health & Social Services, Division of Health and Medical Services, Cheyenne, WY. Provides leadership and direction in the implementation of a statewide network of Disease and Environmental Health Programs. Also helps set policy standards and training for these programs. Requires MD degree with speciality training and experience in epidemiology or environmental health + 2 years experience in epidemiology or public health medicine, including some administrative medicine experience; Board certification in a speciality and/or a masters degree in public health is desirable but not required; other related training and experience may be evaluated for relevance for partial substitution of requirements. \$53,974 - \$62,606 annually depending on experience. Obtain and submit an official State Application from: DAFC Personnel, Emerson Building, 2001 Capitol Ave., Cheyenne, WY 82002-0060, (307) 777-7188.

## Foreign

**SOCIAL OR HEALTH SCIENTIST;** Mexico City. The Population Council is seeking a scientist for a two-year assignment beginning 1 January 1988. Responsible for developing and managing a regional research awards program focused on the social and medical determinants of maternal and child health and adolescent fertility. Qualifications: Doctoral degree in a social or health science, experience in the design and management of research activities, fluent in Spanish and English and writing ability in both languages. Salary: Low to mid 50's depending on qualifications. Excellent benefits. Forward letters of application to Ms. B. Joyner, Deputy for Personnel Services, The Population Council, One Dag Hammarskjöld Plaza, New York, NY 10017. An EEO/AAP Employer M/F. Women are especially encouraged to apply.

## Fill Jobs Fast

**Job opening announcements are available in The Nation's Health for \$1.00 per word. Ads should be at the Association's headquarters offices by the fifth of the month previous to the month they are to appear, to ensure publication.**

The challenge fund projects this year should focus on the 1988 Annual Meeting theme, "Technology and Public Health: Problems and Promise" or the 1989 program area emphasis which is

APHA groups should seek information on the mini-grants from Gazmararian, MPH, Scientific Program Coordinator, APHA, 1015 15th St., Washington, DC 20005.

# APHA Joins Suit on AIDS Commission

...from page 1.

such as Commissioner Dr. Theresa Crenshaw's advocacy of quarantining all AIDS patients; and statements of Commissioner Penny Pullen who reportedly accused homosexuals of practicing "blood terrorism" by deliberately donating contaminated blood.

Further, stated the brief, "Hundreds of researchers and health care providers have amassed a wealth of knowledge about AIDS and its effects on individuals and communities. Yet these people have been almost totally excluded from the Commission." The panel was set up to advise the President on all aspects of the epidemic and is due to report next summer, with a

preliminary report due December 7.

The National Academy of Sciences in its key report of the crisis called for an advisory panel.

The almost continual storm and battling within the commission since its inception this summer has far resulted in its Executive Director being forced to resign; and, in October the resignation of the original Chairman of the commission, W. Eugene McBerry, chief executive officer of Mayo Foundation in Rochester, Minnesota; and the resignation of Woodrow Myers who is the health commissioner of Indiana and has been specifically cited by the administration as giving the panel balance

# Many Known Carcinogens Are Unregulated, Agency Stresses

...from page 1.

Administration has addressed only 19 of these.

Most cases of cancer, the OTA notes, are not caused by exposure to the environmental carcinogens that these agencies regulate. Lifestyle factors, most obviously smoking, seem to be the greatest causes for cancer. However, OTA states, "those carcinogenic chemicals that can be identified specifically and can be controlled as important for those very reasons: they are avoidable....Furthermore, the potential for introducing new potent carcinogens is very real."

In some cases where substances known or suspected to be carcinogenic are not regulated, OTA points out, the regulatory agencies have determined that the risks are low and that there is no need to regulate. In other cases, the agency is still gathering toxicity data and other information. But, says

OTA, "Finally, there probably are cases in which the necessary data have been collected, the analyses have been performed, and the agency staff are simply waiting for decision whether to regulate."

What is the answer for the future? Congress might pass a law requiring the agencies to regulate these carcinogens or at least publicly respond with information that a substance is a carcinogen, OTA says.

On the other hand, says OTA, "Congressional deadlines and mandates may force action, but also may divert regulatory agencies from chemicals and regulations more in need of regulation."

The report is "Identifying and Regulating Carcinogens," and it is for sale for \$11.00 from the Government Printing Office, Washington, DC 20402-9325. GPO stock number 052-003-01080-1.

# Nation's Health

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987

## Group is Petition for Testing Requirement

# Neurotoxic Effects of Pesticides Called Critical Risk to Health

The Center for Science in the Public Interest (CSPI) asserted recently that most health effects caused by pesticides are effects on the nervous system and yet almost no testing for nervous system effects is done.

CSPI was joined by APHA, the Natural Resources Defense Fund, the American Psychological Association and eight other groups in a petition to the Environmental Protection Agency to require that pesticides be evaluated for their neurotoxic and neurobehavioral effects.

"All of the commonly used home and garden insecticides and weed-killers, such as 2,4-D, Sevin and mosquito repellents have the potential for causing nervous system and psychological problems," said Eileen R. Choffnes, DrPH, toxicologist with CSPI's Environment and Behavior Project. "Though many pesticides are expressly designed to attack the nervous system of pests, few have been evaluated for the risks they pose to the human nervous system," she said. Asserting that neurotoxic chemicals

are among the most critical environmental hazards today, the CSPI petition said that by reacting with the brain and nervous system the substances can induce disorders ranging from memory loss and slowed reflexes to bizarre behaviors, convulsions and paralysis.

The regulations called for in the petition would require pesticide manufacturers to study laboratory animals to determine if the chemicals affect unlearned behavior such as curiosity

See *Neurobiological*, page 10.

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# Neurobehavioral Tests on Pesticides Urged

...from page 1.

or normal reflexes; learned behavior such as maze running; or the nervous system itself, which is examined after the animal's death, according to Choffnes.

## Could Some Senility Be Caused by Chemicals?

In an interview on National Public Radio, Philip Landrigan, director of the Environmental Science Laboratory at Mount Sinai Medical Center in New York, said, "One question that needs badly to be examined is to find out what proportion of the people who clinically are diagnosed as having Alzheimer's disease or senility may, in fact, have neurologic disease that's caused by a chemical exposure. We don't know if it is one percent or five percent or twenty percent of people with Alzheimer's disease, but it's certainly a question that needs badly to be looked into."

Requirements for expanded neurobehavioral testing were included in both the House and the Senate versions of the reauthorization of EPA's pesticide legislation considered last year. The legislation (Federal Insecticide, Fungicide and Rodenticide Act, or FIFRA) failed to pass due to controversy unrelated to this provision.

It is scheduled for re-introduction in this congress

EPA officials say they will be looking at the petition in coming weeks. Theodore Farber, EPA Chief of Pesticide Toxicology, was quoted as saying the testing would be too expensive, an idea Choffnes contradicts. Farber recently said that procedures EPA

*Records indicate that there are hundreds of millions of instances of pesticide health effects across the US each year, according to the Center for Science in the Public Interest.*

put forth in February would cover some of the things requested in the petition, although the EPA plans would not be as comprehensive.

## Hundreds of Thousands Of Health Effects

The problem is urgent, said Choffnes, because records kept in California indicate that there are hundreds of thousands, if not millions of in-

stances of pesticide health effects across the US each year, and most of them are neurological, she said. The estimates are extrapolated from California because that state makes pesticide-caused problems a reportable illness. A voluntary nationwide system for monitoring pesticide health effects was ended during the federal cutbacks of the early 1980s, Choffnes notes.

Neurotoxic testing is also urgent, she contends, because of the ubiquitous potential for exposure. With unskilled home use of pesticides and energy efficient buildings that hold chemicals in, the domestic exposure problem is much greater than that of occupational exposure, she said.

## Neurological Testing Shortchanged, Says CPSI

Why, if most health effects of pesticides are nervous system effects, are the chemicals not tested for those effects? Choffnes says that after the last major re-working of FIFRA legislation was passed in 1972 and the EPA began setting requirements for testing, the health effects getting most attention were cancer, mutations and birth defects. Thus nervous disorders got shortchanged, she said.

In the meantime, according to the petition, the National Academy of Sciences, the American Societies for Experimental Biology, and other have called for such testing. Similar testing is being done in other countries and EPA's Office of Toxic Substances has finalized guidelines for neurobehavioral evaluation of some chemicals regulated under the Toxic Substances Control Act.

Currently, the CSPI petition notes there is only one neurotoxicity test for pesticides provided for in EPA regulations. That one, which judges whether a chemical may induce delayed paralytic reaction, has only been used to test a small group of insecticides known as organophosphorus compounds.

According to estimates, there are 55,000 pesticides on the market made up of about 600 active ingredients. The CSPI petition asks the inert as well as active ingredients be tested, since, as Choffnes notes, the "inert" ingredients often make up the majority of compounds and are sometimes volatile substances that are known or suspected of being harmful to health.

The Center for Science in the Public Interest is at 1501 16th St., N.W. Washington, DC 20036.

# Cancer in Humans and Potential Occupational and Environmental Exposure to Pesticides

## Selected Epidemiological Studies and Case Reports

by Marion Moses, MD

**Editor's note:** The following abstracts are a compendium of data resources for additional information on the topic of minority workers.

### MORTALITY STUDIES

**Alavanja, MCR, Rush, GA, Stewart P, et al.** Proportionate mortality study of workers in the grain industry. *Journal of the National Cancer Institute* 1987; 78(2):247-252.

A proportionate mortality study of 1,114 members (all white males) of the American Federation of Grain Millers union who died between 1968-83, compared to the U.S. population. Statistically significant increased risk was found for *pancreatic cancer* (PMR\* 191, PCMR of 171 was not significant), and other *lymphoma* (PMR 272 PCMR 249).

Nonsignificant elevated ratios were found for stomach cancer (PMR 141, PCMR 121), bladder cancer (PMR 178, PCMR 155), lymphosarcoma (PMR 216, PCMR 191), Hodgkin's disease (PMR 174, PCMR 153), and leukemia (PMR 170, PCMR 139). Potential pesticide exposures included methyl bromide, ethylene dibromide, carbon tetrachloride, phosphine, and malathion, among others.

**Alavanja, MCR, Malke, H, Hayes, RB.** Occupational cancer risk associated with the storage and bulk handling of agricultural foodstuff. *Journal of Toxicology and Environmental Health* 1987; 22(3):247-254.

A study of cancer incidence in 2,649 Swedish grain millers (all white males) between 1961-79, compared to the Swedish general population. Statistically significant increased risk was found for *liver cancer* (SIR 238).

Nonsignificant increased ratios were found for cancer of the stomach (SIR 103), colon (SIR

116), kidney (SIR 113), bladder (SIR 125), other lymphoma (SIR 137), and multiple myeloma (SIR 139).

**Barthel, E.** Increased risk of lung cancer in pesticide-exposed male agricultural workers. *Journal of Toxicology and Environmental Health* 1981; 8:1027-1040.

A proportionate mortality study of 1,658 agricultural pesticide sprayers in East Germany, 169 of whom died between 1948-78, compared to the general population (excluding Berlin). Statistically significant increased risk was found for *lung cancer* (PCMR 180).

Nonsignificant elevated risk was found for cancer of the pancreas (PCMR 146), bladder (PCMR 118) and other genitourinary cancer (PCMR 186). Potential pesticide exposures included Zineb, Maneb, Atrazine, Simazine, Amitrole, arsenic, DDT, Lindane, methyl parathion, toxaphene, DNOC, 2,4-D, 2,4,5-T, among others.

**Blair, A, Grauman, DJ, Lubin, JH.** Lung cancer and other causes of death among licensed pesticide applicators. *Journal of the National Cancer Institute* 1983; 71(1):31-37.

A mortality study of 1,827 pest control operators licensed in Florida during 1965-66, of whom 378 had died as of January 1, 1977. For those with 20 or more years latency, statistically significant increased risk was found for *lung cancer* (SMR 289), and a nonsignificant elevation for all cancers (SMR 177).

For the entire cohort, nonsignificant elevated risk was found for all cancers (SMR 114), lung cancer (SMR 135) and brain cancer (SMR 200). Potential pesticide exposures included Aldrin, Chlordane, DDT, heptachlor, toxaphene, lindane, chlorpyrifos, diazinon, malathion, dichlorvos, carbaryl, propoxur, bendiocarb, 2,4-D, 2,4,5-T, Paraquat, pentachlorophenol, Captan, folpet, arsenic, methyl bromide, and paradichlorobenzene.

**Burmeister, LF.** Cancer mortality in Iowa

farmers, 1971-78. *Journal of the National Cancer Institute* 1981; 66(3):461-464.

A mortality study of 6,402 Iowa farmers who died between 1971 and 1978, compared to 13,809 nonfarmers. Statistically significant increased risk for farmers was found for cancer of the *stomach* (SMR 135), *colon* (SMR 122), *pancreas* (SMR 123), *skin* (SMR 131), *prostate* (SMR 141), *bladder* (SMR 114), *kidney* (SMR 122), *lip* (SMR 206), *Hodgkin's disease* (SMR 137), *leukemia* (SMR 135), *other lymphoma* (SMR 129) and *multiple myeloma* (SMR 147).

Nonsignificant elevated ratios were found for: bone cancer (SMR 126), and brain cancer (SMR 111).

**Carlson, ML, Petersen, GR.** Mortality of California agricultural workers. *Journal of Occupational Medicine* 1978; 20(1):30-32.

A mortality study in California comparing 2,936 farm laborers with 908 farm operator/managers who died between 1959-61, using state health department tapes indexing death to occupation.

A nonsignificant elevated mortality rate ratio between laborers and managers for all cancers of 1.13 was found.

**Coggon, D, Pannett, B, Winter, PD, et al.** Mortality of workers exposed to 2 methyl-4 chlorophenoxyacetic acid. *Scandinavian Journal of Work, Environment and Health* 1986; 12:448-454.

A mortality study of 5,754 workers (all white males) who both manufactured and sprayed MCPA as well as other pesticides from 1947 to 1975 for the same British company. As of December 1983, there were 1,039 deaths, 297 from cancer. Statistically significant increased risk compared to the general rural population was found for *nasal cancer* (SMR 493).

Nonsignificant elevated ratios were found for all cancer (SMR 107), cancer of the tongue (SMR 112), digestive system (SMR 273), colon (SMR 102), larynx (SMR 174), lung (SMR 115), nonmelanoma skin (SMR 306), prostate (SMR 132), testes (SMR 223), brain (SMR 124), thy-

\*See Figure at the end of article for abbreviations.

roid (SMR 170), nonbladder genitourinary (SMR 227), small intestine (SMR 159), gallbladder (SMR 119), leukemia (SMR 177), multiple myeloma (SMR 162) and soft-tissue sarcoma (SMR 104). Additional potential pesticide exposures included DNOC, copper oxochloride, a variety of organophosphorous insecticides, chlorthiazine herbicides, and 2,4,5-T.

**Delzell, W, Grufferman, S. Mortality among white and nonwhite farmers in North Carolina, 1976-1978. *American Journal of Epidemiology* 1985; 121(3):391-402.**

A mortality study in North Carolina of 9,245 white and 3,508 non-white (94% black) farmers who died between 1976-78, compared to the general population of the state. Statistically significant increased risk was found in white farmers for *nonmelanoma skin* cancer (PMR 180) and in non-white farmers for *melanoma skin* cancer (PMR 630) and *leukemia* (PMR 190).

Nonsignificant elevated ratios were found in white farmers for melanoma (PMR 120), prostate cancer (PMR 110); and in non-white farmers for brain cancer (PMR 230) and other lymphoma (PMR 120).

**Fasal, E, Jackson, EW, Klauber, MR. Leukemia and lymphoma mortality and farm residence. *American Journal of Epidemiology* 1968; 87:267-274.**

A mortality study of 1,857 farmers in California who died between 1959-61, compared to nonfarmers in the state.

Nonsignificant elevated ratios were seen in both males and females for leukemia (PMR 114), and in females for Hodgkin's disease (PMR 109), and multiple myeloma (PMR 102).

**Gallagher, RP, Threlfall, WJ, Spinelli, JJ, et al. Occupational mortality patterns among British Columbia farmworkers. *Journal of Occupational Medicine* 1984; 26(12):906-908.**

A proportionate mortality study of 28,032 British Columbia farmworkers (all males) who died between 1950-78.

Nonsignificant elevated ratios were found for cancer of the stomach (PCMR 126), pancreas (PCMR 124), and prostate (PCMR 109).

**Gallagher, RP, Threlfall, WJ, Jeffries, E, et al. Cancer and aplastic anemia in British Columbia farmers. *Journal of the National Cancer Institute* 1984; 72(6):1311-1315.**

A proportionate mortality study of 28,032 farmers in British Columbia (all males) who died between 1950-78. Statistically significant increased risk was found for cancer of the *stomach* (PCMR 119), *pancreas* (PMR 112, PCMR 105 not significant), *prostate* (PCMR 113), *lip* (PCMR 191), *leukemia* (PCMR 122), *nasal cancer*

(PMR 186, PCMR 178 not significant), and *aplastic anemia* (PMR 186, PCMR 178 not significant).

A nonsignificant increased ratio was found for multiple myeloma (PCMR 103).

**Mabuchi, K, Lilienfeld, AM, Snell, LM. Cancer and occupational exposure to arsenic: A study of pesticide workers. *Preventive Medicine* 1980; 9:51-77.**

A mortality study of 3,141 hourly and salaried men and women who worked four months or more between 1946-74 at a pesticide manufacturing plant in Baltimore, Maryland. As of August, 1977, there were 240 deaths, 56 from cancer. In males, compared to the U.S. general population, statistically significant increased risk was found for *all cancers* (SMR 168), and *lung* cancer (SMR 265).

Nonsignificant increased ratios were found for oral cancer (SMR 201), cancer of the esophagus (SMR 451), stomach (SMR 172), skin (SMR 162) and lymphopoietic cancer (SMR 209). The number of female cancer deaths was too small for significance testing; however, an elevated ratio was found for *rectal* cancer (2 observed vs. 0.4 expected). Potential pesticide exposures included lead and calcium arsenate, sodium, zinc and magnesium arsenite, copper acetoarsenite (Paris green), DDT, Aldrin, toxaphene, chlordane, various organophosphates, various carbamates, 2,4-D, monuron-TCA, and other organic herbicides.

**Riihimäki, V, Asp, S, Hernberg, S. Mortality of 2,4-dichlorophenoxy acetic acid and 2,4,5-trichlorophenoxyacetic acid herbicide applicators in Finland. First report of an ongoing prospective study. *Scandinavian Journal of Work, Environment and Health* 1982; 8:37-42.**

A mortality study of 1,926 Finnish pesticide sprayers who worked for two weeks or more between 1955-71 as applicators of 2,4-D and 2,4,5-T. As of 1980, 144 had died, 26 from cancer.

Nonsignificant elevated ratios were found for cancer of the esophagus/stomach (SMR 108, based on 4 cases), lung cancer (SMR 108, 12 cases), prostate cancer (SMR 182, 2 cases) and multiple myeloma (SMR 500, 1 case).

**Seftlas, AF, Blair, A, Cantor, KP, et al. Cancer and other causes of death among Wisconsin farmers. *American Journal of Industrial Medicine* 1987; 11:119-129.**

A proportionate mortality study of 35,972 Wisconsin farmers (all white males) who died from 1968-76, compared to the general U.S. general population and to nonfarmers in Wisconsin (excluding Milwaukee). Statistically significant increased risk was found for cancer of the *stomach* (PMR 124, PCMR 113), *pancreas* (PMR 110, PCMR 98), *prostate* (PMR

122, PCMR 114), *ov* (PMR 375, PCMR 343), *lymphosarcoma* (PMR 125, PCMR 110 not significant), *Hodgkin's disease* (PMR 155, PCMR 126 not significant), *other lymphoma*, two thirds of which were *multiple myeloma* (PMR 123, PCMR 110 not significant), *lymphopoietic cancer* (PMR 123, PCMR 110), and *leukemia* (PMR 120, PCMR 109 not significant).

Elevated ratios not statistically significant were found for cancer of the rectum (PMR 113), bone (PMR 105), skin (PMR 115), testes (PMR 103), kidney (PMR 106), and brain (PMR 110).

**Shindell, S, Ulrich, S. Mortality of workers employed in the manufacture of Chlordane: An update. *Journal of Occupational Medicine* 1986; 28(7):4987-501.**

A mortality study of 800 persons who worked three months or more from 1946-85, at the only plant that manufactures chlordane in the U.S. (Velsicol plant in Illinois). 181 deaths were traced, 37 from cancer. No statistically significant increased risks were found. Of the 37 cancers, 12 were *lung* (SMR 86), 4 *colon/rectal*, 3 *stomach*, 2 *pancreas*, 2 *renal*, 9 of different types (not specified) and 5 of unknown type.

**Infante, PF, Freeman, C. Cancer mortality among workers exposed to chlordane (letter). *Journal of Occupational Medicine* 1987; 29(11):908-909.**

A critique of the Shindell mortality study of chlordane workers.

**Shindell, S. Cancer mortality among workers exposed to Chlordane (letter). *Journal of Occupational Medicine* 1987; 29(11):909-911.**

A reply to the critique by Infante and Freeman.

**Stubbs, HA, Harris, J, Spear, RC. A proportionate mortality analysis of California agricultural workers, 1978-1979. *American Journal of Industrial Medicine* 1984; 6:305-320.**

A proportionate mortality study in California of 7,504 farmworkers and 7,404 farm owners/managers who died between 1978-79, compared to the state's general population. Statistically significant increased risk was found in white (includes Hispanics) farmworkers for cancer of the *stomach* (PCMR 134), and in non-whites for *brain* cancer (PCMR 155).

Nonsignificant elevated ratios were found in white farmworkers for oral cancer (PCMR 111), cancer of the esophagus (PCMR 121), liver and gallbladder (PCMR 145), larynx (PCMR 129), lung (PCMR 108), bone (PCMR 159), prostate (PCMR 101), other lymphoma (PCMR 107); and in non-whites for cancer of the esophagus (PCMR 115), stomach (PCMR 101), rectum (PCMR 190), liver and gallbladder (PCMR 151).

and other lymphoma (PCMR 114).

Statistically significant increased risk in white farm owner/managers was found for cancer of the *prostate* (PCMR 122) and *other lymphoma* (PCMR 150) and in non-whites for cancer of the *stomach* (PCMR 202), and *rectum* (PCMR 224).

Nonsignificant elevated ratios were found in white farmer managers for cancer of the *stomach* (PCMR 109), *rectum* (PCMR 109), *liver* (PCMR 137), *larynx* (PCMR 111), *skin* (PCMR 130), *kidney* (PCMR 102) and *lymphopoietic* (PCMR 105), and in non-whites for cancer of the *esophagus* (PCMR 127), *colon* (PCMR 107), *liver* (PCMR 150), *other lymphoma* (PCMR 127) and *lymphopoietic cancer* (PCMR 108).

**Wang, HH, MacMahon, B. Mortality of pesticide applicators. *Journal of Occupational Medicine* 1979; 21(11):741-744.**

A mortality study using the personnel records of three nationwide pest control companies based in Atlanta, Memphis, and Tucson with members in 40 states, of 16,126 members (all males) employed for three months between 1967-76, and who died in this time period. 311 deaths ascertained, of which 47 were from cancer.

Nonsignificant elevated ratios were found for cancer of the *lung* (SMR 115), *skin* (SMR 173), and *bladder* (SMR 277). Potential pesticide exposures included chlordane, heptachlor, as well as a variety of fumigants, botanicals, carbamates, organophosphates, and other chlorinated hydrocarbons.

**Wiklund, K. Trends in cancer risks among Swedish agricultural workers. *Journal of the National Cancer Institute* 1986; 77(3):657-664.**

A prospective study of the time related trends from 1961 to 1979 in the incidence of cancer in 254,417 Swedish males aged 20 to 69 employed in agriculture in 1960, compared to 1,725,845 controls. Statistically significant increased risk in agricultural workers was found for cancer of the *lip* (SMR 192), *skin* (SMR 115), *stomach* (SMR 107), *malignant melanoma* (SMR 139), and *multiple myeloma* (SMR 120). A trend for increasing risk over three time periods (1967-73, 1974-79, 1974-79) was found for cancer of the *lip*, *liver*, *prostate*, *nasal* and *genitourinary* cancer.

**Wiklund, K. Testicular cancer among agricultural workers and licensed pesticide applicators in Sweden. *Scandinavian Journal of Work, Environment and Health* 1986; 12:630-631.**

A prospective study of the incidence of testicular cancer in 254,417 Swedish men employed in agriculture as determined by a 1960 census. Compared to controls a nonsignificant trend for

increasing risk of testicular cancer over time was found—an SMR of 83 in 1961-66 increased to 94 in 1967-73, and to 135 in 1974-79. Eighteen cases of testicular cancer were found in a cohort of 20,245 pest control operators licensed between 1965 and 1976, with 11.6 expected (SMR 155), which was not significant.

**Wong, O, Brocker, W, Davis, HV, et al. Mortality of workers potentially exposed to organic and inorganic brominated chemicals, DBCP, TRIS, PBB and DDT. *British Journal of Industrial Medicine* 1984; 41:15-25.**

A mortality study of 3,579 workers (all males) employed between 1935 and 1976 in three chemical manufacturing plants, two in Michigan, one in Arkansas. Of 541 who had died as of December, 1976, 112 were from cancer.

Nonsignificant elevated ratios were found for all cancer (SMR 102), cancer of the *liver* (SMR 124), *lung* (SMR 131), *prostate* (SMR 164), *testes* (SMR 193), *bladder* (SMR 188), *kidney* (SMR 145), *brain* (SMR 132), *leukemia* (SMR 187), and *lymphoctic cancer* (SMR 111). The mortality from testicular cancer was significantly higher (SMR 1799, based on two cases) in workers whose common exposure was to methyl bromide. Potential chemical exposures included DBCP, methyl bromide, ethyl bromide, bromochlorobenzene, chlorobromomethane, sodium and potassium bromide, PCBs, PBBs, Tris, and DDT.

## CASE-CONTROL STUDIES

**Austin, H, Delzell, E, Grufferman, S, et al. Case-control study of hepatocellular carcinoma, occupation and chemical exposures. *Journal of Occupational Medicine* 1988; 29:665-669.**

A case-control study of 86 persons aged 18 to 84 at one of five medical centers (Alabama, Duke, Miami, Pennsylvania, and Harvard) with *primary liver cancer*, 60 men and 26 women; compared to 146 controls with other cancers (except those related to smoking).

Nonsignificant elevated risk was found for pesticide exposure (RR 2.1), employment in agriculture (RR 1.1), employment in livestock agriculture (RR 1.5), and occupation as farmer or farmworker (RR 1.4). No consistent trend between years of farming and risk for liver cancer was found.

**Blair, A, Thomas, TL. Leukemia among Nebraska farmers: A death certificate study. *American Journal of Epidemiology* 1979; 110(3):264-273.**

A case-control study in Nebraska of 1,084 white males who died of leukemia from 1957-74, compared to 2,168 deaths from other cancers. Statistically significant increased risk

for *leukemia* was found in farmers (OR 1.25), with the risk being higher for those born after 1900 (OR 1.64), and even higher for those from high insecticide use counties (OR 1.95).

**Blair, A, White, DW. Leukemia cell types and agricultural practices in Nebraska. *Journal of Occupational Medicine* 1985; 40(4):211-214.**

A further analysis of the above study of Nebraska farmers in which it was found that farmers from high pesticide and fertilizer-use counties tended to be at higher risk of *acute lymphatic*, *acute myeloid*, *chronic myeloid*, and *acute unspecified leukemia* than farmers from low use counties.

**Blair, A, Everett, G, Cantor, K, et al. Leukemia and farm practices (abstract). *American Journal of Epidemiology* 1985; 122:535.**

A population-based case-control study in Iowa and Minnesota of 578 cases of histologically confirmed *leukemia* in white males aged 30 or older who died between 1980-1983, compared with 1,245 who died of other causes. More cases than controls reported use of dichlorvos on animals (OR 1.8). Pesticides used more frequently by cases than controls included Ethoprop (OR 1.9), nicotinic (OR 1.6), Methoxychlor (OR 1.5), and DDT (OR 1.4).

**Brown, LM, Pottern, LM. Testicular cancer and farming (letter). *Lancet* 1984; 1:1356.**

A case-control study, using death certificates only, from three Washington, D.C. medical centers, of 271 *testicular cancer* cases, aged 18 to 42 and diagnosed between 1976-1981. Compared to 259 controls with other cancers, a small increase in risk that was statistically significant (OR 1.4) was found for current farmers who grew up in the south.

**Burmeister, LF, Van Lier, SF, Isacson, P. Leukemia and farm practices in Iowa. *American Journal of Epidemiology* 1982; 115(5):720-728.**

A case-control study in Iowa of 1,675 white males over age 30 who died of leukemia between 1964-78, compared to 3,350 controls. Farmers had a statistically significant elevated risk for *leukemia* (OR 1.24), even higher in those who died between 1971-78 (OR 1.39). Significant excess mortality was also seen in high herbicide use counties for those born after 1900 (OR 1.60).

**Burmeister, LF, Everett, GD, Van Lier, SF, et al. Selected cancer mortality and farm practices in Iowa. *American Journal of Epidemiology* 1983; 118(1):72-77.**

A case-control study in Iowa of 8,290 white males who died of cancer from 1964-78, (4,827

prostate, 1.812 stomach, 1.101 nonHodgkin's lymphoma, 550 multiple myeloma). Farmers were found to have statistically significant excess mortality from *multiple myeloma* (OR 1.5), *nonHodgkin's lymphoma* (OR 1.3), *stomach cancer* (OR 1.3) and *prostate cancer* (OR 1.2).

**Cantor, K, Everett, G, Blair, A, et al. Farming and nonHodgkin's lymphoma (abstract). *American Journal of Epidemiology* 1985; 122(3):535.**

A case-control study of 622 Iowa and Minnesota white males, aged 30 or more who died of nonHodgkin's lymphoma between 1980-1983, compared to 1,245 men who died of other causes. A suggestion of excess mortality for farmers from *small cell lymphocytic lymphoma* (RR 1.35) was found, especially in those reporting use of high volume pesticides 20 or more years prior. Increased risk was associated with exposure to nicotine (OR 2.0), lindane (OR 1.9), 2,4,5-T (OR 1.9), glyphosate (Roundup) (OR 1.9), atrazine (OR 1.6), and Cyanazine (OR 1.6). Evidence of elevated risk of all types of nonHodgkin's lymphoma was found for uses of DDT (OR 1.5), chloramben (OR 2.2) and Carbofuran (OR 1.6).

**Cantor, KP, Blair, A. Farming and mortality from multiple myeloma: A case-control study with the use of death certificates. *Journal of the National Cancer Institute* 1984; 72(2):251-255.**

A case-control study of 411 deaths from multiple myeloma in Wisconsin white males (except Milwaukee), aged 30 or more who died from 1968-76, compared to 725 controls with smoking-related causes of death excluded. Statistically significant excess mortality was found in the farmers for *multiple myeloma* (OR 1.4), which was greater in those 65 and older (OR 1.5), and for those who died between 1968-70 (OR 1.9). Significant association with pesticide use was found for high insecticide use counties for those born after 1905 (OR 2.8).

**Everett, G, Blair, A, Cantor, K, et al. Environmental chemical exposures as risk factors for leukemia and non-Hodgkin's lymphoma (abstract). *American Journal of Epidemiology* 1985; 122(3):535-536.**

A population-based case-control study in Iowa and Minnesota based on interviews of 1200 white males (or their proxies) diagnosed with leukemia and nonHodgkin's lymphoma between 1980-1983. Statistically significant increased risk of *leukemia* was associated with exposure to insecticides (OR 1.5) and herbicides (OR 1.86). Significant increased risk for *nonHodgkin's lymphoma* was associated with exposure to methyl bromide (OR 2.82), insecticides (OR 1.9), herbicides (OR 2.06), and pentachlorophenol (OR 1.86).

**Hoar, SK, Blair, A, Holmes, FF, et al. Agricultural herbicide use and risk of lymphoma and soft-tissue sarcoma. *Journal of the American Medical Association* 1986; 256(9):1141-1147.**

A population-based case-control study of 442 white male Kansas residents aged 21 or older diagnosed with soft-tissue sarcoma, Hodgkin's disease, and nonHodgkin's lymphoma from 1976 through 1982, compared to 948 controls from the general population of the state.

Nonsignificant increased risk of non-Hodgkin's lymphoma was associated with herbicide use (OR 1.6).

Statistically significant increased risk was found for those exposed to herbicides more than 20 days a year (OR 6.0), and frequent users who mixed or applied the herbicides themselves (OR 8.0). The excess mortality was associated with use of phenoxyherbicides, specifically 2,4-D (OR 2.2). Neither soft-tissue sarcoma nor Hodgkin's disease were found to be related to herbicide exposure.

**Colton, T. Herbicide exposure and cancer. *Journal of the American Medical Association* 1986; 256:1176-1178.**

Editorial comments on the study described above.

**McDowall, M, Balaraman, R. Testicular cancer and employment in agriculture (letter). *Lancet* 1984; 1:510-511.**

Preliminary data from a case-control study in progress, using death certificates, of 2,434 males over age 15 who died from testicular cancer in England and Wales from 1971 to 1980. Agricultural workers were found to be at increased risk of *testicular cancer* (OR 1.42), the risk being significant in farmers and farm managers (OR 1.85), but not in farmworkers (OR 0.9).

**Milham, S. Jr. Leukemia and multiple myeloma in farmers. *American Journal of Epidemiology* 1971; 91(1):307-310.**

A case-control study based on a previous occupational mortality study, confined to leukemia/lymphoma group of cancers of 4,444 farmers compared to an equal number of controls using occupation as stated on death certificates in state files in Oregon and Washington. Statistically significant increased risk in farmers for *multiple myeloma* and *leukemia* was found (based on chi-square analyses of frequencies).

**Mills, PK, Newell, GR, Johnson, DE. Testicular cancer associated with employment in agriculture and oil and natural gas extraction. *Lancet* 1984; 1:207-209.**

A case-control study of 347 patients with histologically confirmed germ-cell testicular

cancer diagnosed at M.D. Anderson Hospital in Houston, Texas, between 1977-1980. Statistically significant increased risk for *testicular cancer* was found to be associated with agricultural employment (OR 4.18), and was even higher for those whose present occupation was in farming (OR 6.27).

**Mills, PK, Newell, GR. Testicular cancer risk in agricultural occupations (letter). *Journal of Occupational Medicine* 1984; 26(11):798-799.**

A brief discussion of testicular cancer as found in other studies and the author's findings as described above.

**Morris, PD, Koepsell, TD, Daling, JR, et al. Toxic substance exposure and multiple myeloma: A case-control study. *Journal of the National Cancer Institute* 1986; 76(6):987-994.**

A case-control study from SEER (Surveillance Epidemiology and End Results) cancer registry data in selected counties in the states of Washington and Utah, and in metropolitan Detroit and Atlanta, of 698 cases of *multiple myeloma* newly diagnosed between 1977-1981, compared to 1,683 controls from the general population of the four study areas. Of the 20 exposure categories studied, the highest risk was for subjects who reported past exposure to pesticides (OR 2.6), which was statistically significant. In those cases where exposure was self-reported the risk was even higher (OR 2.9).

**Musicco, M, Filippini, G, Bordo, BM, et al. Gliomas and occupational exposure to carcinogens: Case-control study. *American Journal of Epidemiology* 1982; 116(5):782-790.**

A case-control study in Milan, Italy, of 42 cases of *primary brain cancer*, compared to 42 patients with other neurological disease at the same institute. Farmers were found to be at increased risk for *glioma* (OR 5.0).

**Nandakumar, A, Armstrong, BK, deKlerk, NH. Multiple myeloma in Western Australia: A case-control study in relation to occupation, father's occupation, socioeconomic status, and country of birth. *International Journal of Cancer* 1986; 37:223-226.**

A case-control study in Western Australia of 249 deaths from multiple myeloma between 1975-1984, compared to 996 control who died from other causes.

Statistically nonsignificant increased risk for multiple myeloma was found in farmers (OR 1.36). No relationship was found with farming as the father's occupation (OR 0.88).

**Pearce, NE, Smith, AH, Howard, JK, et al.**



**NonHodgkin's lymphoma and exposure to phenoxyherbicides, chlorophenols, fencing work, and meat works employment: A case-control study.** *British Journal of Industrial Medicine* 1986; 43:75-83.

A case-control study in New Zealand of 83 cases of adult males with nonHodgkin's lymphoma, diagnosed between 1977-1981, compared to 168 controls with other cancers and 228 general population controls.

Nonsignificant increased risk for non-Hodgkin's lymphoma was found for farmers exposed to chlorophenols (OR 1.4), for fencing work (OR 2.0), and meat works employment (OR 1.8), with greatest risk for employment in both activities (OR 5.7).

**Pearce, NE, Smith, AH, Fisher, DO. Malignant lymphoma and multiple myeloma linked with agricultural occupations in a New Zealand cancer registry-based study.** *American Journal of Epidemiology* 1985; 121(2):225-237.

A case-control study in New Zealand of 734 white males aged 20 or older who died from lymphoma and multiple myeloma between 1977-1981, compared to 2,986 deaths from other cancers.

A nonsignificant increased risk of lymphoma and multiple myeloma was associated with agricultural occupation (OR 1.25).

Statistically significant increased risk for lymphoma and multiple myeloma was found for orchard farming (OR 5.51); for nonHodgkin's lymphoma in farmers diagnosed before age 65 (OR 1.76) and for multiple myeloma as well (OR 2.22).

**Schumacher, MC. Farming occupations and mortality from nonHodgkin's lymphoma in Utah: A case-control study.** *Journal of Occupational Medicine* 1985; 27(8):580-584.

A case-control study in Utah of 228 white males who died from nonHodgkin's lymphoma between 1967-1982, compared with 293 deaths from colon cancer. Statistically significant increased risk of nonHodgkin's lymphoma was found for farmers diagnosed between 1952-65 (OR 6.6) and between 1966-71 (OR 3.1). Elevated risk ratios were also found for rural versus urban residence for 1952-1966 (OR 3.3), 1966-71 (OR 3.4), 1972-77 (OR 2.4), but none were significant.

**Stemhagen, A, Slade, J, Altman, R, et al. Occupational risk factors and liver cancer.** *American Journal of Epidemiology* 1983; 117(4):443-454.

A case-control study in New Jersey of 265 cases of primary liver cancer, diagnosed between 1975 and 1979, compared to 265 cases selected from hospital records and 265 cases selected from state death certificate records.

Statistically significant increased risk of liver cancer was found associated with agriculture (RR 2.08), agricultural production or services (RR 2.08), and for occupation of farm laborer (RR 1.89). Nonsignificant elevated ratios were found for horticulture (RR 1.83), and in farm owner/managers (RR 1.23).

**Vineis, P, Terracini, B, Ciccone, G, et al. Phenoxy herbicides and soft-tissue sarcomas in female rice weeder: A population-based case-referent study.** *Scandinavian Journal of Work, Environment and Health* 1986; 13:9-17.

A case-control study in three rice-growing provinces of northern Italy of 68 cases (31 females) of soft-tissue sarcoma diagnosed between 1981-1983, compared to 158 population-based controls (73 females). Fifteen (40.5%) of the male cases had worked in agriculture compared to 26 (30.5%) of the controls. Fourteen (45%) of the female cases had worked in agriculture compared to 21 (28.5%) of the controls. Of the living women, exposure to phenoxy herbicides increased risk (OR 2.7), but not in living men (OR 0.91).

**Woods, JS, Polissar, L, Severson, RK, et al. Soft-tissue sarcoma and nonHodgkin's lymphoma in relation to phenoxyherbicide and chlorinated phenol exposure in western Washington.** *Journal of the National Cancer Institute* 1987; 78(5):899-910.

A case-control study in 13 counties of western Washington state of 128 cases of soft-tissue sarcoma, and 576 cases of nonHodgkin's lymphoma, in males aged 20 and older who were diagnosed between 1981-1984, compared to 694 controls without cancer. Statistically significant increased risk for nonHodgkin's lymphoma was found for farmers (OR 1.33), forestry herbicide applicators (OR 4.80), and for those with 15 or more years of occupational exposure to phenoxyherbicides 15 years prior to their diagnosis of cancer (OR 1.71). Pesticide exposures associated with increased risk of nonHodgkin's lymphoma were DDT (OR 1.82), and lead arsenate (OR 1.60); the elevated ratio associated with exposure to chlordane (OR 1.61) was not statistically significant. No increased risk for soft-tissue sarcoma was found.

## CHILDHOOD CANCER

**Gold, E, Gordis, L, Tonascia, J, et al. Risk factors for brain tumors in children.** *American Journal of Epidemiology* 1979; 109(3):309-319.

A case-control study of 84 children with primary brain cancer in Baltimore, Maryland, diagnosed between 1965-1975, compared to 76 children without cancer, and 112 children with

other types of cancer. Compared to the normal controls children with brain cancer were more likely to have been exposed to insecticides in the home (OR 2.3). There was no difference when compared to cancer controls.

**Hemminki, K, Saloniemi, I, Salonen, T, et al. Childhood cancer and parental occupation in Finland.** *Journal of Epidemiology and Community Health* 1981; 35:11-15.

A case-control study using birth records, of the occupations of parents of all children less than age 15 diagnosed with cancer in Finland from 1959-1975. Statistically significant increased risk of cancer in children was associated with the mother being a farm wife (OR 2.2, 1969-75), or food worker, mainly bakers (OR 4.0, 1959-68); and for fathers' occupation in agriculture, gardening, and forestry (OR 1.42).

**Infante, PF, Epstein, SS, Newton, WA, Jr. Blood dyscrasias and childhood tumors and exposure to chlordane and heptachlor.** *Scandinavian Journal of Work, Environment and Health* 1978; 4:137-150.

Reports of five cases of neuroblastoma diagnosed in Ohio at the same pediatric hospital in 1975. All of the children had had prenatal and/or extensive environmental exposure to chlordane. Also reported was a case of aplastic anemia in a 15-year-old boy with exposure to chlordane and Isotox and a 9-year-old girl with leukemia with chlordane exposure only.

**Infante, PF, Newton, WA. Prenatal chlordane exposure and neuroblastoma (letter).** *New England Journal of Medicine* 1975; 240:308.

The first report of the neuroblastoma cases described above.

**Kern County Health Department: Epidemiologic study of cancer in children in McFarland, California, 1985-1986: Phase I, Statistical Considerations, Current Environment.** Bakersfield, California 93305, November 1986.

The first report of the findings of an investigation of an increased number of childhood cancer cases in the agricultural community of McFarland, California, with a population of approximately 6,400. From 1975 to 1985 when three cases of cancer in children less than 15 would have been expected, ten were observed. For the period of 1982 to 1985 when one case would have been expected, eight were observed.

The number and types of tumors observed and year of occurrence are: two leukemias (1978, 1978), two Wilms' tumor (1982, 1984), one astrocytoma (1982), one nonHodgkin's lymphoma (1983), one osteogenic sarcoma (1984), one fibrosarcoma (1985), and one rhab-



domyosarcoma (1985). An excess of fetal and infant deaths (miscarriages and stillbirths) also occurred in the time period from 1981 to 1983. No current environmental cause was found.

**Lowengart, RA, Peters, JM, Cicioni, C, et al. Childhood leukemia and parents' occupational and home exposures. *Journal of the National Cancer Institute* 1987; 79(1):39-46.**

A case-control study of 123 children aged ten or less with leukemia diagnosed between 1980-1984, compared to 123 controls. Statistically significant increased risk of *acute lymphocytic leukemia* was found for children when either parent used household pesticides once a week or more (OR 3.8) or garden pesticides or herbicides once a month or more (OR 6.5); if the mother used household (OR 3.2) or garden (OR 9.0) pesticides; and if the father used household (OR 4.0) pesticides. Use of garden pesticides by the father (OR 5.0) increased the risk, but was not significant.

**Pratt, CB, Rivera, G, Shanks, E, et al. Colorectal carcinoma in adolescents. Implications regarding etiology. *Cancer* 1977; 40:2464-2472.**

A case report of nine children with *colorectal cancer* (very rare in children), diagnosed at the same hospital between 1974-1975. Eight of the children were from rural areas of Mississippi, Arkansas, or Tennessee and had had exposure to insecticides.

**Reeves, JD. Household insecticide-associated blood dyscrasias in children (letter). *American Journal of Pediatric Hematology/Oncology* 1982; 4:438-439.**

A report of 15 children aged 2 to 17 years who were reported to the blood dyscrasia clinic at Travis Air Force Base Medical Center in California. The most common exposure was inhalation of household aerosol sprays containing DDVP-Baygon. The most prolonged exposure was in a child with *juvenile chronic myelogenous leukemia* whose mattress had been sprayed twice weekly for most of his life. Eleven children had *aplastic anemia*, and three *acute lymphoblastic leukemia*.

**Alvanja, MCR, Blair, A, Merkele, S, et al.**

**Mortality among agricultural extension agents. *American Journal of Industrial Medicine* 1988; 14:167-176.**

A proportionate-mortality and case-control study of 1,495 white male agricultural extension agents in the Cooperative Extension Service of the U.S. Department of Agriculture who died between January 1, 1970 and December 31, 1979, compared to the USDA mortality file exclusive of the agricultural extension workers.

Statistically significant excess mortality in the proportionate-mortality study was found for *colon cancer* (PMR 1.46), *prostate cancer* (PMR 1.50), *kidney cancer* (PMR 2.00), *brain cancer* (PMR 2.08), *lymphatic and hematopoietic cancer* (PMR 2.16), *Hodgkin's disease* (PMR 2.72), *nonHodgkin's lymphoma* (PMR 2.32), *multiple myeloma* (PMR 1.97), and *leukemia* (PMR 1.80).

In the case-control study, statistically significant increased risk was found only for *leukemia* (OR 1.92), which also showed a significant increase in risk with increased number of years as an extension agent. A nonsignificant increased risk was found for nonHodgkin's lymphoma (OR 1.21) and multiple myeloma (OR 1.05), both of which also showed a nonsignificant increase in risk with increased number of years as an extension agent.

## CASE REPORTS

**El Zayadi, A, Kahlis, A, El Sammy, N, et al. Hepatic angiosarcoma among Egyptian farmers exposed to pesticides. *Hepato-gastroenterology* 1986; 33:148-150.**

Case report of 14 patients diagnosed with *angiosarcoma of the liver* at the same hospital in Egypt from 1980 to 1984. Ten of the 14 had a history of 11 to 20 years (mean = 14) of chronic recurrent exposure to agricultural pesticides as sprayers of a variety of organophosphates, organochlorines, and arsenates.

**Markovitz, A, Crosby, WH. Chemical carcinogenesis: A soil fumigant, 1,3-dichloropropene as possible cause of hematologic malignancies. *Archives of Internal Medicine* 1984; 144:1409-1411.**

A case report of two firemen involved in the clean-up of a tank-truck spill of 1,3-dichloropropene, both of whom developed

## FIGURE Abbreviations

|      |                                      |
|------|--------------------------------------|
| PMR  | Proportionate Mortality Ratio        |
| PCMR | Proportionate Cancer Mortality Ratio |
| SMR  | Standard Mortality Ratio             |
| SIR  | Standard Incidence Ratio             |
| RR   | Risk Ratio                           |
| OR   | Odds Ratio                           |

*malignant lymphoma* six years later. A case of acute myelomonocytic leukemia in a farmer sprayer is also discussed.

**Prabhakar, JM. Possible relationship of insecticide exposure to embryonal cell cancer (letter). *Journal of the American Medical Association* 1978; 240:288.**

A report from Illinois of two cases of *testicular cancer* in 1976 in 30-year-old men diagnosed within one year of each other. Both had worked at the same canning plant where they had occupational exposure to pesticides.

**Weininger, RB, Davis, G, Hawks, CD. Herbicides and cancer (letter). *Journal of the American Medical Association* 1987; 257:2292.**

A report of 92 cases of *nonHodgkin's lymphoma* diagnosed from 1975-1985 in upstate New York. The incidence of 15.3/100,000 (not age-adjusted) compared to SEER data (Surveillance Epidemiology and End Results) of 10.1/100,000 for the U.S. This elevated ratio of 1.51 was cited to support the Hoar study (vide supra), but no data reported regarding whether or not herbicide exposure was a risk factor in the cases.

# Are Pesticides Taking Away the Ability of Our Children to Learn?

By Mary O'Brien

*"In general, [human health] research demonstrates that pesticide poisoning can lead to poor performance on tests involving intellectual functioning, academic skills, abstraction, flexibility of thought, and motor skills; memory disturbances and inability to focus attention; deficits in intelligence, reaction time, and manual dexterity; and reduced perceptual speed. Increased anxiety and emotional problems have also been reported."* —United States Congress

Office of Technology Assessment, *Neurotoxicity: Identifying and Controlling Poisons of the Nervous System*<sup>1</sup>

Students learn by using their central nervous system, assisted by a healthy body, adequate nutrition, positive sense of well-being, fine teachers (both inside and outside of school), and a clean environment. Pesticide exposure, however, robs a student of a clean environment, can undermine or destroy the student's health, and may directly affect the student's central nervous system. Learning then becomes another casualty of pesticides.

## *The Nervous System and Toxins<sup>1</sup>*

A human's brain and spinal cord (central nervous system) control vision, hearing, speech, learning, memory, and muscular movements. All of these functions are based on the fundamental unit of the nervous system, the nerve cell, or neuron (Figure 1). Electrical nerve impulses travel along the axons and dendrites of the nerve cell and the cell synthesizes and secretes *neurotransmitters*, specialized chemical messengers that interact with receptors of other neurons to provide communication.

*Glial cells* appear to support neurons, with certain of them producing *myelin*, a fatty substance that covers

the axons of many neurons and allows the electrical nerve impulses to travel farther and faster than they otherwise could.

The point of interaction between neurons is the *synapse* (Figure 2). Neurotransmitters stored at the tips of the axon are released by electrical impulses, travel across the synaptic space to the next axon, where they bind to receptors and trigger biochemical events that lead to electrical excitation or inhibition. A nerve impulse is thereby passed on or halted.

*"The peripheral nervous system (nerves that travel to and from the spinal cord, sense organs, glands, blood vessels, and muscles) is more vulnerable than the central nervous system to neurotoxins..."*

Different neurotoxic chemicals affect different sites: neurons, glial cells and myelin, the neurotransmitter system, and blood vessels supplying the nervous system.

Most of the central nervous system is partially protected from toxins by the blood-brain barrier, a layer of cells in blood vessel walls that allows some substances to pass into the nerve tissue and prevents others from doing so. Small compounds and compounds that are soluble in lipids (e.g., fat), tend to cross this barrier more easily than larger or water soluble compounds. The brain is particularly vulnerable to

lipophilic toxins (those attracted to components of cells that are not soluble in water) since 50 percent of the dry weight of the brain is lipid; other organs of the body are 6 to 20 percent lipid.

The peripheral nervous system (nerves that travel to and from the spinal cord, sense organs, glands, blood vessels, and muscles) is more vulnerable than the central nervous system to neurotoxins because it lies outside the central nervous system.

The developing nervous system of a fetus or infant, however, is especially vulnerable to certain toxins. Its cells are growing, dividing, moving around, and making connections, and the blood-brain barrier is incomplete.<sup>1,2</sup> While exposure to neurotoxins during the early part of fetal development may result in spina bifida (exposed vertebral column) and anencephaly (absence of part or all of the brain), later development leaves the cerebrum and cerebellum (portions of the brain responsible for sight and movement) particularly vulnerable.<sup>1</sup>

Neurotoxic substances may also affect cells of the immune system, which can in turn influence nervous system functioning. Recent research in this area has led to a new field of research known as neuroimmunology.<sup>1</sup>

The liver is the body's principal organ of detoxification, with the kidney, intestine and lung also playing major roles. Once in the human body, toxic substances often undergo biotransformation in the liver, with the kidney, and lungs also playing major roles. Biotransformation usually changes lipophilic compounds to water soluble compounds so that they are more easily excreted. In the process, it may yield compounds that are more toxic. As a result, the compound originally entering an organism may not be the toxin that eventually acts on the nervous system.

Likewise, chemical interactions may occur among multiple toxic substances, causing *additive effects* (i.e., the combined effects are equal to the sum of the effects of each of the sub-

Mary O'Brien is NCAP's staff scientist.

■ EDITORIAL

# Just Saying No to School Pesticide Use

If we don't want school children and toxic pesticides to be sharing the same school building, what can we do? What are the steps we can take to reduce school pesticide use?

First, read this issue of the *Journal of Pesticide Reform*. It includes articles that describe changes in pest management practices in six school districts across the United States. Also, one article summarizes current research about the effects of pesticides on learning, another previews a school integrated pest management (IPM) guidance document to be released early in 1991 by the U.S. Environmental Protection Agency, and several teachers share ways in which insects can be used in the classroom to nurture fascination about insects and interest in alternatives to pesticides.

Next, begin work with your school by arranging a meeting with the prin-

cipal and someone from the facilities management department of the school district. Share your concerns and ask questions. For example, you might want to ask the following questions:

- Which pests are present?
- What control methods are used?
- Is advance notice of treatments given?
- Who makes the decision about whether to use pesticides?
- Are nontoxic alternatives considered?

If you are not satisfied with the answers you receive, bring your concerns to the superintendent and the school board. Talk to other parents, teachers, and the parent teacher association. Ask for their support.

Be prepared to suggest non-chemical pest management strategies. NCAP can help with information about particular pesticides and alternative

treatments for specific pest problems.

Ask that a committee be formed to oversee the development and implementation of an integrated pest management policy. Involve as many interested parties as possible. The school district may find it desirable to consult or hire an integrated pest management specialist. Small districts might want to work together to share the costs of a specialist.

School grounds and maintenance staff need to be involved in the development of a new policy and to feel a sense of ownership over it. Make sure all staff are trained in the new policy.

Finally, be sure that teachers and students are involved. Helping implement a new building maintenance policy or a landscape design that reduces pest problems can be an educational experience.

—Caroline Cox and Becky Riley

■ ANNOUNCEMENTS

## Thank You, Mary O'Brien

Big changes will come to NCAP when Mary O'Brien, our staff scientist, leaves for a new job in January. The changes are sure to bring opportunity to Mary, NCAP, and the environment.

Mary first noticed NCAP in the fall of 1981 when she was finishing her botany Ph.D. dissertation. She stopped by our office and offered to assist us with scientific questions.

NCAP soon asked Mary to help write a basic guide to the science of pesticides. After a year in the library, Mary presented NCAP with *On the Trail of a Pesticide*. It has served as a guide for citizens ever since.

By 1983, Mary was working for NCAP answering information requests. Mary's ideas, skills, creativity, and energy haven't stopped since.

One of Mary's greatest contributions has been as editor for 27 issues of the *Journal of Pesticide Reform*. The journal's standards for technical accuracy and documentation combined with action and passion must be the model used by all of us as we work to ensure that alternatives to pesticides are used.

If an idea or method lacks vision or



logic, Mary is sure to propose something different. Her role is not to complain about what's wrong; it is to put forth ideas for a better way, using the strongest arguments, cleverness, humor, and conviction.

In November 1989, Mary was presented the prestigious Robert van den Bosch Memorial Award by the University of California at Berkeley. The award recognized her scientific expertise and technical contributions to improving pesticide and resource management policies.

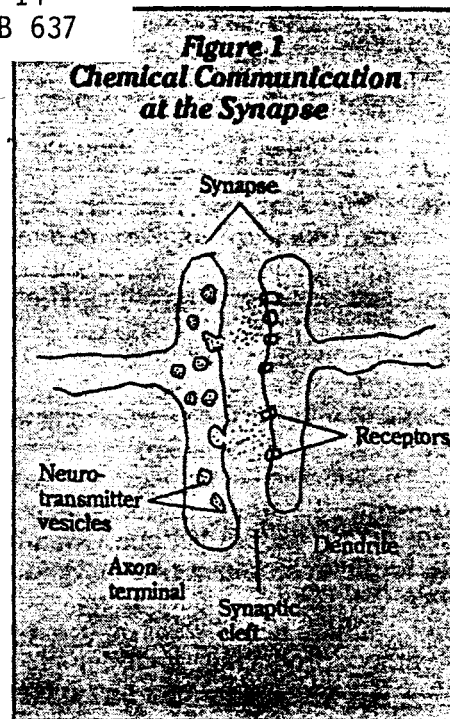
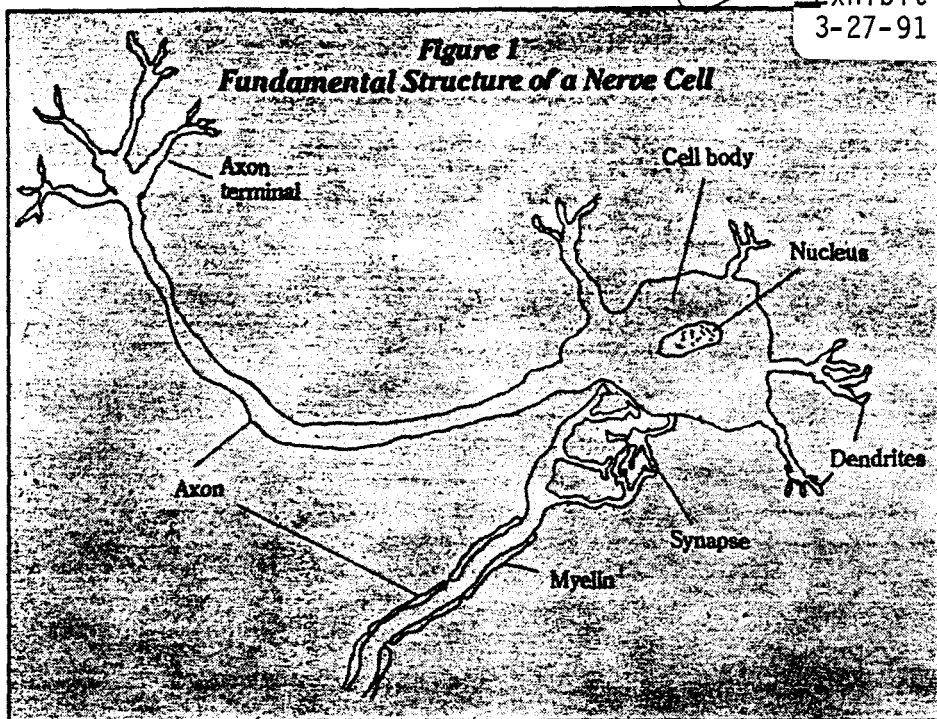
Mary will be working as staff scientist with Environmental Law Alliance Worldwide (E-LAW), an international network of attorneys who bring lawsuits in their own countries (mostly in the southern hemisphere) and work to strengthen environmental legislation. Mary will help bring the best science for challenges to hazardous dumping, deforestation, and pollution, as well as pesticide use.

Thank you, Mary, for all your contributions to pesticide reform. Humans and nonhumans alike are lucky for what you will do in your new job on behalf of grassroots environmental activists worldwide.

## A New Brochure!

Portland graphic artist Chris Michel recently re-designed NCAP's membership brochure. NCAP is grateful for his beautiful work.





stances individually) or *synergistic effects* (i.e., the combined adverse effects exceed the sum of the individual effects). *Potentiation* occurs when a substance that is not toxic increases the toxicity of another substance.

Very few suspected neurotoxic chemicals have been evaluated in the laboratory, and even fewer have been thoroughly tested. Under the nation's pesticide law, the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), neither pesticide formulations nor individual pesticide ingredients need be tested for neurotoxicity (with the exception of a single delayed peripheral neuropathy test required for organophosphate non-secret (active) ingredients).<sup>3</sup>

Research provides evidence that certain pesticide ingredients can and do attack learning by a variety of mechanisms. A brief look at some of this research on organophosphate and carbamate pesticides, secret solvent ingredients, and dioxin contaminants of pesticides follows.

### Organophosphate and Carbamate Pesticides

Organophosphate and carbamate pesticides and nerve gases act as neurotoxins by inhibiting acetylcholinesterase, the enzyme that inactivates the neurotransmitter acetylcholine (Figure 2). This creates a build-up of acetylcholine, which causes nervous system dysfunction.

Acute exposures to organophos-

phate pesticides have been shown in some cases to cause apparently permanent intellectual damage, and low-level, chronic exposures to organophosphate and carbamate pesticides can result in accumulated inhibition of acetylcholinesterase to the point of acute effects. Moreover, low-level, non-chronic exposure has been shown in some cases to lead to behavioral effects before inhibition of acetylcholinesterase is measurable.

**Vision and organophosphates.** Japan, a heavy user of organophosphate pesticides, experienced a tremendous increase of cases of myopia (near-sightedness) beginning several years after World War II.<sup>4</sup> Three distinct peaks in incidence were observed in 1962-1965, 1969, and 1973. The amount of organophosphates used increased during the same period in parallel fashion, with a one-year time lag in myopia incidence in 1969 and 1973.

In 1969, 71 children from the Saku agricultural district of central Japan where parathion and malathion are used extensively were examined because they were experiencing reduced visual acuity (the vision of 50 percent of these children could not be corrected to 20/20 with lenses), a narrowing of the visual fields, and optic neuritis.<sup>5</sup> The signs were first noted in the area in 1965, shortly after insecticides became used on a massive scale. Rates of myopia within the Saku district were found to be higher in areas where the concentration of organo-

phosphate pesticides in drinking water was higher.

Compared to 100 control subjects in Tokyo, who were less likely to be exposed to organophosphate pesticides, the Saku children were more likely to have experienced classical organophosphate poisoning symptoms, to have drunk well water, played in a rice field, had a history of definite contact with sprayed pesticides, and lived in a home where pesticides were used. The blood level of organophosphates in the Saku children was highly correlated with myopia and astigmatism (structural defects of the eye or lens which cause blurred images).<sup>4</sup>

**Vision and low dose exposure to organophosphates.** An experimental beagle study involving low dose, long-term exposure to a highly toxic organophosphate pesticide (ethylthiometon, two year exposure) and a less toxic organophosphate pesticide (fenitrothion, one year exposure) produced myopia in all exposed dogs.<sup>6</sup> Myopia persisted at the end of two years, which was one year after cessation of fenitrothion exposure.

While a dose of 0.15 mg/kg mevinphos (an organophosphate pesticide) elicited grossly detectable poisoning symptoms in pigeons, less than 0.05 mg/kg caused decreased visual responses to target movement, due to effects on one particular type of neuron (i.e., retinal neurons).

As the authors note, "All this suggests that exposure to organophos-

phate pesticides can cause substantial visual dysfunctions over a period of time with little or no warning from the usual peripheral signs that dangerous functional changes are occurring.<sup>7</sup>

**Behavior and low dose organophosphate exposure.** Rats exposed to malathion exhibited decreased shock avoidance behavior 60 minutes after injection of a dose (50 mg/kg) causing no significant effects on red blood cell, plasma, or brain cholinesterase activity. Motor activity was depressed at a lower dose level (25 mg/kg).

"The difference in findings," the authors write, "illustrates the importance of employing more than one type of task in the assessment of behavioral activity....From these data, it appears that malathion may disrupt rat behavior without producing significant inhibition of either blood or brain [cholinesterase] activity....[It] is suggested that current human screening procedures designed to monitor malathion toxicity be reviewed for their adequacy in detecting sub-clinical behavioral change."<sup>8</sup>

**Long-term Intellectual impairment and organophosphate exposure.** The pigeon and rat studies described above indicate that subtle organophosphate-induced behavioral changes might be detectable at lower doses than those eliciting cholinesterase inhibition or other classical signs of organophosphate poisoning. Another study<sup>9</sup> investigated chronic effects of acute organophosphate poisoning (JPR 5(3):27) among one hundred humans who had at one time (an average of nine years earlier) experienced acute poisoning which *would* have resulted in temporary, reversible cholinesterase inhibition. Two children and one college student were among the poisoned subjects.

Compared to 100 nonpoisoned controls matched for age, sex, level of education, occupational class, socioeconomic status, race, and ethnic background, the poisoned subjects exhibited impairments in intellectual functioning, abstract and flexible thinking, and simple motor skills. The poisoned subjects indicated greater distress and greater perceptions of their own disabilities.

Poisoned and nonpoisoned subjects did not differ in hearing ability, vision, electroencephalograms, or clinical serum and blood chemistry evaluations.

**Figure 3**  
**Organic Solvents**

An example of an "Inert" (secret) pesticide ingredient in each major class of organic solvents.

**Aliphatic hydrocarbons**



n-Butane (List 3)

**Alcohols**



Methyl alcohol (List 3)

**Esters**



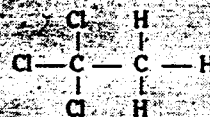
Diethyl ether (List 3)

**Ketones**



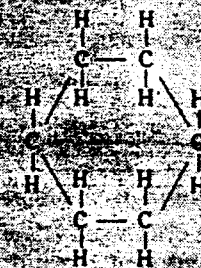
Acetone (List 3)

**Halogenated hydrocarbons**



1,1,1-Trichloroethane (List 2)

**Cyclic hydrocarbons**



Cyclohexane (List 2)

**Ethers**



Diphenyl ether (List 2)

**Glycols**



Ethylene glycol (List 2)

**Aldehydes**



Formaldehyde (List 2)

<sup>7</sup> Solvent toxicity: a review of the literature. J. Occup. Med. 1971;13:1-10.  
<sup>8</sup> Solvent toxicity: a review of the literature. J. Occup. Med. 1971;13:1-10.  
<sup>9</sup> Solvent toxicity: a review of the literature. J. Occup. Med. 1971;13:1-10.



verbal and quantitative tests.<sup>17</sup>

The marker organochlorine that was measured in the mothers' umbilical cord, breast milk, and infants was PCB, but the Great Lakes fish would have contained other organochlorines (including dioxins) present in the Great Lakes food chain. In fact, two of the fish consumption studies note that newborn behavior deficits were significantly related to mothers' fish consumption, but not PCB levels in the umbilical cord. Two of the researchers hypothesize that "it is possible that those deficits were due to other toxins from the same contaminated fish that were not measured by the analytical laboratory."<sup>18</sup>

Dioxins and furans are known to be present or potentially present in a large number of pesticides.<sup>19</sup> The most toxic dioxin, 2,3,7,8-TCDD, for instance, is known to be present in the herbicide dacthal,<sup>20</sup> which massively contaminates the groundwater of eastern Oregon in the onion-growing region of Ontario.<sup>21</sup>

A study in which mother rhesus monkeys were exposed to 5 parts per trillion (ppt) 2,3,7,8-TCDD in their food for an average of 16 months before giving birth to infants, revealed specific learning difficulties in their offspring. The young monkeys with exposed mothers exhibited reduced ability (compared to offspring of mothers who were not exposed to dioxin) on a discrimination reversal learning test for shape, but exhibited normal performance on a delayed spatial alternation test. Both these tests are standard behavior tests which measure the time required for monkeys to learn which of several blocks has a reward under it.<sup>22</sup> The researchers note that this same effect (i.e., a learning deficit for discrimination reversal learning in the absence of delayed spatial alternation deficits) has been exhibited by monkeys exposed to low levels of lead during development.

This study is particularly disturbing because of the extremely low exposure levels (i.e., 5 ppt 2,3,7,8-TCDD in the mothers' diet). The U.S. Environmental Protection Agency (EPA) estimates that many Native Americans, Asian Americans, and poor people living along the Columbia River consume large quantities of fish contaminated with approximately 6.5 ppt 2,3,7,8-TCDD equivalents.<sup>23</sup>

When the EPA recently calculated risks to people of eating fish contaminated by pulp mill effluents with dioxins and furans, the agency considered only cancer risks and risk of liver damage.<sup>24</sup> The EPA admitted that reproductive and developmental toxicity is a more sensitive non-cancer effect of dioxin than liver damage, but declined to calculate reproductive and developmental risks to humans because not all people consuming dioxin-contaminated fish are reproducing and the EPA was only wanting to calculate risks to the "general public."

### Conclusion

Despite the lack of required testing, research indicates that certain pesticide ingredients and contaminants can and do cause behavioral and learning deficits. An unknown number of pesticide chemicals and their contaminants are involved in affects on learning. Our children therefore deserve zero exposure to pesticides. ■

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The researchers note that although the major deficits among the poisoned subjects were cognitive, standard clinical neurological examinations do not generally detect impairments of higher level cognitive skills and activities.<sup>9</sup>

Many studies of organophosphate and carbamate toxicity exist in the literature, but differences exist in the quality of studies and specific compounds and symptoms investigated. Questions remain as to the permanency of effects, the dose at which particular types of damage occur, and the relative effects of high dose acute versus low dose chronic exposures to different compounds. What is clear, however, is that behavioral effects that can lead to learning difficulties may follow relatively low dose exposure and that permanent learning difficulties may follow sufficiently high dose exposure.

#### **Secret Ingredients: Organic Solvents**

Organic solvents are a group of liquids made of simple organic (carbon-containing) molecules. They are volatile so that they change, in the presence of air and under normal pressure and temperature conditions, from liquids to gases. Inhalation is therefore a major route of exposure, although absorption through skin is another important route.

All organic solvents are fat-soluble and neurotoxic, producing effects on the central nervous system at some dose.<sup>10</sup> The brain, having a high fat content and very rich blood supply, concentrates high levels of solvents quickly.

Short-term exposures at low toxicity may produce headaches, nausea, and nasal and mucous membrane irritation while long term exposure can result in nonspecific narcotic effects (e.g., talkativeness, motor incoordination) that impair work performance.<sup>1</sup> Specific solvents may cause sleep disturbances, nightmares, insomnia, emotional disorders, epileptic seizures, and encephalopathy (a wasting of brain matter).<sup>11</sup>

There are a number of major classes of organic solvents; the EPA list of secret ("inert") ingredients allowed for use in pesticide formulations reveals examples of most of the major classes of these solvents (Figure 3).

Toluene and xylene, both secret

pesticide ingredients,<sup>11,12</sup> can damage the inner ear, leading to high-frequency hearing loss.<sup>1</sup> Trichloroethylene, an "inert" pesticide ingredient,<sup>12</sup> may damage facial nerves and produce facial numbness.<sup>1</sup> Numbness in hands and feet, muscle weakness, and lack of coordination can be caused by chronic exposure to hexane and methyl-n-butyl ketone, both "inert" pesticide ingredients,<sup>12</sup> and related solvents.<sup>1</sup>

***"All organic solvents are fat-soluble and neurotoxic, producing effects on the central nervous system at some dose. The brain, having a high fat content and very rich blood supply, concentrates high levels of solvents quickly."***

The effects of long-term low level or short-term exposure to solvents are not well studied. Little effort has been devoted to developing animal models regarding nervous system injury or behavioral disorders in laboratory animals.<sup>1</sup> No neurotoxicity testing of pesticide formulations containing neurotoxic solvents is required for U.S. pesticide registration.

While workplace exposure to solvents can be reduced by engineering controls, or, less desirably, by personal protection devices, the spraying of pesticides containing unlabeled neurotoxic solvents leaves those who are exposed both uninformed and unprotected. The study of effects on learning or behavior in children who have been exposed to neurotoxic, solvent-containing pesticides is hampered by the fact that the presence of the solvents is secret.

Children at a Hawaiian elementary school complained one morning of headaches, stomachaches, breathing

difficulties, nausea, and other symptoms. The resultant investigation indicated that the cause of their illness was xylene, the solvent in the pesticide (Dursban 4E) that had been sprayed around the perimeter of the building the day before, not the labeled ingredient, chlorpyrifos.<sup>13</sup> This incident involved an acute illness. If subtle, adverse behavioral and learning effects are occurring among certain students following exposure to solvents in pesticides, who would notice or investigate?

#### **Pesticide Contaminants: Dioxins**

Organochlorine compounds, those containing both chlorine and carbon atoms, accumulate in the environment and the human body. Citizens of all industrialized nations carry levels of DDE (a metabolite of DDT), chlordane, heptachlor, PCBs, and other organochlorines in their bodies as a result of exposure to past use of organochlorines as pesticides (e.g., pentachlorophenol, DDT, chlordane, heptachlor, endrin, dieldrin, aldrin, dicofol, toxaphene) and in electrical transformers (PCBs). Dioxins and furans are introduced into humans and their food chains as contaminants in pesticides, pulp and paper products (and the waste products from their manufacture), and municipal incineration. The fungicide pentachlorophenol, for instance, is itself an organochlorine, but is also heavily contaminated with toxic dioxins.<sup>14</sup>

In a human developmental study of the effects of consuming organochlorine-contaminated fish, infants of women who ate an average of two meals per month of fish from the Great Lakes were compared to infants of women who ate less than two Great Lakes meals a month. Infants with mothers who ate contaminated fish had lower birth weight, disproportionately smaller heads, and a shorter gestation period than unexposed infants.<sup>15</sup> At seven months, measurements of these infants' visual recognition memory were made.<sup>16</sup> Exposed infants were less likely than unexposed infants to recognize and look at a new photograph after having seen one photograph. The most highly exposed infants spent only half the time looking at the new photograph that unexposed infants did. When tested at four years of age, these children exhibited deficits in short term memory on both

717 Defoe  
Missoula MT 59802

Feb 14 1991  
SENATE NATURAL RESOURCES

EXHIBIT NO. 15

DATE 3-27-91 PM

BILL NO. 02637

Natural Resources Committee  
House of Representatives  
Montana State Legislature  
Helena MT 59620

Dear Mr. Chairman and Members of the Natural Resources Committee:

I am writing to express my support for passage of House Bill #637,  
a "right to know" pesticide application law.

Two years ago I was a victim of sloppy spraying procedures by a licensed sprayer here in Missoula. A "Right to Know" law would have prevented the incident. After the Missoulian published my letter to the editor about the spraying, I received about a dozen calls and letters from victims of other "mishaps," most of which were supposedly regulated sprayings (i.e. commercial sprayers, the State of Montana as overseer). Properties were being sprayed without permission, some people had been directly exposed to toxic sprays, or they were aware that the public is being exposed without their knowledge or consent. My personal conclusions, after a great deal of research, is that first of all, the state regulators are not empowered enough to do their job. They are understaffed, spread too thin, and held down by a very strong chemicals industry. Further, the industry itself, including the sprayers, do not respect the toxicity of the chemicals they handle, they pay too small a license fee to practice, receive too little training annually, and exhibit an amazing disinterest in the natural cycles of the very pests they are supposedly trained to control, while not respecting other life forms they may impact (including human beings).

It is wrong when government places great emphasis on personal autonomy, while ignoring public health and safety. The public simply must be protected, especially when the party with a need to make money to support his family cuts corners with regulations to make money faster. A "right to know" law will not only protect the public, but will help protect employees of the sprayers from exposure to the toxic chemicals used in this industry. One of my contacts was with an employee of the industry who was not only concerned with employee exposure, but also public exposure.

In my particular case, I did not know my neighbor's tree was to be sprayed until I saw two men spraying near their unmarked truck at a curb near my house. They didn't even have the courtesy to knock on neighbors' doors to let people know they were about to spray. I had a ten-year organic garden, my toddler's diapers were hanging on the clothesline, his toys were in the yard. A steady breeze was blowing while the men sprayed - the most common violation of state regulations, I am told. Only one man protected himself with a mask.



I couldn't run outside to make them stop because I would have been sprayed. Later I learned they had used Diazinon, a potent spray they were using against the box elder leaf roller (on an already defoliated tree). I understand that they told their customers that it would not kill birds (it does), that the tree would die if not sprayed (a box elder? -don't make me laugh!). This was pure misinformation, according to the extension agent I consulted. These sprayers were simply trying to make a buck, while not being watched very closely by their regulators. This same company had side-stepped regulations the year before, committing a serious violation of state regulations when they used a spray not approved for urban use in an urban neighborhood. My understanding is that the company only received what amounted to a slap on the wrist by our state regulator. The sprayer's license should have been revoked.

My close encounter with Diazinon meant that I had to throw out \$42.50 worth of diapers, and we had to avoid using our front yard that summer. We value clean and safe personal surroundings. The sprayers consider Diazinon to be "perfectly safe." In fact, had our young son been soaked in the spray he might have received what the industry terms a "50/50 lethal dose." Fortunately, he was taking a nap inside the house at the time of the spraying, and not playing in the back yard where the spray drift might have reached him. The sprayers did not make sure children were out of range, nor did they inform people that their cars might be sprayed. Diazinon is one of the mildest sprays available to commercial sprayers, I am told.

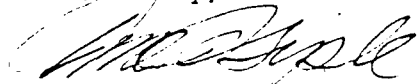
While I kept my son indoors the rest of that nice day, I saw a woman with a baby in a stroller wheel right through the recently-sprayed area. By the time I saw her it was too late to stop her. It brought tears to my eyes that neither the woman with her baby, nor I and my son had the "right to know" when and where the spray would be applied, nor what it was.

It is simply unhealthy and unfair to expose the public in this way. Missoula parks, up until last year, have been routinely sprayed without public notice, using very toxic chemicals to accomplish the dubious chore of killing dandelions. Drove of Moms with their babies and toddlers make use of the parks, spreading blankets, going barefoot, eating picnics on grass possibly sprayed only a couple of hours beforehand.

I believe the warning signs required by House Bill #637 will, first of all, protect the public from harm. Second, they will be an aid to the state regulator by providing the eyes and ears of the public to help watchdog the spraying industry. Third, a very real spin-off of this law will be an increase in public confidence in commercial sprayers. At the moment we feel like no one is watching the store.

This really is a needed piece of regulation. Pass it, please.

Sincerely,



June J. Siple

February 14th, 1991

Tom Peel, President  
Missoula Neighborhood Network  
202 Hickory  
Missoula, Montana 59801

SENATE NATURAL RESOURCES

EXHIBIT NO. 16

DATE 3-27-91 PM

BILL NO. HB 637

Natural Resources Committee  
House of Representatives  
Montana State Legislature  
Helena, Montana

RE: HB 637

Dear Chairman and Members of the House Natural Resources Committee:

We are grateful for this opportunity to present written testimony in support of HB 637 relating to the posting of pesticide caution signs where such chemicals are used in cities and towns.

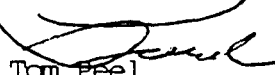
As citizens and parents we are deeply concerned about the now well-known dangers to our community and its children posed by present practices of pesticide use. Our concern has grown as information regarding pesticide danger appears throughout the communication spectrum, including water quality reports, public health journals, newspapers, periodicals, epidemiology studies, public workshops, and television documentaries.

It is now abundantly clear to us as parents, workers, and professionals that the continued careless use of pesticides, applied with little or no warning to citizenry, constitutes a major threat to public health; children who are unwittingly exposed to these chemicals appear to be at greatest risk.

We believe that the people of Montana are aware, at the deepest level of conscience, of the real costs to this land and its inhabitants where industry has operated with profit motivation as its major driving force. While the profit motive makes a contribution to our delicately growing economy, in this case public safety factors should take precedence in order to prevent hazards to health and possible future litigation against applicators, including public agencies.

The Missoula Neighborhood Network strongly supports HB 637 as measured legislation serving to protect public health. This is, after all, a basic public health issue.

Sincerely,

  
Tom Peel  
406-728-7999

SENATE NATURAL RESOURCES

EXHIBIT NO. 17

DATE 3-27-91 PM

BILL NO. H0637

Missoula, February 14, 1991

Natural Resources Committee  
House of Representatives  
Montana State Legislature  
Helena, Montana

Dear Chairperson and Members of the Natural  
Resources Committee,

My name is Sandra Perrin and I have been a successful organic  
gardener all my gardening life. I am also the author of ORGANIC  
GARDENING IN MONTANA AND THE NORTHWEST.

I like you to know that I am in full support of H.B.637. It is  
a reasonable and cautious bill that protects the general public from  
being exposed unknowingly to pesticides. Thank you.

Sincerely,

*Sandra Perrin*

SANDRA PERRIN  
302 Pattee Canyon Dr.  
Missoula, Mt. 59803  
Tel. 542-2017

Feb. 14, 1991

Montana State Legislature  
Helena, MT.

Attention Chairperson:

SENATE NATURAL RESOURCES

EXHIBIT NO. 18

DATE 3-27-91 pm

BILL NO. HB 637

Please be advised that I favor the passage of House Bill 637 - Pesticide Warning Signs.

Everyone has a right to clean air and clean water. However, we can no longer take this right for granted. Pesticide residue is getting into our water supply and then into our food chain from fields and/or crops being sprayed by private and commercial applicators. Roadside spraying in cities and rural areas in Montana is doing more harm than good - there are alternatives!

It is not enough to expect private citizens to post "No Spray" signs - sometimes they are not observed, sometimes they are destroyed, etc., etc.. It is only prudent that the applicator be responsible for the potential danger to our health.

The advance and post notices stated in this bill (as well as the size), should be considered the minimum. Also, the signs should contain sufficient information as to the inherent ingredients of the pesticide being applied.

The time for complacency is over. Lets pass this bill, now, for Montana!

Yours truly,

*Bonnie Wisherd-Brewer*

Bonnie Wisherd-Brewer  
RR 90, Bonner, MT 59823-9702

Phone: 406-244-5530 (8-9 AM)

cc:

Dept of Natural Resources and Conservation  
Committee Members

## SENATE NATURAL RESOURCES

EXHIBIT NO. 19

DATE

3-27-91 PM

BILL NO.

HB 637

February 13, 1991

Natural Resource Committee  
Montana House of Representatives  
Helena, Montana

Dear Chairperson and Committee Members;

We are writing to show our support for House Bill #637, a bill which would require anyone using pesticides out of doors to post warning signs in the area before, during and after the usage of those pesticides.

As health care providers and residents of the States of Montana, we believe in the public's right to be informed of potential risks to health. Direct links between pesticides and illness are controversial, however, we believe a person has the right to be informed of pesticide usage through the use of these warning signs so that he or she can make an informed choice to avoid unnecessary exposure if they so desire.

A big part of the reason that we all enjoy living in the State of Montana is of course the pristine environment and ability to have a healthy lifestyle. It is important to us that we can continue to maintain that quality in our lives.

Sincerely,

## PROPOSERS:

NAME

SIGNATURE

ADDRESS

|                     |                            |   |
|---------------------|----------------------------|---|
| Darlene E. Schmid   | <i>Darlene E. Schmid</i>   | RN 110 South Ave. W., Missoula, MT. 59801 |
| Lisa Guenther       | <i>Lisa Guenther</i>       | 12 Charis Lane, Missoula, MT 59801        |
| DEROTHY HOSHAU      | <i>Derothy Hosha</i>       | RN 207 TAKIHA DR. MISSOULA MT 59801       |
| Sharon Delaney      | <i>Sharon Delaney</i>      | RN 531 Plymouth, Missoula MT 59801        |
| Susan Whittinghill  | <i>Susan Whittinghill</i>  | RN 731 N. 5TH W. Missoula, MT 59802       |
| Michelle Sokolowski | <i>M. Sokolowski</i>       | RN 1611 Jackson Pl. Missoula MT 59802     |
| Cindy Haumer        | <i>Cindy Haumer</i>        | 105 Ben Hogan Dr., Missoula MT 59802      |
| Alice MARQUARDT     | <i>Alice Marquardt</i>     | 519 Woodford Missoula 59803               |
| Cathy Black         | <i>Cathy Black</i>         | 2205 1st St NE, Missoula 59801            |
| Judy Dunlop         | <i>Judy Dunlop</i>         | RN 6215 Sawmill Gulch 59801               |
| Daniel R. Schneider | <i>Daniel R. Schneider</i> | RN 541 E Sussex Missoula MT 59801         |
| Susan Molitoris     | <i>Susan Molitoris</i>     | RN 720 Dickinson Missoula 59802           |
| Suzanne Julin       | <i>Suzanne Julin</i>       | 7 Carriage Way Missoula 59802             |
| TERRY NOOD          | <i>Terry Nood</i>          | FLYING EYES MOUNTAIN, MT 59802            |
| R. Jamie Hensch     | <i>R. Jamie Hensch</i>     | 733 W. Sussex #1                          |

WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: John M. Bass

Address: 113 Small Ln  
Missoula, Mt. 59801

Telephone Number: 549-6929

Representing whom?

Lawn Master, Inc., AMTOP

Appearing on which proposal?

HB 637

Do you: Support?        Amend?        Oppose? X

Comments:

See prepared statement



# AMTOP

Association of Montana  
Turf and Ornamental Professionals, Inc.

P.O. Box 375 • Milltown, MT 59851

SENATE NATURAL RESOURCES  
EXHIBIT NO. \_\_\_\_\_  
DATE 3-27-91 PM  
BILL NO. HB637

Mr. Chairman,

AMTOP, the Association of Montana Turf and Ornamental Professionals represents the green industry across the state of Montana. Our membership includes growers, landscapers, lawn care companies, arborists, pest control operators, golf courses and park departments. Most of AMTOP's members are licensed as commercial pesticide applicators.

AMTOP firmly opposes the passage of House Bill 637.

Problems concerning HB637

- The definitive phrase in HB637 "only cities and towns" implies that location makes a product dangerous, when in fact, being inside city limits does not affect the toxicity of any product.
- HB637 promotes the idea that posting of applications will reduce the instances of improperly applied pesticides, where in fact the only way to promote the correct use of pesticides is through training, education, and the strict enforcement of existing laws.
- HB637 arbitrarily decides the time frame for safe re-entry after a pesticide application, ignoring the re-entry statement found on all pesticide labels; this statement, being of prime concern to the E.P.A. at the time of product approval and registration.
- HB637 fails to address the fact that someone may play with, remove, or even relocate the signs.
- By having each application posted for 72 hours, HB637 promotes unnecessary fear, distrust, and paranoia without increasing the public safety.

Prior to the introduction of this bill, AMTOP proactively developed a position statement concerning posting and notification. Carefully reviewing the sixteen existing state laws dealing with posting and notification, AMTOP was able to learn that there are many states using proven effective measures to address this issue.

One such method is to create a state administered registry. In such a registry, anyone having been certified by a licensed medical physician to have allergic reactions or other valid medical reactions to the application of turf or ornamental products would have their names, addresses, and telephone numbers listed. The Department of Agriculture should be required to develop, maintain and distribute this registry to applicators.

Ex. 1

3-27-91pm

HB 637

- HB637 is ill-planned, costly, ineffective, and its goals can be better achieved by other methods. A new bill would be necessary to correct its many flaws. AMTOP actively supports a state registry of chemically sensitive individuals and feels that a study of this issue by the Montana Department of Agriculture would be very important in any future legislation.

Please vote against HB637

John M. Bass  
President/AMTOP



EXHIBIT NO. 2  
DATE 3-27-91 pm  
BILL NO. HB 637

WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: Merle Riggs

Address: 1956 Patricia Lane  
Billings 59102

Telephone Number: 656-9490

Representing whom?

Self - Riggs Tree Spraying Service

Appearing on which proposal?

HB 637

Do you: Support?        Amend?        Oppose? X

Comments:

I have a short presentation stating my position  
I will have a handout for Committee Members

EXHIBIT NO. 2

DATE

3-27-91 pm

BILL NO.

HB 637

Natural Resources Committee  
Montana State Senate  
Capitol Station  
Helena, MT 59620

Re: HB 637

March 27, 1991

My name is Merle Riggs. I live at 1956 Patricia Lane, Billings, Montana. I have owned Riggs Tree Spraying Service since March, 1986. I graduated from Colorado State University in 1950 with a degree in Agriculture. I was employed at Great Western Sugar Company for 27 years, retiring in 1985. As head of the Agriculture Department in Billings from 1975 until 1984, one of the main functions of my position was to advise beet growers on how to maximize production and profit. One of the major efforts was teaching the growers how to use pesticides to control insects, eliminate weeds from their crop and to help control diseases by use of pesticides and fungicides.

The expertise that I acquired has been very beneficial in my second avocation as a tree and shrubbery sprayer in Billings.

In my five seasons of applying dormant oil and insecticides, I averaged spraying 700 jobs a year. I applied pesticides on 875 jobs in 1990. The previous owner, Lee Salsbury, operated this same business for 47 years prior to my purchase of the business. He stated to me that in all those years, only one complaint was filed regarding his use of a pesticide. The complaint was from a woman with an asthmatic son. She was worried about the possible effects the pesticide he was applying would have on her son. However, when Mr. Salsbury called on this woman, she answered the door dressed in a bathrobe and smoking a cigarette.

I have not had a complaint filed against me, although I have been asked on a few occasions what the name of the pesticide was that I was using. I have given the name and this apparently satisfied their concerns.

To help give you better insight into this proposed legislation, I want to point out that the best estimate I can give is that I apply pesticides to only 2.05% of the households in the city of Billings in any single year. There are very important things to remember and that you, as Legislators, must keep in mind in deciding on how you are going to vote on this issue and what effect this vote has on the total environmental picture, as well as what the total effect is on the average citizen of Montana. Some of these items are:

- 1) Is this a real problem that affects people? If so, how many people will have an adverse problem and how many will benefit by the use of pesticides?
- 2) Do these applications affect the environment? How many negative effects, and how many positive benefits are there?
- 3) Is the proposed legislation fairly written? Is it needed?
- 4) Is HB 637 cost effective?

March 27, 1991

3-27-91 pm  
HB 637

I submit that on the basis of a total of 53 years of application of various pesticides by the two owners of my business, an estimated 30,000 jobs have been performed with only one formal complaint being filed. The health hazards are being dealt with by diligent attempts to minimize over-spray, by applying pesticides when winds are nominal, and when the chance of someone coming into contact with the spray is at a minimum. Such things as observing the temperature at the time of application is very crucial to lessen the danger of off-target application. I am aware of the concerns of the people I work for and for the neighbors next door.

In response to item two, trees and shrubbery remove carbon dioxide and carbon monoxide from the air while emitting oxygen if the leaves are healthy. The absorption of CO<sub>2</sub> and CO by the leaves results in their conversion into energy for the tree to grow. However, if the leaves are eaten by insects, this process is slowed, and in severe cases, the tree dies. This loss affects the property owner and it affects all of us directly because it no longer provides the control of some of the air contaminants, and replenishing the oxygen supply which helps the people who are in a poor state of health the most.

In my opinion, this proposed legislation is not the will of the majority of the people. The majority of the people are totally unaware of what this piece of legislation means to them. This piece of legislation is a great exaggeration of the very small problem. I must say though, that I fully realize that just one severe reaction by a person is one too many. But, compare this apparently small number of actual cases reported with the problem experienced by the tobacco user and the effects this has on the user and those around the user. The health problems that these people incur are several times more serious. The problems of adverse reactions by people from the use of pesticides pales by comparison.

Is HB 637 fairly written?

I suggest that it is a case of undue over reaction. I visited with a person in the Montana Department of Agriculture and when I asked how the homeowner was going to be advised of a complaint and how the homeowner or renter would be dealt with, I was told that a phone call would be made to the person who violated this law. In other words, the neighbor would have to tattle on his neighbor, and the violator would then receive a phone call from the Montana Department of Agriculture. What about the commercial applicator, and how would he be advised of a complaint? The commercial applicator would face the possibility of having his license revoked and being put out of business, or fined, or both. This then becomes a clear case of discrimination and probably is unconstitutional because of the method of enforcement that is being proposed.

How would the homeowner be handled for a repeat offense? In all probability, he would receive another phone call, but it is possible that a trip to that residence may be required. All of these added enforcement activities of making phone calls, or going to a residence just adds another burden to an already overburdened state government, and at additional cost to the taxpayer. I think it is wrong to think that this legislation will not cost the taxpayer more money.

March 27, 1991

Ex. 2  
3-27-91 PM  
HB 637

We as citizens of Montana are already loaded up with laws that may or may not be enforced simply because there are not enough people or enough money to go around to those entities that have a greater bearing on the majority of the people and are much more important to the general population.

The cost to me as an applicator must be pointed out. It is estimated that a sign with eighty square inches, made with a fluorescent ink will cost a minimum of \$2.50 each. Some yards would require six signs, with three signs the minimum. I estimate this will cost me at least \$6,500.00 per year. This would raise my expenses by 23% over my 1990 expenses.

The added expenses could be very insignificant compared to the possibility of an injury suffered by a lawn mower operator or by a small child being struck in the eye by a playmate after finding this sharpened stick from the sign post sticking in the lawn. This piece of legislation could end up costing more in litigation in one incident to a business that has not been sued once in 53 years of operation.

I hope that this gives you, as Legislators, an idea of what effect this may have on the citizens of Montana as well as those of us who are trying our best to do a professional job which the business or individual has hired us to do. To make a better looking yard or to spruce up the parks and landscape.

I urge you to vote against this proposal. It is not needed. Old laws are already on the books to deal with the commercial applicator who does a sloppy job. It has worked in the past and the old axiom applies, "if it ain't broke, don't fix it." We do not need additional, frivolous regulations. I say that you must kill this bill, or recommend a "Do Not Pass". There are countless many more important jobs to do on the floor of the Montana Senate than to clutter up their agenda with a bill that, in my opinion, is a poor piece of legislation.

Thank you for hearing my concerns about HB 637.

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Signs

Serving The Green Industry.

SENATE NATURAL RESOURCES

EXHIBIT NO. 3

DATE

3-27-91 pm  
113 637

# PROFESSIONAL POSTING SIGNS

## Designed Specifically For The Green Industry

- The enclosed stake is a **miniature sample**. Top clip and spike are actual size; **actual height of regular stake is 16 inches**.
- The enclosed sign is a representative of quality only. R.N.D. Signs will work with your local pesticide office to design your sign to conform to requirements of your state if applicable. Optional signs are enclosed.
- Minimum order is 1,000. Quotations are available on quantities over 30,000.



Miniature sample shows material and construction of stake.

### SAVE 5%

ON ORDERS PLACED FOR WINTER MASS PRODUCTION.

#### Prices Include Sign & Stake

|             |           |
|-------------|-----------|
| 1,000       | .18 each  |
| 2,000       | .18 each  |
| 3,000       | .16 each  |
| 4,000       | .14 each  |
| 5,000-9,000 | .12 each  |
| *10,000     | .10 each  |
| *20,000     | .072 each |
| *30,000     | .069 each |

Above 30,000, call for special quote.

Prices are for 4" x 5" or 6" x 6" sign.

\*Prices for 6" x 6" in quantities of 10,000 and above, add 1/2 cent each.

Add freight and sales tax where applicable.

Actual size of stake is 16 inches.

Directions: Slip sign into clip with large ring behind sign, and insert tab through hole at bottom of sign.

## ORDER TODAY!

PHONE:

IN MINNESOTA

1-800-328-4009

612-926-1315

EXHIBIT NO. 4DATE 3-27-91 PMBILL NO. HB 637WITNESS STATEMENT

To be completed by a person testifying or a person who wants  
their testimony entered into the record.

Dated this 27 day of MARCH, 1991.

Name: JAMES TERRY

Address: P.O. Box 4125

Chula, MT

Telephone Number: 722-4447

Representing whom?

Customized Post Control

Appearing on which proposal?

HB 637

Do you: Support?       

Amend?       

Oppose? X

Comments:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY

EXHIBIT NO. 5DATE 3-27-91 pmBILL NO. HB 637WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27<sup>th</sup> day of MARCH, 1991.

Name: LARRY CHVILICK

Address: P.O. Box 6427

Bozeman, MT

Telephone Number: 587-7722

Representing whom?

AMTOP / NITRO-GREEN Bozeman

Appearing on which proposal?

HB 637

Do you: Support?        Amend?        Oppose? X

Comments:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY

EXHIBIT NO. 6DATE 3-27-91 PMBILL NO. HB 637WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: Scott Selstad

Address: 3012 Vaughn Rd

Great Falls MT 59404

Telephone Number: 452-5158

Representing whom?

Lawn Ranger Spray Service

Appearing on which proposal?

HB 637

Do you: Support? ☐ Amend? ☐ Oppose? ☒

Comments:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY



EXHIBIT NO. 7  
DATE 3-27-91 PM  
BILL NO. HB 637

WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: John Mullette (Orkin Exterminating)

Address: 911 5<sup>th</sup> St. S.  
Great Falls MT

Telephone Number: 406-453-1476

Representing whom?  
Orkin Exterminating Co. Inc.

Appearing on which proposal?  
HB-637

Do you: Support?        Amend?        Oppose? XX

Comments:  
This Bill will impact the end consumer  
and a badly overtaxed state budget  
will also put quite a few Co. out of business

EXHIBIT NO. 8DATE 3-27-91 PMBILL NO. HB 637WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: Gene R. Barry

Address: P.O. Box 1871

Bogeman, MT 59771-1871

Telephone Number: (406) 586-6042

Representing whom?

Self Counsel

MT Assn. of Nurserymen & Parks & Prairies Superintendents Assn.

Appearing on which proposal?

HB #637

Do you: Support?       

Amend?       

Oppose? X

Comments:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY

# Think of It This Way

Because of advances in analytical equipment and measurement techniques, trace elements of synthesized and natural chemicals can be detected in parts per billion or even parts per trillion. The following comparisons may put these numbers in better perspective.

Think of **one part per million** as:

- 1 inch in 16 miles,
- 1 minute in 2 years,
- 1 cent in \$10,000,
- 1 ounce of salt in 31 tons of potato chips, or
- 1 bad apple in 2,000 barrels.

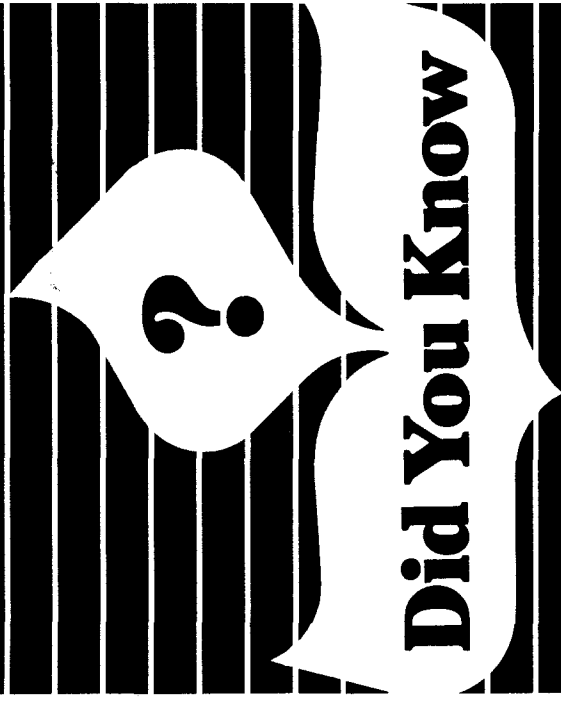
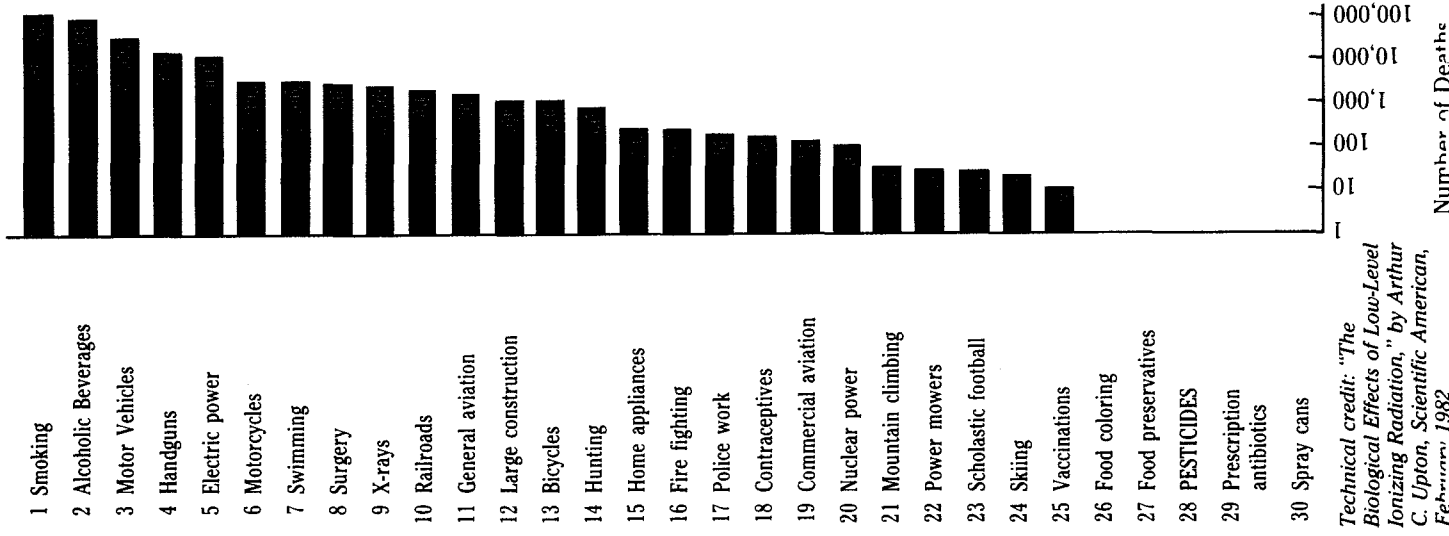
**One part per billion** compares with:

- 1 inch in 16,000 miles,
- 1 second in 32 years,
- 1 cent in \$10 million,
- 1 pinch of salt in 10 tons of potato chips,
- 1 lob in 1,200,000 tennis matches, or
- 1 bad apple in 2 million barrels.

**One part per trillion** compares with:

- 1 postage stamp in an area the size of Dallas,
- 1 inch in 16 million miles (more than 600 times around the earth),
- 1 second in 320 centuries,
- 1 flea on 360 million elephants,
- 1 grain of sugar in an Olympic-sized pool, or
- 1 bad apple in 2 billion barrels.

# The Actual Risks



# Did You Know

*What activities or products do*

*you think carry the greatest risks?*

*How much do you know about*

*food production in the U.S.?*

*Following are some quick tests*

*you can take to test your knowledge*

*in these areas. You may surprise yourself*

*with how much you really do know.*

# Rank the Risk

What activities or products do you think carry the greatest risks? The following list of 30 hazards were ranked by Decision Research (as reported by Scientific American) in terms of perceived risks according to several different groups and actual risks based on scientific data. Rank them from most to least risky and then turn the page to see how your perceptions compare to the scientific facts.

- Alcoholic beverages \_\_\_\_\_
- Bicycles \_\_\_\_\_
- Commercial aviation \_\_\_\_\_
- Contraceptives \_\_\_\_\_
- Electric power \_\_\_\_\_
- Fire fighting \_\_\_\_\_
- Food coloring \_\_\_\_\_
- Food preservatives \_\_\_\_\_
- General aviation \_\_\_\_\_
- Handguns \_\_\_\_\_
- Home appliances \_\_\_\_\_
- Hunting \_\_\_\_\_
- Large construction \_\_\_\_\_
- Motorcycles \_\_\_\_\_
- Motor vehicles \_\_\_\_\_
- Mountain climbing \_\_\_\_\_
- Nuclear power \_\_\_\_\_
- Pesticides \_\_\_\_\_
- Police work \_\_\_\_\_
- Power mowers \_\_\_\_\_
- Prescription antibiotics \_\_\_\_\_
- Railroads \_\_\_\_\_
- Scholastic football \_\_\_\_\_
- Skiing \_\_\_\_\_
- Smoking \_\_\_\_\_
- Spray cans \_\_\_\_\_
- Surgery \_\_\_\_\_
- Swimming \_\_\_\_\_
- Vaccinations \_\_\_\_\_
- X-rays \_\_\_\_\_

# Test Your Food & Farm IQ

Test your knowledge of food and farm production. Answer as many questions as you can, then check your decisions with the answer box.

1. There are 4.5 billion people on Earth today. What is the population expected to be by the year 2000? (a) 3 billion (b) 5 billion (c) 6.2 billion (d) 8 billion
2. U.S. farms are the most productive in the world. One farm family now grows enough to feed \_\_\_\_\_ people. (a) 4 (b) 16 (c) 27 (d) 62 (e) 80
3. In India where 65 percent of the people are farmers, 2/3 of the income goes for food. In Russia, 39 percent are farmers and more than half the income goes for food. In the United States, less than 15 percent of our income goes for food. What percent of the U.S. population are farmers? (a) 2 (b) 8 (c) 20 (d) 25 (e) 33
4. U.S. farms are fewer in number but larger in size. They've been mechanized and many now concentrate on a few crops. Compared with 1910, what are the total crop acres being farmed today? (a) 5% less (b) 20% more (c) 30% more (d) 50% more (e) same
5. Which state is the leading agricultural producer in the United States? (a) Illinois (b) Iowa (c) Texas (d) California (e) Florida
6. Farm chemicals protect crops from insects, weeds and diseases. Without this protection, food prices would soar. Can you guess what percent? (a) 2% (b) 10% (c) 20% (d) 40-75%
7. On occasion, epic disasters have devastated key crops. Which farm or forest pest crisis proved the most costly? (a) California's Medfly invasion, 1980-81 (b) Ireland's potato blight, 1840s (c) Midwest's corn blight, 1970
- (d) Northeast's gypsy moth infestation, 1970s and 1980s
- (e) Southeast's fire ant infestation, 1970s and 1980s
8. There are three major groups of crop protection chemicals used by farmers to guard against insects, plant disease and weeds. Which group is the most widely used? (a) Insecticides (b) Fungicides (c) Herbicides
9. The quality, quantity and variety of foods we enjoy today contribute to longevity. Since 1900, the average life span in the United States has increased from 47.3 years to \_\_\_\_\_ years. (a) 52 years (b) 59.8 years (c) 64 years (d) 74.7 years
10. To develop a new crop protection chemical, researchers need between 7 and 10 years and must invest some \$ \_\_\_\_\_. (a) \$100,000 (b) \$2 million (c) \$20 million (d) \$35 million

## ANSWER BOX

1. (c) World population in the year 2000 is expected to be 6.2 billion. 2. (e) One U.S. farm family today feeds 80 people. Only 15 years ago, the number was 47. 3. (a) Today, only about 2 percent of our population are farmers.
4. (e) Today's farmers grow crops on the same acreage as in 1910, but they feed millions more because of increased productivity from every acre. 5. (d) California, with more than \$14 billion in annual farm income. It produces almost half of the nation's fruits and vegetables. Iowa ranks second.
6. (d) Without crop protection, food prices would jump 40 to 75 percent, according to university studies. Shortages, lower quality would be common. 7. (b) Each pest crisis triggered disaster. But in the 1840s, Ireland's potato blight brought crop failures and starvation to about a million people. Another 2 million emigrated to the United States.
8. (c) Herbicides — compounds used to control weeds — are the most widely used crop chemicals. Herbicides eliminate weeds that compete for moisture and nutrients, so food crops benefit. 9. (d) The average life span of a child born in the United States in 1984 is 74.7 years reports the National Center for Health Statistics. 10. (d) This \$35 million invested to discover and develop a crop chemical does not include cost of a manufacturing plant. Majority of the costs are for tests to assure that the new compound is safe for the environment.

Source: USDA

EXHIBIT NO. 10DATE 3-27-91 pmBILL NO. H.R. 137WITNESS STATEMENT

To be completed by a person testifying or a person who wants  
their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: Dennis RobertsAddress: 20 SunsetBillings, MT 59105Telephone Number: 406 256-9499

Representing whom?

Chenoweth - AMTOD

Appearing on which proposal?

H.R. 633Do you: Support?       Amend?       Oppose? X

Comments:

## WITNESS STATEMENT

EXHIBIT NO. 11DATE 3-27-91 PMBILL NO. HB 637

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: Basil CulverAddress: Box 5314 Helena 59604Telephone Number: 443-5088

Representing whom?

AMTCP / Nitro Green

Appearing on which proposal?

HB 637Do you: Support? ☐ Amend? ☐ Oppose? ☒

Comments:

Given to Committee

WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: John Sample

Address: 2507 Roberts

Helena, MT

Telephone Number: 443-7487

Representing whom?

Assoc. of MT Aerial Applicators  
Assoc(S) of MT turf and Ornamental Professionals

Assoc. (S) of MT turf and Ornamental Professionals

Appearing on which proposal?

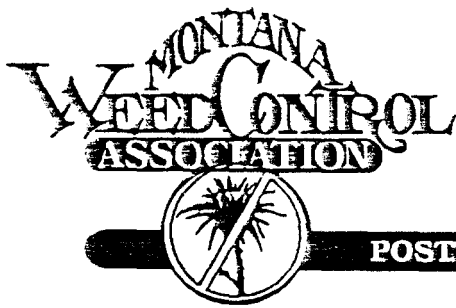
H/13637

Do you: Support? \_\_\_\_\_ Amend? \_\_\_\_\_ Oppose? X

Comments:

GIVEN TO COMMITTEE

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY



SENATE NATURAL RESOURCES  
EXHIBIT NO. 13  
DATE 3-27-91 pm  
BILL NO. HB 637

POST OFFICE BOX 1911 • BOZEMAN, MONTANA 59771

WRITTEN TESTIMONY FOR HB 637  
MONTANA WEED CONTROL ASSOCIATION  
DAVE BURCH, PRESIDENT ELECT AND LOBBYIST

MARCH 27, 1991

The Montana Weed Control Association opposes this bill. This bill states that a Weed District must give notice of intent to spray an area within incorporated cities and towns. This bill may be fine for Counties that have the capability of doing this by using radio, T.V. or a daily paper, but what are the counties to do that do not have these capabilities.

The Counties that can not notify because they do not have these capabilities would be in violation. I attended a Weed District Training program earlier this week, twenty eight (28)(please see attached list), were represented at this meeting, I took a pole of the Counties, and out of the 28, 13 of them did not have a daily paper or a radio station within there County. As Law Makers you must see how unfair and impossible this bill would be for some counties.

The Montana Weed Control Association does oppose this bill and we hope you will defeat it.

Thank you



Σx. 13  
3-27-91 pm  
HB 637

28 COUNTIES REPRESENTED AT MEETING / 13 OUT OF 28 COUNTIES DO NOT  
HAVE RADIO OR DAILY NEWSPAPER CAPABILITY.

1. CHOUTEAU
2. CARTER
3. FALLON
4. BROADWATER
5. MINERAL
6. GLACIER
7. GRANITE
8. JEFFERSON
9. LIBERTY
10. LAKE
11. ROOSEVELT
12. WHEATLAND
13. STILLWATER

Amendments to House Bill No. 233  
Third Reading Copy

DATE 3-27-91 AM  
BILL NO. HB 233

Requested by Sen. Thayer  
For the Senate Committee on Natural Resources

Prepared by Gail Kuntz  
March 27, 1991

1. Title, line 5.

Following: "~~WAY~~"

Insert: "OR THE RIGHT TO MATCH A COMPETING LEASE OFFER FOR"

2. Title, line 10.

Following: "RIGHT-OF-WAY;"

Insert: "REQUIRING COMPENSATION TO THE LESSEE IF THE LEASE IS  
TERMINATED;"

3. Page 3, line 12.

Following: "~~purchase~~"

Insert: "or match offer -- lease preference"

4. Page 4, line 13.

Following: line 12

Insert: "(2) The leaseholder of a leasehold site described in subsection (1) must be given the opportunity to match a competing lease offer upon expiration of an existing lease. If the leaseholder matches the new lease offer, the lease must be given to the leaseholder. When a person other than the current leaseholder becomes the lessee of a leasehold site described in subsection (1) or the lease is terminated by the lessor for reasons other than nonpayment of the lease, the lessor or new lessee shall compensate the former leaseholder for the fair market value of improvements made by the former leaseholder."

Renumber: subsequent subsections

5. Page 4, line 23.

Following: "SUBSECTION"

Strike: "(2)"

Insert: "(3)"

SENATE NATURAL RESOURCES

EXHIBIT NO. 2

DATE 3-27-91 PM

BILL NO. HB 233 HB 924

HB 233 and HB 924

Senate Natural Resources Committee

March 27, 1991

Testimony of Montana Agricultural Business Assn., Montana Grain Elevator Assn, Montana Seed Trade Assn., Pacific Northwest Grain & Feed Assn.

Mr. Chairman, members of the committee, for the record my name is Pam Langley and I am the executive director of the Montana Agricultural Business Association. I also represent the Montana Grain Elevator Association, the Montana Seed Trade Association and the Pacific Northwest Grain and Feed Association. We support both HB 233 and HB 924.

We wholeheartedly support House Bill 233. It is vitally important to grain elevators, fertilizer, seed and crop protection product dealers who have substantial investments in facilities on land they lease land from railroads. These include primarily co-ops and small independent businesses.

While in the past, we leased from railroads who wanted and encouraged our business to promote shipping on their railroads, the scene is now changed. We are now leasing from real estate companies whose only interest is how much return they can realize from the dollar. And, we are caught. We made improvements on the leased land in a time when railroads would not sell us or anyone else the land. That was the verbal part of the contract when we invested in facilities next to railroads. Now, the land we lease has been transferred to a real estate company and is being leased or sold to the highest bidder and we must remove our improvements within 30 to 90 days.

Our members have numerous horror stories to tell--a fertilizer dealer being forced to buy polluted land adjacent to his as a condition to purchase land on which his facility is located, sale of land out from under them, having to pay three and four times the land value. The stories go on and on.

And, it is our understanding that Glacier Park Company, Burlington Resources' real estate company, is on a self destruct course. They will divest themselves of their land holdings in the very near future--to any one who will pay their price or to another real estate company.

This legislation is very similar to Senate Bill 455 which all members of this committee voted for on the Senate floor and all but two of you co-sponsored with Sen. Gene Thayer.

The only difference between this legislation and the bill the Senate already passed is language on the right to match a competing lease offer and compensation to the lessee if the lease is terminated. These are in the amendments being proposed today by Sen. Thayer. We support this additional language. It protects us from being outbid for our leases and for a new lessee to purchase our improvements should we not be able to meet the bid. The language was taken from existing law governing leasing of state lands. Senate Bill 455 is now tabled in the House Natural Resources Committee awaiting your action on House Bill 233 and House Bill 924.

We also support House Bill 924--a committee bill that grew out of the House hearing on House Bill 233. The language in House Bill 233 and House Bill 924 was carefully crafted by a subcommittee chaired by Rep. Measure to assure that our first right of refusal to purchase the land on which we have a substantial investment did not conflict with easements for the railbeds themselves.

You will note that House Bill 233 and House Bill 924 are tied together--both must pass or neither does. This option was chosen by the House Natural Resource Committee when time was short before transmittal and amending the provisions of 924 into 233 was not possible due to the time frame.

We urge your passage of both bills. And we particularly want to emphasize that passage of House Bill 233 is essential this session--1993 will be too late.

I also want to note that I am authorized today to speak for the Montana Grain Growers Association which also supports these two bills.

SENATE NATURAL RESOURCES

EXHIBIT NO. 2

DATE 3-27-91 PM

BILL NO. HB 233 HB 924

HB 233 and HB 924

Senate Natural Resources Committee

March 27, 1991

Testimony of Montana Agricultural Business Assn., Montana Grain Elevator Assn, Montana Seed Trade Assn., Pacific Northwest Grain & Feed Assn.

Mr. Chairman, members of the committee, for the record my name is Pam Langley and I am the executive director of the Montana Agricultural Business Association. I also represent the Montana Grain Elevator Association, the Montana Seed Trade Association and the Pacific Northwest Grain and Feed Association. We support both HB 233 and HB 924.

We wholeheartedly support House Bill 233. It is vitally important to grain elevators, fertilizer, seed and crop protection product dealers who have substantial investments in facilities on land they lease from railroads. These include primarily co-ops and small independent businesses.

While in the past, we leased from railroads who wanted and encouraged our business to promote shipping on their railroads, the scene is now changed. We are now leasing from real estate companies whose only interest is how much return they can realize from the dollar. And, we are caught. We made improvements on the leased land in a time when railroads would not sell us or anyone else the land. That was the verbal part of the contract when we invested in facilities next to railroads. Now, the land we lease has been transferred to a real estate company and is being leased or sold to the highest bidder and we must remove our improvements within 30 to 90 days.

Our members have numerous horror stories to tell--a fertilizer dealer being forced to buy polluted land adjacent to his as a condition to purchase land on which his facility is located, sale of land out from under them, having to pay three and four times the land value. The stories go on and on.

And, it is our understanding that Glacier Park Company, Burlington Resources' real estate company, is on a self destruct course. They will divest themselves of their land holdings in the very near future--to any one who will pay their price or to another real estate company.

This legislation is very similar to Senate Bill 455 which all members of this committee voted for on the Senate floor and all but two of you co-sponsored with Sen. Gene Thayer.

The only difference between this legislation and the bill the Senate already passed is language on the right to match a competing lease offer and compensation to the lessee if the lease is terminated. These are in the amendments being proposed today by Sen. Thayer. We support this additional language. It protects us from being outbid for our leases and for a new lessee to purchase our improvements should we not be able to meet the bid. The language was taken from existing law governing leasing of state lands. Senate Bill 455 is now tabled in the House Natural Resources Committee awaiting your action on House Bill 233 and House Bill 924.

## GOLD COUNTRY RAILS-TO-TRAILS

## TESTIMONY

HB 924 RAILROAD ABANDONMENT

Senate Natural Resources Committee - Mar 27, 1991

by George McCauley - 443-0131

In 1920 the Interstate Commerce Commission was given the responsibility of approving or denying proposed rail abandonments.

Under Section 809(C) of the Railroad Revitalization and Regulatory Act of 1976 - The ICC can put a "Public Use Condition" on an abandonment order; temporarily preventing the railroad from selling its land on the open market and requiring it to negotiate with a specific public agency.

The public use condition holds for a maximum of 180 days and will only be granted by the ICC if proper procedures are followed.

Under Section 8(D) of the National Trail Systems Act of 1987 the ICC can essentially put the route into Railbank for possible future Rail use and assign the interim use of the corridor to a qualified public or private agency; If that agency agrees to manage the trail and cover all associated expenses - Including taxes and liability.

Abandonment normally will be done by the Railroad placing the track into category (1) status, on its systems diagram map - meaning it can institute abandonment proceedings four months later.

Notice of intent to abandon is filed only with one state agency.

- a. The State Department of Commerce (Dept of Transportation)
- b. The ICC and several other Federal Agencies.
- c. Shippers along the line.

No less than 15 nor more than 30 days after the intent to abandon notice has been filed - The railroad files an application to abandon.

From the Date of Filing of the application - Public Use Advocates - or Trail Advocates have 30 days in which to formally request a Section 809(C) Public Use Condition and/or Interim Trail use assignment Section (D)

Exceptions to the above for the railroad is if a railroad has not had any traffic for two years - The Company can file for an exemption from the standard procedures - in which case - a

Ex. 1  
3-27-91p  
HB 924

local public or private agency has only 20 days to file for Rail Banking.

Thus we can see that it is imperative that the State Dept of Commerce notify interested agencies immediately - and that these agencies reply to the Dept of Commerce in a timely manner their intent for the proposed abandoned Rail Bed.

#### BENEFITS OF RAIL BANKING

A. Recreational Trails

B. Future use of Rails should commence increase in an area and rails were needed.

C. Use of Trails in emergencies for Transportation of goods and services.

D. By passes for highways during flooding, earthquakes etc.

E. Handicapped Trails - Normally Railbeds have no more than 3% grade.

EXHIBIT NO. 2

DATE 3-27-91 PM

BILL NO. HB 924

Amendments to House Bill No. 924  
Third Reading Copy

Requested by Rep. Measure

March 27, 1991

1. Title, line 10

page 2, line 10

page 2, line 18

page 5, line 5.

Following: "TRANSPORTATION,"

Insert: "or other interested persons,"



EXHIBIT NO. 3DATE 3-27-91 pmBILL NO. HB 924WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of MARCH, 1991.

Name: Lloyd T BOWEN

Address: 509 W BARNES

LEWISTOWN MT 59457

Telephone Number: 538-8535

Representing whom?

SELF

Appearing on which proposal?

HB 924

Do you: Support?        Amend?        Oppose? X

Comments:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY

Statement as Opponent of House Bill # 924

EXHIBIT NO. 3

DATE

3-27-91

BILL NO.

HB 924

Mr. Chairman, members of the Committee,

My name is Loyd Bowen. I own a ranch adjacent to the railroad that could be affected by House Bill 924. I would ask this committee to kill this bill. I believe that this is a needless intervention by the State into an area where intervention is not needed.

Article 60-11-111 originally addressed a public need for transportation and as such was good legislation. However I know of no instance where it was used. The injection of "recreational interests" into this statute would cause many problems that are not addressed by House Bill 924.

1. When railroad rights-of way are abandoned, they are usually in 100 foot corridors with segments that are in excess of 100 feet. House Bill 924 asks the Department of Commerce to intervene of behalf of interested recreationalists in helping them obtain ownership or easements of corridors of 17 foot widths. The Bill does not address what is to be done with the remaining 83 feet!

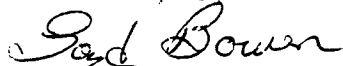
2. Where this Bill addresses transportation interests it is concerned with the full "Right-of Way" but on the recreational section, it addresses only the "Railbed" wording which is the 17 foot corridor. It would seem that the Department of Commerce should have some direction provided by this Bill.

3. If the Department of Commerce is directed to assist

ZX. - 11:57 PM  
3-27-91 PM  
"Persons representing recreational interests", shouldn't the Department be provided some guidelines to assure that these "persons" are at least financially capable of handling the responsibilities of land stewardship? Either as a landowner or a lessee, some determination should be made to assure the fences will be provided and maintained, weeds will be controlled and provisions will be made for other general liabilities.

4. The original intention of 60-11-111 addressed interests in future transportation services and corridors for the needs of "appropriate local authorities" and as such had no need to address land surplus to the abandoned corridor nor the accountability of the final recipient of these lands. That is not how it will be if "924" passes as written.

Thank you,



Loyd Bowen  
509 Barns  
Lewistown, Montana 59457

HB 924

SENATE NATURAL RESOURCES

EXHIBIT NO. 3

DATE 3-27-91 pm

BILL NO. HB 924

### Introduction

Some substantial problems would have been identified if landowners had been consulted during the early, formative stage of a proposal to develop a bicycle/jogging path along Burlington Northern's Heath spur right of way. Adjacent landowners have lived for nearly three generations with the railroad as a neighbor that split many of their ranches in two.

Over the years, landowners have maintained two fences where none would have been needed were it not for the railroad. They have controlled weeds that the railroad couldn't or wouldn't control. Moving stock across the right of way has required a couple of extra hands to save the effort of chasing down cows before they got to town or the next bridge. Machinery has picked up dents and bends and breaks by being dragged across the track.

Residents were afraid to hope that one day they'd be able to unify the two sides of their operation. To have such a hope would have meant hoping for the loss of an important part of our local economy. Nonetheless, the loss occurred when the U. S. Gypsum's Heath plant closed.

Instead of gaining an opportunity to unify their operations, landowners now find themselves confronted with a proposal that would not only perpetuate existing difficulties, but immensely compound them by creating public access where none has heretofore existed. The newly-created access, along the soon to be abandoned right of way, would be interior to several ranches, not along property lines, in an area which simply can not be adequately patrolled.

It should come as no surprise to someone familiar with the residents, the ranch operations, or the country that the most directly affected landowners are upset. Instead of a slight improvement in their ability to fully enjoy their property, they are faced with the immediate threat that their lives are going to get more complicated, that their operating expenses will go up, and that, in all likelihood, they'll be subject to harassment, lawsuits, and property loss.

The following are some of the difficulties associated with the proposed path.

### Difficulties Associated With Jogging/Bicycle Path Along Heath Spur

Open public access along the nearly 10 miles of Burlington Northern right of way will undoubtedly spawn a high level of continuing difficulty for adjacent landowners.

The following will impair owners' enjoyment of their property as it now exists:

1. Potential for litigation will increase. Owners will find themselves held liable in the courts for situations in which reasonable control does not eliminate danger to the public. Other litigation may be

brought to change long existing land uses. Some examples are:

- a. Injuries to path users resulting from livestock straying onto path. (e.g. escaped bulls.)
- b. Injuries to users that trespass onto adjacent private land. (e.g. trespass in bull pasture or equipment yard.)
- c. Injuries to users that result from authorized actions of landowners on the path. (e.g. User slipping on manure after landowner has moved stock across path.)
- d. Litigation directed toward changing adjacent private land uses that conflict with the path's use. (e.g. equipment yard being unsightly or adjacent short-term intensive use such as weaning detracting from the path user's experience.)

2. Conflict will arise between landowners and those who will take advantage of the trail to vandalize, poach, or steal. Owners will find that they are the first line of enforcement of use restrictions. The trail's location doesn't lend itself to enforcement of use restrictions or law enforcement. The following are some examples of potential conflicts:

- a. Owners will most often be the first to notice and report any violations of use restrictions by motorcycles, snowmobiles or four-wheel-drives. It is likely that, in many cases, the owner will be the only witness and will be required to make complaint, if the use restrictions are to be enforced at all. In addition to the substantial burden upon the landowners' time, there is considerable likelihood that landowners will be targets for retaliation.
- b. Substantial enforcement problems will be encountered, if the path is to be free of firearms. More substantial problems will occur if it is not. It's the nature of kids that BB guns and twenty-twos will be used along the path's course. Livestock will be lost; buildings, homes and equipment damaged. Hunting trespass will increase significantly because people will have legal access into the middle of private land blocks and then will believe that they're unobserved as they move onto private land. Poaching will increase.
- c. There has already been some increase in vandalism and theft in our area since the development at East Fork reservoir. The path will place our overworked deputies in an even more untenable situation. They will have to race the winter's night snowmobiler from Heath to Spring Creek Road. They'll have to respond to the significant increase in trespass complaints. Of particular concern is that some buildings along the route are occasionally unoccupied.
- d. Potential for wildfire will increase substantially along the path. Children playing with fire will provide the primary risk. Vegetation along the path will likely be kept substantially natural, which means an abundance of fine, flashy fuels that are conducive to a fast spreading fire. Any such fire will have to be fought very aggressively because of adjacent homes.
- e. The path will provide a myriad of sites for spring and summer kegers. Adjacent landowners will be faced with the choice of calling law enforcement or dealing with the aftermath.
- g. Substantial amounts of litter are likely along the path's length. Illegal dumping is also likely.
- h. Landowners, who by default now control weeds on the right of

way, would seek to be relieved of that responsibility,

3. One would not seek a rifle-barrel straight, elevated grade if one were to design either a jogging or a bicycle path. Recreation planners and landscape architects would call for, instead, gentle bends, slight variations in slope, and an overall design that would reduce the users' ability to see one another for several miles at a time. Without substantial work, the Burlington Northern right of way really isn't suitable for an attractive, notable path. Once it's limitations become obvious, however, it's likely that landowners will be subjected to pressure for additional easements and acquisitions.

4. The recent experiences of Montana Power Company and the BLM along the Upper Missouri Wild and Scenic River demonstrate the extent to which liability is incurred when the public is "invited" to use facilities such as the proposed path. All adjacent landowners will have to bear the expense of substantially increasing their liability insurance. Whatever legal entity might control the path will have to maintain a substantial amount of liability insurance and, if the entity is a local government agency there will be increased pressure on tax dollars.

#### SUMMARY

The proposed path is fraught with legal and practical problems. Similar developments -- such as the Ah Nei environmental education site near Shepard, Montana -- have suffered from vandalism and abuse and have been abandoned. Much of the abuse, however, has continued after sites are abandoned. Adjacent landowners continue to suffer the consequences.

The proposed path offers no unique qualities that are like to improve central Montana's position as a destination for tourists. Nor is it likely, because of its shortcomings, to cause tourists passing through to linger for an additional day or two. It will be used by few for the purposes for which it was acquired. The problems at Lewistown's rifle range provide ample evidence that it will be abused by many.

The proposed path will ensure years of conflict, increased costs to landowners, increased burden upon the taxpayers, further erosion of landowner rights, reduction of wildlife populations and reduced property values.

Other'n that, it's just not a real good idea.

Thank You  
Soyd T Bower  
509 W BARNES  
LEWISTOWN, MT.  
59457

WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: CLARENCE COMES

Address: HEATH ST RT  
LEWISTOWN MT 59437

Telephone Number: 538-3508

Representing whom?

self

Appearing on which proposal?

H.B. 924

Do you: Support?       

Amend?       

Oppose? X

Comments:

SENATE NATURAL RESOURCES

EXHIBIT NO. 4

DATE 3-27-91 pm

BILL NO. HB 924

Mr. Chairman, members of this Committee,

My name is Clarence Comes. I am from Lewistown, Montana and my wife and I own a ranch that could be affected by House Bill 924.

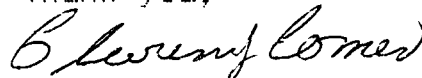
I am representing a group of individuals from Lewistown, Montana opposed to this Bill for the following reasons.

There is no consideration given to adjacent property owners in House Bill 924. This Bill is definitely detrimental to rural property owners because it does not state who would be responsible to insure liabilities in the areas of weed control, fences, bridges and crossings. The tax base would be lost if the railroad property was given to a recreational group. Historically, abandoned railroads have been sold to adjoining landowners.

Part of my testimony is a letter signed by the Fergus County Commissioners opposing House Bill 924.

As a representative from interested groups in Lewistown, Montana, I urge this committee to reject House Bill 924.

Thank you,



Clarence Comes  
Heath Star Route  
Lewistown, Montana 59457



+ given consideration

SENATE NATURAL RESOURCES

We the undersigned oppose H. B. 924 as there is no consideration given to the landowners adjacent to the railroad.

EXHIBIT NO. 5  
DATE 5-27-91 pm  
BILL NO. HB 924

Phil Matovich  
Bette Matovich  
Don Knox  
Don Boyer  
Kenneth L. Lewis  
Hon. H. Lund  
George W. Grask  
Crawley Grask  
Karon A. Martin  
George Dagnall  
Douglas Dagnall  
Rich Dagnall  
William F. Miller  
John H. Miller  
Mary Lee Comer  
Clement Comer  
George W. Berg  
Sally T. Brown  
Amy J. Brown  
Loretta LeRoy Thomas  
Bill O. Ylvaer  
Don Brown  
Frank Haugen  
Gaylord C. Halvorsen  
Beauvly Eklundson  
James Rasmussen  
Dorothy Rasmussen

Lewistown Mont  
Lewistown, Mt  
Lewistown MT.  
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Lewistown, Mt. 5-9-13  
Lewistown, int.  
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Lewistown, Mt.  
Heath Mt.  
Heath Mt

EX. 5

HB 924

We the undersigned oppose H. B. 924 as there is no consideration given to the landowners adjacent to the railroad.

3-27-91

William Schrage  
Cecilia M. Ruffen  
Mary Kay Haugen  
Joni Lynn Haugen  
DANA EASTMAN  
Doug Christensen  
Michael T. Haugen

We the undersigned oppose H. B. 924 as there is no consideration  
given to the landowners adjacent to the railroad.

EXHIBIT NO. 5  
DATE 3-27-91 PM  
BILL NO. HB 924

Roger L. Brown

Don E. Haffner

Monte J. Solberg

Lois Knips

Jason Birdwell

Ted Hipsop

Jane Hipsop

Don Hipsop

Dorothy Hipsop

Ken Bower

Connie Bower

Cliff Burleigh

Dale M. Burleigh

Carl Ann Haffner

Alma Birdwell

Larry Birdwell

Philip E. Stapleton

Tyler Stapleton

Tobias Fiedler

Francis J. Lude

Robert B. Jones

Joanne L. Jones

Frank R. Martin

Betty Martin

Lewistown

Rt. 1 Lewistown, mt

HC 87 Lewistown, Mt

Lewistown Mt

Lewistown mt.

Lewistown, Snt

Lewistown, mt

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Lewistown, Montana

Lewistown, mt.

Lewistown, MT

Lewistown, mt.

# FERGUS COUNTY

## STATE OF MONTANA

Lewistown, Montana 59457

SENATE NATURAL RESOURCES

EXHIBIT NO. 6


DATE 3-27-91 pm

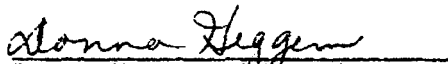
BILL NO. HB 924

TO: Committee

FROM: Fergus County Commissioners

The Fergus County Commissioners want to go on record in opposition to HB 924. The commissioners believe the present law is adequate and see no need for additional legislation.

  
Vernon Petersen, Chairman

  
Donna Heggem, Vice-Chair

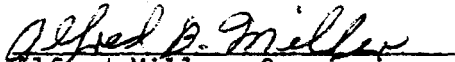
  
Alfred Miller, Commissioner

EXHIBIT NO. 7DATE 3-27-91 pmBILL NO. HB 924WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: Ron Bowen

Address: HC 87 Box 5068

Lexington, MT 59457

Telephone Number: (406) 538-9486

Representing whom?

Self

Appearing on which proposal?

HB #924

Do you: Support?       

Amend?       

Oppose? X

Comments:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY

STATEMENT OF OPPONENT TO HOUSE BILL # 924.

Mister Chairman, Members of this Committee,

My name is

Ron Bowen

Montana and I

Ron Bowen

SENATE NATURAL RESOURCES

EXHIBIT NO. 7

DATE

3-27-91 pm

BILL NO.

HB 924

I am from Lewistown,

In speaking against the passage of House Bill # 924, I would ask the Committee's indulgence while I create a scenario that could arise if this Bill were passed.

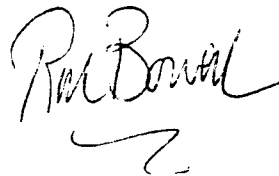
Let's assume that a Railroad Company has complied with all of the many governmental requirements concerning abandonment and now is permitted to "sell" the remaining property.

House Bill #924 as written will now cause the Department of Commerce to assist any recreational group that has indicated an interest in acquiring this property or even acquiring an easement to this land. Now the land that the Railroad Company is trying to sell is at least 100 feet wide and in some cases much wider, but the Department of Commerce can ONLY assist with a corridor that is 17 feet wide as that is a "railbed" as described in H.B. # 924. What is the Railroad Company to do with the remaining 83 or more feet? Would anyone want to buy a corridor that was 100 feet wide that had a 17 foot corridor in the center of it? Would this be a sub-division under current law? Who would fence this and in what manner? If the "Recreational Group" wishes more than a 17 foot width, is the Department of Commerce allowed under this Statute to assist in any manner? When a "Not-for-Profit Corporation" as referred to in this Bill asks the Department of Commerce for assistance,....who determines and/or becomes

Ex. 7  
3-27-91 pm  
HB 924

responsible for the ultimate credibility of the "Coroporation"? In the original Statute (Section 60-11-111) there was transfer of property to "appropriate local Authorities" but now we are talking about a NOT defined entity called a "Recreational not-for\_Profit Corporation. If this undefined group fails to meet the standards of good land stewardship, who becomes responsible for any liability? Has the State aided and abetted and therefore become a party to the transaction?

Mr. Chairman and Members of this Committee, I submit that this abandonment process has worked very well without H.B.# 924 in the past and it can do so in the future. If there is a legitimate recreational need, it can be addressed by a "local authority" now covered by statutes currently in effect. Please put this bad idea to rest.



3/27/91

3-27-91 PM

HB 924

WITNESS STATEMENT

To be completed by a person testifying or a person who wants  
their testimony entered into the record.

Dated this 27 day of MARCH, 1991.

Name: Robert E. LEE

Address: HC 60 Box 350

Judith Gap, mt 59453

Telephone Number: 473-2380

Representing whom?

Self

Appearing on which proposal?

HB 924

Do you: Support? ☐ Amend? ☐ Oppose? ☒

Comments:



Statement of Opponent to House Bill # 924.

SENATE NATURAL RESOURCES

EXHIBIT NO. 8

DATE 3-27-97 pm

BILL NO. HB 924

Judith Gao

Mister Chairman, Member of this Committee,

My Name is Robert E. LEE

I am from Lewistown, Montana

and I have an interest in Land bordering An Abandoned Railroad outside  
Lewistown mt.

I feel that a quick reminder of what these Abandoned Railroad lands are and where they came from is very appropriate during the discussions of House Bill # 924. If you will permit me, I will relate briefly the situation in my personal area.

These Railroad Rights-of Way were purchased from the owners of the lands and became the lawful property of the Railroad. This is NOT government land...NOT Federal....NOT State land, but FEE SIMPLE Railroad land. Even though some of it may have been acquired by by Right of Eminent Domain, and perhaps from an unwilling Seller, it nevertheless was purchased.

Once a Railroad Company abandons a property by meeting all of the requirements of the Interstate Commerce Commission and other regulatory agencies, the property remains the Railroad Company's property to sell.

In the Lewistown area, this is what is happening at this time. The line that is being abandoned is the last segment of a line that extended from Lewistown to Winnett, Montana covering over 65 miles of farm and ranch land. Approximately 55 miles of this line has been abandoned and sold back to the landowners. This has historically been the most common method of selling these Railroad lands as they are abandoned in rural areas. It is the returning of the land to the farms and ranches that they were taken from originally.

Ex. 8  
3-27-91 pm  
HB 924

Now, we have House Bill #924 which request that a Department of the State intervene in the sales process of private land. This may have been understandable when the Statute 60-11-111 was first enacted as it referred to the needs of transportation and utility for "appropriate local authorities". However, the intervention now inserted into the language of the Statute does not just include "local authorities", but recreational interests.....which becomes an entity that is NOT identified.

It is my feeling that if there is not a public need that can be addressed by an "appropriate local authority" these lands should be allowed to be sold back to the adjacent landowners without any intervention from the State of Montana. I urge this Committee to reject House Bill # 924.

→ AS A Member of The Weed Control board of The State of Montana I have Serious Concerns AS TO what is going to happen to <sup>Future</sup> ~~Further~~ Control of noxious weeds in this Area or who is going to be responsible for these weeds

EXHIBIT NO. 9DATE 3-27-91 pmBILL NO. HB 924WITNESS STATEMENT

To be completed by a person testifying or a person who wants their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: George Thompson

Address: 1224 Bl. Lantana

Telephone Number: 535-6882

Representing whom?

Self

Appearing on which proposal?

924

Do you: Support?        Amend?        Oppose? X

Comments:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY

EXHIBIT NO. 9DATE 3-27-91 pmBILL NO. HB 924WITNESS STATEMENT

To be completed by a person testifying or a person who wants  
their testimony entered into the record.

Dated this 27 day of March, 1991.

Name: George HamiltonAddress: North Ave LewistownTelephone Number: 338-9882

Representing whom?

Self  
Appearing on which proposal?924  
Do you: Support? \_\_\_\_\_ Amend? \_\_\_\_\_ Oppose? X

Comments:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY

March 25, 1991

Natural Resources Committee  
Capitol Station  
Helena, Montana 59620

SENATE NATURAL RESOURCES  
EXHIBIT NO. 10  
DATE 3-27-91 PM  
BILL NO. HB 924

## HB 924 Land Use of abandoned Railroads

The use of land is becoming very controversial, be it private or public. This bill attempts to ensure a specific use of land from abandoned railroads regardless of its location and regardless of whether or not there are enough people, joggers, bicyclers, etc., with a recreational interest to support and maintain a recreational trail. Since this bill would provide for a specific use, would the users be able to pay the bills and not be left to general public? A city of 50,000 people would probably have plenty of users while a town of 5000 would not have very many.

The cost of securing and maintaining a trail will depend on its location, whether city suburbs inside city limits, wild and scenic land, or farm and ranch land.

In the suburbs, fencing or barricades of some kind are needed to protect the users from traffic. It should be well lighted as some people would probably use it at night.

Wild and scenic use would be where a railroad had ran thru timbered areas or mountain terrain, involving bridges or trestles over canyons and streams, which should have guard rails for the trails. Otherwise, the trails could not be fenced. HB 924 states that the State of Montana shall preserve the integrity of these railbeds. Does this mean that the abandoning railroad is obligated to leave any bridge or trestle intact?

If the railroad ran thru farm and ranch land, it is logical the acreage should be sold to the affected farmers and ranchers. The responsibility for fencing and liability would be a part of the landowners usage.

A recreational trail thru a farm and ranch land would be a lawyer's dream, a continual source of conflict. Since these trails would be public, it would open ranch homes and buildings to vandalism, thievery, and poaching. It would be impossible to provide any type of fencing which would be practical that ranchers could move machinery and livestock thru without gates. Gates that have to be opened and closed would be totally unacceptable.

We do not see any necessity for haste to pass a bad bill. What the bill will be, depends on the construction of the railbed, crossings, bridges, and trestles over creeks or rivers. Is it to be paved or graveled? What type of fencing? How much to protect users from whatever hazards they may encounter? We believe a much better bill could be written.

Don Boyer  
RR1  
Lewistown, Montana 59457

Amendments to House Bill No. 924  
Third Reading Copy

SENATE NATURAL RESOURCES  
EXHIBIT NO. 11  
DATE 3-27-91 pm  
BILL NO. HB 924

Requested by Senator Tveit  
For the Senate Committee on Natural Resources

Prepared by Gail Kuntz  
March 26, 1991

1. Title, line 9.

Following: "ASSIST"

Insert: "ADJACENT LANDOWNERS AND"

2. Page 1, line 23.

Following: "railroad"

Insert: "; and

WHEREAS, the Legislature recognizes that the economic interests of adjacent landowners may be significantly affected by the disposal of abandoned railbeds"

3. Statement of Intent, page 2, line 9.

Following: "OF"

Insert: "persons owning property adjacent to abandoned or vacant railbeds and of"

4. Statement of Intent, page 2, line 17.

Following: line 16

Insert: "adjacent landowner or an"

Following: "REPRESENTING"

Insert: "an adjacent landowner or"

5. Statement of Intent, page 2, line 23.

Following: "AN"

Insert: "adjacent landowner or other"

6. Page 5, line 4.

Following: "ASSIST"

Insert: "persons owning property that is adjacent to abandoned railbeds and"

FOR DISCUSSION PURPOSES ONLY

HOUSE BILL NO. 671 INTRODUCED BY GILBERT, HARPER, ECK, RANNEY,  
BRADLEY, WALLIN, LEE

SENATE NATURAL RESOURCES  
EXHIBIT NO. 1  
DATE 3-27-91

A BILL FOR AN ACT ENTITLED: "AN ACT TO GENERALLY ~~REPEAL THE~~ HB 671  
MONTANA SUBDIVISION AND PLATTING ACT; REDEFINING SUBDIVISION;  
REMOVING CERTAIN EXEMPTIONS; PROVIDING AN EXPEDITED REVIEW  
PROCESS FOR MINOR SUBDIVISIONS AND SPECIAL SUBDIVISIONS;  
PROVIDING PUBLIC HEARING GUIDELINES AND AN OPTIONAL INFORMATIONAL  
HEARING PROCEDURE; ESTABLISHING PRIMARY CRITERIA FOR REVIEW OF  
ALL SUBDIVISIONS; PROVIDING CERTAIN ADDITIONAL REVIEW  
REQUIREMENTS FOR MAJOR SUBDIVISIONS; ~~PROVIDING FOR SUITS AGAINST~~  
~~A GOVERNING BODY;~~ AMENDING SECTIONS 7-16-2324, 76-3-102, 76-3-  
103, 76-3-104, 76-3-105, 76-3-301, 76-3-302, 76-3-304, 76-3-305,  
76-3-401, 76-3-402, ~~76-3-403,~~ 76-3-404, 76-3-405, 76-3-501, 76-3-  
507, 76-3-601, 76-3-603, 76-3-608, 76-3-610, 76-3-611, 76-3-613,  
76-3-614, 76-4-102, 76-4-103, 76-4-125, AND 76-6-203, MCA;  
REPEALING SECTIONS 76-3-201, 76-3-202, 76-3-203, 76-3-204, 76-3-  
205, 76-3-206, 76-3-207, 76-3-208, 76-3-209, 76-3-210, 76-3-504,  
76-3-505, 76-3-604, 76-3-605, 76-3-606, 76-3-607, AND 76-3-609,  
MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE AND APPLICABILITY  
DATES."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 76-3-102, MCA, is amended to read:

"76-3-102. Statement of purpose. It is the purpose of this  
chapter to ~~promote the public health, safety, and general welfare~~  
~~by regulating the subdivision of land; to prevent overcrowding of~~  
~~land; to lessen congestion in the streets and highways; to~~  
~~provide for adequate light, air, water supply, sewage disposal,~~  
~~parks and recreation areas, ingress and egress, and other public~~  
~~requirements; to require development in harmony with the natural~~  
~~environment; to require that whenever necessary, the appropriate~~  
~~approval of subdivisions be contingent upon a written finding of~~  
~~public interest by the governing body; and to~~ PROMOTE THE PUBLIC

1 HEALTH, SAFETY, AND GENERAL WELFARE BY REGULATING THE SUBDIVISION  
2 OF LAND; TO PREVENT OVERCROWDING OF LAND; TO LESSEN CONGESTION IN  
3 THE STREETS AND HIGHWAYS; TO PROVIDE FOR ADEQUATE LIGHT, AIR,  
4 WATER SUPPLY, SEWAGE DISPOSAL, PARKS AND RECREATION AREAS,  
5 INGRESS AND EGRESS, AND OTHER PUBLIC REQUIREMENTS ADOPTED  
6 PURSUANT TO THIS CHAPTER; TO REQUIRE DEVELOPMENT IN HARMONY WITH  
7 THE NATURAL ENVIRONMENT; to require that whenever necessary, the  
8 appropriate approval of subdivisions be contingent upon a written  
9 finding of public interest by the governing body; and TO require  
10 uniform monumentation of land subdivisions and transferring  
11 divisions; TO require that the transfer of interests in real  
12 property be made by reference to plat or certificate of survey;  
13 TO provide simple, clear, and uniform guidelines for review of  
14 subdivisions; AND TO promote REQUIRE environmentally sound  
15 subdivisions; and protect public health, safety, and welfare in a  
16 manner that also protects the rights of property owners. FOR THE  
17 PURPOSE OF THIS CHAPTER, RIGHTS OF PROPERTY OWNERS INCLUDE THE  
18 RIGHT TO USE, ENJOY, IMPROVE, SELL, AND CONVEY, IN TOTAL OR IN  
19 PART, REAL PROPERTY SO LONG AS THE EXERCISE OF THE RIGHTS DOES  
20 NOT DENY THESE RIGHTS TO OTHER PROPERTY OWNERS OR ADVERSELY  
21 AFFECT PUBLIC HEALTH, SAFETY, AND WELFARE."

22 Section 2. Section 76-3-103, MCA, is amended to read:

23 "76-3-103. Definitions. As used in this chapter, unless the  
24 context or subject matter clearly requires otherwise, the  
25 following words or phrases shall have the following meanings:

26 (1) "Certificate of survey" means a drawing of a field  
27 survey prepared by a registered professional land surveyor for  
28 the purpose of disclosing facts pertaining to boundary locations.

29 (2) "Dedication" means the deliberate appropriation of land  
30 by an owner for any general and public use, reserving to himself  
31 no rights which are incompatible with the full exercise and  
32 enjoyment of the public use to which the property has been  
33 devoted.

34 (3) "Division of land" means the ~~segregation~~ creation of  
35 ~~one or more~~ parcels of land from a larger tract held in single or



undivided ownership by transferring or contracting to transfer title to or possession of a portion of the tract or properly filing a certificate of survey or subdivision plat establishing the identity of the ~~segregated~~ created parcels pursuant to this chapter.

~~(4) "Dwelling unit" means a unit in which a person or persons reside for more than 8 months of a calendar year.~~

(4) "DWELLING UNIT" MEANS A DETACHED RESIDENTIAL STRUCTURE IN WHICH A PERSON OR PERSONS RESIDE.

~~(4)(5)(4)(5)~~ "Examining land surveyor" means a registered professional land surveyor duly appointed by the governing body to review surveys and plats submitted for filing.

~~(6)(5)(6)~~ "Executive proceedings" means public proceedings in which the governing body makes deliberations without receiving public comment except when, with the approval of the chairman, specific questions are directed to the subdivider or other individuals.

~~(5)(7)(6)(7)~~ "Governing body" means a board of county commissioners or the governing authority of any city or town organized pursuant to law.

~~(6)(8)~~ "Irregularly shaped tract of land" means a parcel of land other than an aliquot part of the United States government survey section or a United States government lot, the boundaries or areas of which cannot be determined without a survey or trigonometric calculation.

~~(7)~~ "Occasional sale" means one sale of a division of land within any 12-month period.

~~(9)(7)(8)~~ "Legal access" means access by easement or other right-of-way that provides the property owner THE RIGHT OF ingress and egress to or from any tract or parcel created by a subdivision.

~~(10)(8)(9)~~ "Major subdivision" means a subdivision that is not a minor subdivision or special subdivision.

~~(11)(9)(10)~~ "Minor subdivision" means: a subdivision of THE FIRST five or fewer parcels. A second or subsequent minor

~~subdivision from a single tract of record as of July 1, 1991, may not be considered a minor subdivision for review purposes unless the subdivider notifies the reviewing authority of the subdivider's intention to create subsequent parcels, up to the five parcel limit, at the time of the initial minor subdivision application.~~

(A) FOR SUBDIVISIONS INVOLVING THE ACTUAL DIVISION OF LAND, THE FIRST FIVE PARCELS FROM A SINGLE TRACT OF RECORD AS OF JULY 1, 1991; OR

(B) FOR SUBDIVISIONS INVOLVING THE PROVISION OF PERMANENT MULTIPLE SPACES WITH UTILITY HOOK-UPS FOR RECREATIONAL CAMPING VEHICLES, MOBILE HOMES, DWELLING UNITS, OR WORK CAMP STRUCTURES, AS DESCRIBED IN SUBSECTION (21) (A), THE FIRST FIVE OF THESE FROM A SINGLE TRACT OF RECORD AS OF JULY 1, 1991.

~~(12)(10)(11)~~ "Physical access" means access by a road that meets the standards set by the governing body according to 76-3-501.

~~(8)(13)(11)(12)~~ "Planned unit development" means a land development project consisting of residential clusters, industrial parks, shopping centers, office building parks, or any combination thereof which comprises a planned mixture of land uses built in a prearranged relationship to each other and having open space and community facilities in common ownership or use.

~~(9)(14)(12)(13)~~ "Plat" means a graphical representation of a subdivision showing the division of land into lots, parcels, blocks, streets, alleys, and other divisions and dedications.

~~(10)(15)(13)(14)~~ "Preliminary plat" means a neat and scaled drawing of a proposed subdivision showing the layout of streets, alleys, lots, blocks, and other elements of a subdivision which furnish a basis for review by a governing body.

~~(11)(16)(14)(15)~~ "Final plat" means the final drawing of the subdivision and dedication required by this chapter to be prepared for filing for record with the county clerk and recorder and containing all elements and requirements set forth in this

chapter and in regulations adopted pursuant thereto to this chapter.

~~(17) "Primitive tract" means a tract that is located more than 1 mile from a state, federal, or maintained county road and that is used for open space or for wildlife, hunting, or other activities with minimal human impacts. Activities with minimal human impacts include the construction of camping structures that are dismantled or relocated after seasonal use.~~

~~(12)(18)(15)(16)~~ "Registered professional land surveyor" means a person licensed in conformance with Title 37, chapter 67, to practice surveying in the state of Montana.

~~(13)(19)(16)(17)~~ "Registered professional engineer" means a person licensed in conformance with Title 37, chapter 67, to practice engineering in the state of Montana.

~~(20)(17)(18)~~ "Review authority" means the person or entity GOVERNING BODY with authority to approve, conditionally approve, or disapprove a subdivision application.

~~(21)(18)(19)~~ "Special subdivision" means a subdivision that conforms to a master plan pursuant to ~~76-1-601~~, AND a long-range development program of public works projects ADOPTED pursuant to ~~76-1-601~~, and either local government regulations pursuant to ~~76-3-501~~ or zoning regulations ADOPTED pursuant to Title 76, chapter 2, part 2 or 3.

~~(14)(22)(19)(20)~~ "Subdivider" means any person who causes land to be subdivided or who proposes a subdivision of land.

~~(15)(23)(20)(21)~~ (a) "Subdivision" means, EXCEPT AS PROVIDED IN (21)(B), a division of land or land so divided which that it creates ~~one or more~~ ONE OR MORE ADDITIONAL parcels containing less than 20 acres, exclusive of public roadways, in order that the title to or possession of the parcels may be sold, rented, leased, or otherwise conveyed, and shall include The term ~~includes any resubdivision and shall further include any residential condominium or building and further includes any area, regardless of its size, which that provides or will provide multiple space three or more spaces for recreational camping~~

~~vehicles, or mobile homes dwelling units, or work camp structures  
constructed to exist for longer than 1 year. THE TERM INCLUDES:~~

~~(I) ANY RESUBDIVISION;~~

~~(II) ANY RESIDENTIAL CONDOMINIUM OR BUILDING;~~

~~(III) ANY AREA, REGARDLESS OF ITS SIZE, THAT PROVIDES OR  
WILL PROVIDE MULTIPLE SPACE FOR RECREATIONAL CAMPING VEHICLES OR  
DWELLING UNITS; AND~~

~~(IV) WORK CAMP STRUCTURES CONSTRUCTED TO EXIST FOR LONGER  
THAN 1 YEAR. IN ORDER THAT THE TITLE TO OR POSSESSION OF THE  
PARCELS MAY BE SOLD, RENTED, LEASED, OR OTHERWISE CONVEYED. THE  
TERM INCLUDES ANY RESUBDIVISION; ANY RESIDENTIAL CONDOMINIUM  
BUILDING; AND FURTHER INCLUDES ANY AREA, REGARDLESS OF ITS SIZE,  
THAT PROVIDES OR WILL PROVIDE PERMANENT MULTIPLE SPACES WITH  
UTILITY HOOK-UPS FOR RECREATIONAL CAMPING VEHICLES; MOBILE HOMES;  
DWELLING UNITS; OR WORK CAMP STRUCTURES CONSTRUCTED TO EXIST FOR  
LONGER THAN ONE YEAR. FOR PURPOSES OF THIS SUBSECTION, "WORK  
CAMP STRUCTURE" MEANS HOUSING PROVIDED BY A PERSON FOR TWO OR  
MORE FAMILIES OR INDIVIDUALS LIVING SEPARATELY, FOR THE EXCLUSIVE  
USE OF THE EMPLOYEES OF THAT PERSON AND THE FAMILIES, IF ANY, OF  
THE EMPLOYEES. "HOUSING" DOES NOT INCLUDE SHELTER PROVIDED BY AN  
AGRICULTURAL EMPLOYER FOR PERSONS WHO ARE PRIMARILY EMPLOYED TO  
PERFORM AGRICULTURAL DUTIES ON THAT PERSON'S RANCH OR FARM.~~

~~(b) Subdivision does not mean:~~

~~(i) a division creating cemetery lots only;~~

~~(ii) a division created by lease or rental for farming and  
agricultural purposes;~~

~~(iii) a division creating an interest in oil, gas, minerals,  
or water that is severed from the surface ownership of real  
property;~~

~~(iv) a division created by reservation of a life estate;~~

~~(v) the sale, rent, lease, or other conveyance OR USE of  
one or more parts of a building, structure, or other improvement,  
whether existing or proposed;~~

1       (vi) a division of state-owned land unless the division  
2 creates a second or subsequent parcel from a single tract for  
3 sale, rent, or lease for residential purposes;

4       (vii) a division created by OPERATION OF LAW OR AN order of  
5 a court of record in this state pursuant to the laws governing  
6 the distribution of estates (Title 72, chapters 1 through 6 and  
7 10 through 14) or the dissolution of marriage (Title 40, chapter  
8 4) or a division that, in the absence of an agreement between the  
9 parties to the sale, could be created by an order of a court in  
10 this state pursuant to the law of eminent domain (Title 70,  
11 chapter 30);

12       (viii) except for the survey requirements in 76-3-401  
13 through 76-3-405 and any applicable zoning requirements, a  
14 division made for the purpose of relocating boundary lines  
15 between adjoining properties, provided the division is recorded  
16 in both EITHER the INDEX OF certificate CERTIFICATES of survey  
17 and OR the index provided for in 76-3-613, AS APPLICABLE, and  
18 unless the governing body determines that the subdivision may be  
19 used to create subdivisions for resale AS LONG AS NO ADDITIONAL  
20 PARCELS ARE CREATED;

21       (ix) except for the survey requirements in 76-3-401 through  
22 76-3-405, a division made exclusively for agricultural OR  
23 SILVICULTURAL purposes by sale or agreement to buy and sell if  
24 the division is outside of a platted subdivision and if the local  
25 governing body and the subdivider enter into a covenant running  
26 with the land that the divided parcels must be used exclusively  
27 for agricultural purposes. The governing body shall agree to  
28 release the covenant upon petition by the subdivider if the  
29 subdivision proposal complies with the provisions of this  
30 chapter. DIVISIONS MADE FOR AGRICULTURAL OR SILVICULTURAL  
31 PURPOSES MUST BE NOTED ON THE CERTIFICATE OF SURVEY OR OTHER  
32 RECORDED INSTRUMENT OF CONVEYANCE.

33       (x) except for the survey requirements in 76-3-401 through  
34 76-3-405 and the review requirements of 76-3-610 through 76-3-

1 614, a division THAT DOES NOT CONSTITUTE A SUBDIVISION AS DEFINED  
2 BY THIS CHAPTER created by rent or lease;

3 (xi) except for requirements other than FOR the survey and  
4 platting requirements in 76-3-401 through 76-3-405, divisions  
5 created by rights-of-way; or

6 (xii)(A) except for requirements other than the survey and  
7 platting requirements in 76-3-401 through 76-3-405 and the review  
8 requirements of 76-4-101 through 76-4-131, a division created by  
9 an agricultural producer for sale or gift to a member of the  
10 agricultural producer's immediate family for the purpose of  
11 maintaining the agricultural operation and limited to a single  
12 sale or gift to each IMMEDIATE family member. ADDITIONAL SALES OR  
13 GIFTS TO EACH IMMEDIATE FAMILY MEMBER OF AN AGRICULTURAL PRODUCER  
14 MAY BE MADE FOR ADJOINING PROPERTIES UNDER THE PROVISIONS OF  
15 SUBSECTION (21)(B)(VIII) OF THIS SECTION, AS LONG AS NO  
16 ADDITIONAL PARCELS ARE CREATED; OR For the purposes of this  
17 section, agricultural producer means a person primarily engaged  
18 in the production of agricultural products.

19 (B) THE CREATION BY AN AGRICULTURAL PRODUCER OF ANY AREA,  
20 REGARDLESS OF ITS SIZE, THAT PROVIDES OR WILL PROVIDE PERMANENT  
21 MULTIPLE SPACES FOR LESS THAN 4 DWELLING UNITS.

22 (C) FOR PURPOSES OF THIS SECTION, AGRICULTURAL PRODUCER  
23 MEANS A PERSON PRIMARILY ENGAGED IN THE PRODUCTION OF  
24 AGRICULTURAL PRODUCTS.

25 (XIII) A DIVISION OF LAND MADE FOR THE PURPOSE OF MINING  
26 WHEN AN APPLICATION HAS BEEN SUBMITTED OR A PERMIT OR CONTRACT  
27 RECEIVED UNDER THE PROVISIONS OF TITLE 82, CHAPTER 4.

28 (XIV) A DIVISION CREATED TO PROVIDE SECURITY FOR MORTGAGES,  
29 LIENS, OR TRUST INDENTURES, UNTIL SUCH TIME AS THE DIVISION IS NO  
30 LONGER PROVIDING THAT SECURITY.

31 (24)(21)(22) "Subdivision review officer" means the person  
32 designated by the governing body to administer subdivision review  
33 or to approve, conditionally approve, or disapprove applications  
34 for minor subdivisions or special subdivisions AND TO ADVISE THE  
35 REVIEW AUTHORITY ON SUBDIVISIONS.

1 ~~(25)(22)(23)~~ "Tract of record" means a tract of record as  
2 appears in the records of the county clerk and recorder's office.

3 ~~(23)(24)~~ "WATER USER ENTITY" MEANS AN ENTITY AS DESCRIBED IN  
4 7-12-1151 AND IRRIGATION DISTRICTS AS PROVIDED IN 85-7-101."

5 Section 3. Section 76-3-104, MCA, is amended to read:

6 "76-3-104. What constitutes subdivision. A subdivision  
7 ~~shall comprise~~ comprises only those parcels ~~less than 20 acres~~  
8 ~~which that~~ have been segregated created from the original tract,  
9 and the plat ~~thereof shall~~ of the subdivision must show all such  
10 the parcels, whether contiguous or not."

11 Section 4. Section 76-3-105, MCA, is amended to read:

12 "76-3-105. Violations -- actions against subdivider. (1)  
13 ~~Any A~~ A person who violates any provision of this chapter or any  
14 local regulations adopted pursuant ~~thereto shall be to this~~  
15 chapter is guilty of subject to a civil penalty not to exceed  
16 \$5,000 ~~misdemeanor and punishable by a fine of not less than \$100~~  
17 ~~or more than \$500 or by imprisonment in a county jail for not~~  
18 ~~more than 3 months or by both fine and imprisonment.~~ Each sale,  
19 lease, or transfer of each separate parcel of land in violation  
20 of any provision of this chapter or any local regulation adopted  
21 pursuant ~~thereto shall be deemed~~ to this chapter is considered a  
22 separate and distinct offense.

23 (2) The governing body may file an action in district court  
24 to enjoin the violation of any provision of this chapter or of  
25 any regulation adopted pursuant to 76-3-501."

26 ~~NEW SECTION. Section 5. Violations -- actions against~~  
27 ~~governing body. A person who has filed with the governing body an~~  
28 ~~application for a permit under this chapter may bring an action~~  
29 ~~against the governing body to recover actual damages caused by:~~

30 ~~(1) a final action, decision, or order of the governing~~  
31 ~~body that imposes requirements, limitations, or conditions upon~~  
32 ~~the use of the property in excess of those authorized by this~~  
33 ~~chapter; or~~

34 ~~(2) a regulation adopted pursuant to this chapter that is:~~

35 ~~(a) arbitrary or capricious; or~~

1 ~~(b) unlawful or exceeds lawful authority.~~

2 **NEW SECTION.** Section 5. Certificate of taxes paid. A  
3 division of land may not be made unless the county treasurer has  
4 certified that real property taxes assessed and levied on the  
5 land to be divided are not delinquent.

6 Section 6. Section 76-3-301, MCA, is amended to read:

7 **"76-3-301. General restriction on transfer of title to**  
8 **subdivided lands.** (1) Except as provided in 76-3-303, every final  
9 subdivision plat must be filed for record with the county clerk  
10 and recorder before title to the subdivided land can be sold or  
11 transferred in any manner. The clerk and recorder of the county  
12 shall refuse to accept any plat for record that fails to have the  
13 approval of 76-3-611(1) in proper form.

14 (2) The clerk and recorder shall notify the governing body  
15 or its designated agent of any land division ~~described in 76-3-~~  
16 ~~207(1)~~ exempted from review but subject to survey requirements.

17 (3) If transfers not in accordance with this chapter are  
18 made, the county attorney shall commence action to enjoin further  
19 sales or transfers and compel compliance with all provisions of  
20 this chapter. The cost of ~~such the~~ action shall must be imposed  
21 against the party not prevailing."

22 Section 7. Section 76-3-302, MCA, is amended to read:

23 **"76-3-302. Restrictions on recording instruments relating**  
24 **to land subject to surveying requirements.** (1) Except as provided  
25 in subsection (2), the county clerk and recorder of any county  
26 may not record any instrument ~~which~~ that purports to transfer  
27 title to or possession of a parcel or tract of land ~~which~~ that is  
28 required to be surveyed by this chapter unless the required  
29 certificate of survey or subdivision plat has been filed with the  
30 clerk and recorder and the instrument of transfer describes the  
31 parcel or tract by reference to the filed certificate or plat.

32 (2) Subsection (1) does not apply when the parcel or tract  
33 to be transferred was created before July 1, 1973, and the  
34 instrument of transfer for the parcel or tract includes a  
35 reference to a previously recorded instrument of transfer or is



1 accompanied by documents ~~which, if recorded, would otherwise~~  
2 ~~satisfy the requirements of this subsection. The reference or~~  
3 ~~document must that~~ demonstrate that the parcel or tract existed  
4 before July 1, 1973.

5 (3) The reference or documents required in subsection (2)  
6 do not constitute a legal description of the property and may not  
7 be substituted for a legal description of the property."

8 Section 8. Section 76-3-304, MCA, is amended to read:

9 "76-3-304. Effect of ~~receding~~ filing complying plat. The  
10 ~~receding filing~~ of any plat made in compliance with the  
11 provisions of this chapter ~~shall serve~~ serves to establish the  
12 identity of all lands shown on ~~and being a part of such the~~ plat.  
13 ~~Where~~ When lands are conveyed by reference to a plat, the plat  
14 itself or any copy of the plat properly certified by the county  
15 clerk and recorder as being a true copy ~~thereof shall of the plat~~  
16 must be regarded as incorporated into the instrument of  
17 conveyance and ~~shall must~~ be received in evidence in all courts  
18 of this state."

19 Section 9. Section 76-3-305, MCA, is amended to read:

20 "76-3-305. Vacation of plats -- utility easements. (1) Any  
21 plat prepared and recorded as ~~herein provided in this part~~ may be  
22 vacated either in whole or in part as provided by 7-5-2501, 7-5-  
23 2502, subsections (1) and (2) of 7-14-2616, 7-14-2617,  
24 subsections (1) and (2) of 7-14-4114, and 7-14-4115, and upon  
25 such vacation the title to the streets and alleys of ~~such the~~  
26 vacated portions to the center ~~thereof shall revert of the street~~  
27 or alley reverts to the owners of the properties within the  
28 platted area adjacent to ~~such the~~ vacated portions.

29 (2) ~~However, when any~~ If a poleline, pipeline, or any other  
30 public or private facility is located in a vacated street or  
31 alley at the time of the reversion of the title ~~thereto of the~~  
32 street or alley, the owner of ~~said the~~ public or private utility  
33 facility ~~shall have~~ has an easement over the vacated land to  
34 continue the operation and maintenance of the public or private  
35 utility facility."

1           Section 10. Section 76-3-401, MCA, is amended to read:

2           "76-3-401. Survey requirements for divisions of lands ~~other~~  
3 ~~than subdivisions~~. All divisions of land ~~for sale other than a~~  
4 ~~subdivision after July 1, 1974~~, into parcels which parts that  
5 cannot be described as ~~1/32 1/16 1/32~~ or larger aliquot parts of  
6 a United States government section or AS a United States  
7 government lot must be surveyed by or under the supervision of a  
8 registered professional land surveyor."

9           Section 11. Section 76-3-402, MCA, is amended to read:

10          "76-3-402. Survey and platting requirements for subdivided  
11 lands. (1) Every subdivision of land after June 30, 1973, ~~shall~~  
12 must be surveyed and platted in conformance with this chapter by  
13 or under the supervision of a registered professional land  
14 surveyor.

15          (2) Subdivision plats ~~shall~~ must be prepared and filed in  
16 accordance with this chapter and regulations adopted pursuant  
17 thereto to this chapter.

18          (3) All division of sections into aliquot parts and  
19 retracement of lines must conform to United States bureau of land  
20 management instructions, and all public land survey corners ~~shall~~  
21 must be filed in accordance with the Corner Recordation Act of  
22 Montana (Title 70, chapter 22, part 1). Engineering plans,  
23 specifications, and reports required in connection with public  
24 improvements and other elements of the subdivision required by  
25 the governing body ~~shall~~ must be prepared and filed by a  
26 registered professional engineer or a registered professional  
27 land surveyor as their respective licensing laws allow in  
28 accordance with this chapter and regulations adopted pursuant  
29 thereto to this chapter."

30          ~~Section 13. Section 76-3-403, MCA, is amended to read:~~

31          ~~"76-3-403. Monumentation. (1) The department of commerce~~  
32 ~~shall, in conformance with the Montana Administrative Procedure~~  
33 ~~Act, prescribe uniform standards for monumentation and for the~~  
34 ~~form, accuracy, and descriptive content of records of survey.~~

1       ~~(2) It shall be the responsibility of the governing body to~~  
2 ~~require the replacement of all monuments removed in the course of~~  
3 ~~construction."~~

4       Section 12. Section 76-3-404, MCA, is amended to read:

5       **"76-3-404. Certificate of survey.** (1) Within 180 days of  
6 the completion of a survey, the registered professional land  
7 surveyor responsible for the survey, whether he is privately or  
8 publicly employed, shall prepare ~~and submit~~ for filing a  
9 certificate of survey in the county in which the survey was made  
10 if the survey:

11       (a) provides material evidence not appearing on any map  
12 filed with the county clerk and recorder or contained in the  
13 records of the United States bureau of land management;

14       (b) reveals a material discrepancy in ~~such a~~ map;

15       (c) discloses evidence to suggest alternate locations of  
16 lines or points; or

17       (d) establishes one or more lines not shown on a recorded  
18 map, the positions of which are not ascertainable from an  
19 inspection of ~~such the~~ map without trigonometric calculations.

20       (2) A certificate of survey ~~will~~ is not be required for any  
21 survey ~~which that~~ is made by the United States bureau of land  
22 management, ~~or which that~~ is preliminary, or ~~which that~~ will  
23 become part of a subdivision plat being prepared for recording  
24 under the provisions of this chapter.

25       (3) Certificates of survey ~~shall~~ must be legibly drawn,  
26 printed, or reproduced by a process guaranteeing a permanent  
27 record and ~~shall~~ must conform to monumentation and surveying  
28 requirements promulgated under this chapter."

29       Section 13. Section 76-3-405, MCA, is amended to read:

30       **"76-3-405. Administration of oaths by registered land**  
31 **surveyor.** (1) ~~Every~~ A registered professional land surveyor may  
32 administer and certify oaths when:

33       (a) it becomes necessary to take testimony for the  
34 identification of old corners or reestablishment of lost or  
35 obliterated corners;

1 (b) a corner or monument is found in a deteriorating  
2 condition and it is desirable that evidence concerning it be  
3 perpetuated; or

4 (c) the importance of the survey makes it desirable to  
5 administer an oath to his assistants for the faithful performance  
6 of their duty.

7 (2) A record of oaths ~~shall~~ must be preserved as part of  
8 the field notes of the survey and noted on the ~~certificate of~~  
9 ~~survey filed under 76-3-404~~ corner record filed under 70-22-104."

10 Section 14. Section 76-3-501, MCA, is amended to read:

11 "76-3-501. Local subdivision regulations. (1) ~~Before July~~  
12 ~~1, 1974, the~~ The governing body of every county, city, and town  
13 shall, IN A MANNER THAT PROTECTS THE RIGHTS OF PROPERTY OWNERS,  
14 adopt and provide for the enforcement and administration of  
15 subdivision regulations reasonably ~~providing for the orderly~~  
16 ~~development of their jurisdictional areas; for the coordination~~  
17 ~~of roads within subdivided land with other roads, both existing~~  
18 ~~and planned; for the dedication of land for roadways and for~~  
19 ~~public utility easements; for the improvement of roads; for the~~  
20 ~~provision of adequate open spaces for travel, light, air, and~~  
21 ~~recreation; for the provision of adequate transportation, water,~~  
22 ~~drainage, and sanitary facilities; for the avoidance or~~  
23 ~~minimization of congestion; and for the avoidance of subdivision~~  
24 ~~which would involve unnecessary environmental degradation and the~~  
25 ~~avoidance of danger of injury to health, safety, or welfare by~~  
26 ~~reason of natural hazard or the lack of water, drainage, access,~~  
27 ~~transportation, or other public services or would necessitate an~~  
28 ~~excessive expenditure of public funds for the supply of such~~  
29 ~~services. implementing the provisions of this chapter that are~~  
30 ~~consistent with the statement of purpose described in 76-3-102~~  
31 ~~and that do not unreasonably restrict a landowner's ability to~~  
32 ~~develop land.~~ PROVIDING FOR THE ORDERLY DEVELOPMENT OF THEIR  
33 JURISDICTIONAL AREAS; FOR THE COORDINATION OF ROADS WITHIN  
34 SUBDIVIDED LAND WITH OTHER ROADS, BOTH EXISTING AND PLANNED; FOR  
35 THE DEDICATION OF LAND FOR ROADWAYS AND FOR PUBLIC UTILITY

1 EASEMENTS; FOR THE IMPROVEMENT OF ROADS; FOR THE PROVISION OF  
2 ADEQUATE OPEN SPACES FOR TRAVEL, LIGHT, AIR, AND RECREATION; FOR  
3 THE PROVISION OF ADEQUATE TRANSPORTATION, WATER, DRAINAGE, AND  
4 SANITARY FACILITIES; FOR THE AVOIDANCE OR MINIMIZATION OF  
5 CONGESTION OF STREETS AND HIGHWAYS; AND FOR THE AVOIDANCE OF  
6 SUBDIVISION THAT WOULD INVOLVE UNNECESSARY UNREASONABLE  
7 ENVIRONMENTAL DEGRADATION AND THE AVOIDANCE OF DANGER OF INJURY  
8 TO HEALTH, SAFETY, OR WELFARE BY REASON OF NATURAL HAZARD OR THE  
9 LACK OF WATER, DRAINAGE, ACCESS, TRANSPORTATION, OR OTHER PUBLIC  
10 SERVICES OR WOULD NECESSITATE AN EXCESSIVE UNREASONABLE  
11 EXPENDITURE OF PUBLIC FUNDS FOR THE SUPPLY OF THESE SERVICES. FOR  
12 THE PURPOSE OF THIS CHAPTER, RIGHTS OF PROPERTY OWNERS INCLUDE  
13 THE RIGHT TO USE, ENJOY, IMPROVE, SELL, AND CONVEY, IN TOTAL OR  
14 IN PART, REAL PROPERTY SO LONG AS THE EXERCISE OF THE RIGHTS DOES  
15 NOT DENY THESE RIGHTS TO OTHER PROPERTY OWNERS OR ADVERSELY  
16 AFFECT PUBLIC HEALTH, SAFETY, AND WELFARE. The regulations must  
17 include:

18 (a) procedures for expedited review of minor subdivisions  
19 and special subdivisions;

20 (b) procedures, BASED ON THE MINIMUM REQUIREMENTS AS  
21 PROVIDED IN 7-1-4127, for providing public notice of subdivision  
22 applications and hearings;

23 (c) procedures for obtaining public agency and public  
24 utility review. This review may not delay the review authority's  
25 action on the proposal beyond the time limits specified in  
26 [sections ~~20 and 21~~ 18 AND 19]. The failure of an agency to  
27 complete a review of a plat may not be a basis for rejection of  
28 the plat by a governing body.

29 (d) procedures and standards concerning the application of  
30 review criteria to subdivision applications, as provided for in  
31 76-3-608 and [section ~~26~~ 24];

32 (e) standards for the design and arrangement of lots,  
33 streets, and roads; grading and drainage; and for the location  
34 and installation of utilities. Standards for the design of  
35 streets and roads may not exceed the requirements for anticipated

1 vehicle use. VARIANCES FROM ROAD STANDARDS MAY BE GRANTED FOR  
2 SUBDIVISIONS REQUIRING MINIMAL VEHICLE USE.

3 ~~(f) financial incentives for developments that accommodate~~  
4 ~~public values~~ FINANCIAL OR OTHER POSITIVE INCENTIVES FOR  
5 DEVELOPMENTS THAT ACCOMMODATE PUBLIC VALUES;

6 (g) IF A PROPOSED MAJOR, MINOR, OR SPECIAL SUBDIVISION LIES  
7 PARTLY OR TOTALLY WITHIN THE BOUNDARIES OF A WATER USER ENTITY,  
8 THAT THE PROPOSED PLAT OF THE SUBDIVISION BE SUBMITTED FOR REVIEW  
9 TO THE WATER USER ENTITY TO ENSURE THAT THE EXISTENCE AND  
10 LOCATION OF ALL WATER USER FACILITIES ARE PROPERLY NOTED ON THE  
11 PLAT. WATER USER FACILITIES INCLUDE BUT ARE NOT LIMITED TO  
12 CANALS, LATERALS, OPEN DRAINS, AND CLOSED DRAINS.

13 (2) Review and approval or disapproval of a subdivision  
14 under this chapter may occur only under those regulations in  
15 effect at the time an application for approval of a preliminary  
16 plat or for an extension under 76-3-610 is submitted to the  
17 governing body."

18 Section 15. Section 76-3-507, MCA, is amended to read:

19 "76-3-507. Provision for bonding requirements to insure  
20 ensure construction of public improvements. (1) Except as  
21 provided in subsection (2), the governing body shall require the  
22 subdivider to complete any required public improvements within  
23 the subdivision prior to the approval of the final plat.

24 ~~(2) Local regulations may provide that, in (a) In lieu of~~  
25 ~~the completion of the construction of any public improvements~~  
26 ~~prior to the approval of a final plat, the governing body~~  
27 ~~subdivider shall require provide a bond or other reasonable~~  
28 ~~security, in an amount and with surety and conditions~~  
29 ~~satisfactory to it the governing body, providing for and securing~~  
30 ~~the construction and installation of such the improvements within~~  
31 ~~a period specified by the governing body and expressed in the~~  
32 ~~bonds or other security. The governing body shall reduce bond~~  
33 ~~requirements commensurate with the completion of improvements.~~

34 (b) In lieu of requiring a bond or other means of security  
35 for the construction or installation of all the required public

1 improvements under subsection (2)(a), the governing body may  
2 approve an incremental payment or guarantee plan. The  
3 improvements in a prior increment must be completed, or the  
4 payment or guarantee of payment for the costs of the improvements  
5 incurred in a prior increment must be satisfied, before  
6 development of future increments.

7 (3) Governing body approval of a final plat prior to the  
8 completion of required improvements and without the provision of  
9 the security required under subsection (2) is not an act of a  
10 legislative body for the purpose of 2-9-111."

11 Section 16. Section 76-3-601, MCA, is amended to read:

12 "76-3-601. Submission of preliminary plat for review. (1)  
13 ~~Except where a plat is eligible for summary approval, the~~  
14 ~~subdivider shall present to the governing body or the agent or~~  
15 ~~agency designated thereby the preliminary plat of the proposed~~  
16 ~~subdivision for local review. The preliminary plat shall show all~~  
17 ~~pertinent features of the proposed subdivision and all proposed~~  
18 ~~improvements. The subdivider shall present the preliminary plat~~  
19 of the proposed subdivision to the subdivision review officer for  
20 review. The subdivision review officer shall determine whether  
21 the proposed subdivision is a major subdivision, minor  
22 subdivision, or special subdivision according to the definitions  
23 in 76-3-103.

24 (2) (a) When the proposed subdivision lies within the  
25 boundaries of an incorporated city or town, the preliminary plat  
26 shall must be submitted to and approved by the city or town  
27 governing body review authority.

28 (b) When the proposed subdivision is situated entirely in  
29 an unincorporated area, the preliminary plat shall must be  
30 submitted to and approved by the ~~governing body of the~~  
31 appropriate county review authority. However, if the proposed  
32 subdivision lies within 1 mile of a third-class city or town or  
33 within 2 miles of a second-class city or within 3 miles of a  
34 first-class city, the county ~~governing body review authority~~

1 shall submit the preliminary plat to the city or town governing  
2 body or its designated agent for review and comment.

3 (c) ~~If~~ When the proposed subdivision lies partly within an  
4 incorporated city or town, the proposed plat ~~thereof~~ must be  
5 submitted to and approved by both the city or town and the county  
6 ~~governing bodies review authorities.~~

7 (d) When a proposed subdivision is also proposed to be  
8 annexed to a municipality, the governing body of the municipality  
9 shall coordinate the subdivision review and annexation procedures  
10 to minimize duplication of hearings, reports, and other  
11 requirements whenever possible.

12 (3) This section ~~and 76-3-604, 76-3-605, and 76-3-608~~  
13 ~~through 76-3-610~~ do not limit the authority of certain  
14 municipalities to regulate subdivisions beyond their corporate  
15 limits pursuant to 7-3-4444."

16 Section 17. Section 76-3-603, MCA, is amended to read:

17 "76-3-603. Contents of environmental assessment. Where  
18 ~~required, the~~ An environmental assessment ~~shall~~ must accompany  
19 the preliminary plat for any major subdivision and ~~shall~~ must  
20 include:

21 (1) a description of every body or stream of surface water  
22 as that may be affected by the proposed subdivision, together  
23 with available ground water information, and a description of the  
24 topography, vegetation, and wildlife use within the area of the  
25 proposed subdivision; and

26 ~~(2) maps and tables showing soil types in the several parts~~  
27 ~~of the proposed subdivision and their suitability for any~~  
28 ~~proposed developments in those several parts;~~

29 ~~(3) a community impact report containing a statement of~~  
30 ~~anticipated needs of the proposed subdivision for local services,~~  
31 ~~including education and busing, roads and maintenance, water,~~  
32 ~~sewage, and solid waste facilities, and fire and police~~  
33 ~~protection;~~

34 ~~(4) such additional relevant and reasonable information as~~  
35 ~~may be required by the governing body.~~



1        (2) a summary of the probable impacts of the proposed  
2 subdivision based on the criteria described in 76-3-608 and  
3 [section 26 24]; AND

4        (3) ADDITIONAL RELEVANT AND REASONABLE INFORMATION RELATED  
5 TO THE APPLICABLE REGULATORY CRITERIA AS MAY BE REQUIRED BY THE  
6 GOVERNING BODY."

7        NEW SECTION. Section 18. Review process for major  
8 subdivisions. (1) A subdivider proposing a major subdivision  
9 shall confer first with the subdivision review officer or his  
10 designated agent in a preliminary conference to discuss the  
11 application for the major subdivision, the requirements provided  
12 in this chapter, and local government regulations provided in 76-  
13 3-501. The subdivider shall submit a sketch of the plat at the  
14 conference, and the subdivision review officer shall refer the  
15 subdivider to the requirements of Title 76, chapter 4. Notice of  
16 the subdivision application must comply with the local government  
17 regulations adopted under 76-3-501.

18        ~~(2) The governing body, or the planning board if designated~~  
19 ~~as the review authority by the governing body,~~ shall approve,  
20 conditionally approve, or disapprove an application for a major  
21 subdivision within 60 days following the submission of a complete  
22 application. However, the subdivider and the ~~governing body or~~  
23 review authority may agree to extend the time period.

24        (3) An application for a major subdivision may not receive  
25 more than ~~two~~ ONE informational ~~hearings~~ HEARING. The hearing ~~or~~  
26 ~~hearings~~ must be conducted by the governing body unless it  
27 delegates the responsibility to the planning board or to a  
28 hearing officer under subsection (5) or conducts a joint hearing  
29 with the planning board. When a hearing is held by the planning  
30 board or a hearing officer, the board or officer shall make  
31 findings and recommendations for submission to the governing body  
32 concerning approval, conditional approval, or disapproval of the  
33 plat not later than 10 days after the informational hearing.

34        (4) Within 21 days following submission to the governing  
35 body of the complete application by the subdivider, an

1 informational hearing on the subdivision application may be  
2 requested by:

- 3 (a) the subdivider;
- 4 (b) a citizen who would be SUBSTANTIALLY adversely affected  
5 by the subdivision; or
- 6 (c) the review authority.

7 (5) The governing body shall designate the hearing officer.  
8 The first informational hearing, if held, must be at the local  
9 government's expense. ~~If a second hearing is held pursuant to the~~  
10 ~~subdivider's or an affected citizen's petition, the governing~~  
11 ~~body may assess costs of the second hearing to the petitioner.~~  
12 ~~The hearing officer shall make findings and recommendations to~~  
13 ~~the governing body concerning the approval, conditional approval,~~  
14 ~~or disapproval of the plat not later than 10 20 days after the~~  
15 ~~informational hearing and within the time period determined under~~  
16 ~~subsection (2).~~

17 (6) In informational hearings under this section,  
18 irrelevant, immaterial, or unduly repetitious evidence must be  
19 excluded but all other evidence of a type commonly relied upon by  
20 reasonably prudent persons in the conduct of their affairs is  
21 admissible, whether or not the evidence would be admissible in a  
22 trial in the courts of Montana. Any part of the evidence may be  
23 received in written form, ~~and all testimony of parties and~~  
24 ~~witnesses must be made under oath. Hearsay evidence may be used~~  
25 ~~for the purpose of supplementing or explaining other evidence,~~  
26 ~~but it is not sufficient in itself to support a finding unless it~~  
27 ~~would be admissible over objection in civil actions.~~

28 (7) Not less than 15 days prior to the date of an  
29 informational hearing on an application for a major subdivision,  
30 notice of the INFORMATIONAL hearing ~~and of the type of hearing~~  
31 ~~must be given BY THE GOVERNING BODY~~ by publication in a newspaper  
32 of general circulation in the county in which the subdivision is  
33 located. The subdivider, each adjoining property owner of record,  
34 and each purchaser of record under contract for deed of property  
35 adjoining the land included in the plat must also be notified of

1 the hearing by certified mail not less than 15 days prior to the  
2 date of the hearing.

3 (8) The review authority shall make its decision TO  
4 APPROVE, DISAPPROVE, OR CONDITIONALLY APPROVE THE SUBDIVISION  
5 APPLICATION during executive proceedings after the informational  
6 hearing or ~~hearings~~ AFTER THE TIME FOR A HEARING HAS EXPIRED.

7 NEW SECTION. Section 19. Review process for minor  
8 subdivisions and special subdivisions. (1) A subdivider proposing  
9 a minor subdivision or special subdivision shall confer first  
10 with the subdivision review officer or his designated agent in a  
11 preliminary conference to discuss the application for the  
12 subdivision, under the requirements provided in this chapter, and  
13 local government regulations provided in 76-3-501. The subdivider  
14 shall submit a sketch of the plat at the conference, and the  
15 subdivision review officer shall refer the subdivider to the  
16 requirements of Title 76, chapter 4. Notice of the subdivision  
17 application must comply with the local government regulations  
18 adopted under 76-3-501.

19 (2) ~~The governing body, or the planning board or~~  
20 ~~subdivision review officer if either is designated the review~~  
21 ~~authority by the governing body,~~ shall approve, conditionally  
22 approve, or disapprove an application for a minor subdivision or  
23 special subdivision.

24 (3) A determination on the application must be made within  
25 35 days following submission of a complete application unless the  
26 review authority and the subdivider agree to extend the time  
27 period.-

28 ~~(4) A public hearing may be held on a minor or special~~  
29 ~~subdivision only if:-~~

30 ~~(a) the subdivision would be located in an area having~~  
31 ~~unique cultural, historical, or natural resources that are~~  
32 ~~susceptible to substantial adverse effects from subdivision~~  
33 ~~development or if the subdivision would cause substantial adverse~~  
34 ~~fiscal costs to local government; and-~~

1       ~~(b) the subdivider or a citizen who demonstrates that he~~  
2       ~~would be adversely affected by the proposed subdivision petitions~~  
3       ~~the governing body for a hearing within 15 days following~~  
4       ~~submission of the complete application.~~

5       (4) WITHIN 15 DAYS FOLLOWING SUBMISSION TO THE GOVERNING  
6       BODY OF A COMPLETE APPLICATION BY THE SUBDIVIDER, A PUBLIC  
7       HEARING ON THE SUBDIVISION MAY BE REQUESTED BY THE SUBDIVIDER OR  
8       BY A CITIZEN WHO DEMONSTRATES THAT HE WOULD BE SUBSTANTIALLY  
9       ADVERSELY AFFECTED BY THE SUBDIVISION. AN INFORMATIONAL HEARING  
10      MAY BE HELD ON A MINOR OR SPECIAL SUBDIVISION ONLY IF:

11      (A) THE SUBDIVISION WOULD BE LOCATED IN AN AREA HAVING  
12      UNIQUE CULTURAL OR HISTORICAL RESOURCES, OR ENVIRONMENTAL OR  
13      ECOLOGICAL RESOURCES THAT ARE SUSCEPTIBLE TO SUBSTANTIAL ADVERSE  
14      EFFECTS FROM SUBDIVISION DEVELOPMENT; OR IF THE SUBDIVISION WOULD  
15      CAUSE SUBSTANTIAL ADVERSE FISCAL COSTS TO LOCAL GOVERNMENT; AND

16      (B) THE SUBDIVIDER OR A CITIZEN WHO DEMONSTRATES THAT HE  
17      WOULD BE ADVERSELY AFFECTED BY THE PROPOSED SUBDIVISION REQUESTS  
18      A HEARING FROM THE GOVERNING BODY WITHIN 15 DAYS FOLLOWING  
19      SUBMISSION OF A COMPLETE APPLICATION.

20      (5) If requested by the subdivider, OR an affected citizen  
21      who petitions REQUESTS A HEARING under subsection (4), ~~or the~~  
22      ~~review authority,~~ the hearing must be conducted as an  
23      informational hearing as provided for in [section 20 18]. The  
24      governing body shall designate the hearing officer, and, ~~if the~~  
25      ~~hearing is held pursuant to the subdivider's or an affected~~  
26      ~~citizen's request, the governing body may assess costs of the~~  
27      ~~hearing to the requester. The~~ THE hearing officer shall submit  
28      findings and recommendations to the review authority concerning  
29      the approval, conditional approval, or disapproval of the plat  
30      not later than 10 days after the ~~public~~ hearing and within the  
31      time period determined under subsection (3).

32      (6) An application for a minor subdivision or special  
33      subdivision may not receive more than one ~~public~~ hearing. The  
34      ~~public~~ hearing must be conducted by the governing body unless it

1 delegates that responsibility to the subdivision review officer,  
2 the planning board, or a hearing officer under subsection (5).

3 (7) Not less than 10 days prior to the date of a hearing on  
4 an application for a minor subdivision or special subdivision,  
5 notice of the hearing and of the type of hearing must be given BY  
6 THE GOVERNING BODY by publication in a newspaper of general  
7 circulation in the county in which the subdivision is located.  
8 The subdivider, each adjoining property owner of record, and each  
9 purchaser of record under contract for deed of property adjoining  
10 the land included in the plat must be notified of the hearing BY  
11 THE GOVERNING BODY by certified mail not less than 10 days prior  
12 to the date of the hearing.

13 (8) Regardless of whether ~~or not~~ a public hearing is held,  
14 if the ~~review authority~~ SUBDIVISION REVIEW OFFICER determines  
15 that substantial adverse impacts on ~~the factors listed in~~  
16 ~~subsection (4) are probable~~ CULTURAL OR HISTORICAL RESOURCES OR  
17 ENVIRONMENTAL OR ECOLOGICAL RESOURCES, INCLUDING WILDLIFE AND  
18 WILDLIFE HABITAT, ARE PROBABLE OR THAT THE SUBDIVISION WOULD  
19 CAUSE SUBSTANTIAL ADVERSE FISCAL COSTS TO THE LOCAL  
20 GOVERNMENT, THE FACTORS LISTED IN SUBSECTION (4) ARE PROBABLE, the  
21 ~~review authority~~ SUBDIVISION REVIEW OFFICER shall schedule a  
22 consultation with the subdivider, knowledgeable persons, and  
23 agency representatives. During the consultation process, the  
24 parties shall work to develop mitigation for the potential  
25 adverse effects on the factors listed in THIS subsection ~~(4)~~ (4).

26 (9) The ~~review authority~~ SUBDIVISION REVIEW OFFICER shall  
27 report the results of the meeting to the ~~governing body~~ REVIEW  
28 AUTHORITY and may make a recommendation.

29 (10) The ~~governing body~~ REVIEW AUTHORITY may require the  
30 subdivider to design the subdivision to minimize any potentially  
31 significant adverse impacts. IT IS RECOGNIZED THAT IN SOME  
32 INSTANCES THE IMPACTS OF A PROPOSED DEVELOPMENT MAY BE  
33 UNACCEPTABLE AND WILL PRECLUDE APPROVAL OF THE PLAT.

1           (11) The governing body REVIEW AUTHORITY shall issue written  
2 findings, based on substantial credible evidence, to justify any  
3 action taken under subsection (10).

4           ~~(12) In reviewing a subdivision under subsection (4), a~~  
5 ~~governing body must be guided by the following standards:~~

6           ~~(a) Mitigation measures imposed should not unreasonably~~  
7 ~~restrict a landowner's ability to develop land, but it is~~  
8 ~~recognized that in some instances the unmitigated impacts of a~~  
9 ~~proposed development may be unacceptable and will preclude~~  
10 ~~approval of the plat.~~

11           ~~(b)~~ IN REVIEWING A SUBDIVISION UNDER SUBSECTION (4), A  
12 REVIEW AUTHORITY MUST BE GUIDED BY THE FOLLOWING STANDARDS:

13           (A) MITIGATION MEASURES IMPOSED SHOULD NOT UNREASONABLY  
14 RESTRICT A LANDOWNER'S ABILITY TO DEVELOP LAND, BUT IT IS  
15 RECOGNIZED THAT IN SOME INSTANCES THE UNMITIGATED IMPACTS OF A  
16 PROPOSED DEVELOPMENT MAY BE UNACCEPTABLE AND WILL PRECLUDE  
17 APPROVAL OF THE PLAT.

18           (B) Whenever feasible, mitigation should be designed to  
19 provide some benefits for the subdivider, ~~including allowanees~~  
20 ~~for higher density development in less environmentally sensitive~~  
21 ~~sites within the plat and structuring mitigation to provide~~  
22 ~~eligibility for tax benefits if land or development rights are~~  
23 ~~donated to eligible receivers.~~

24           (13) The review authority shall approve, conditionally  
25 approve, or disapprove the application after the hearing has  
26 occurred or the opportunity for hearing has expired. ~~If the~~  
27 ~~review authority is the governing body or planning board, the~~ THE  
28 decision must be made during executive proceedings. ~~If the~~  
29 ~~subdivision review officer is designated the review authority,~~  
30 ~~the review officer shall proceed according to the following~~  
31 ~~requirements:~~

32           ~~(a) The subdivision review officer shall notify the~~  
33 ~~governing body and the planning board, if one exists, of the~~  
34 ~~review officer's decision.~~

~~(b) If the application for the subdivision contains a request for a deviation from standards or for a variance or if the application was subject to a public hearing under subsections (4) through (7), the subdivision review officer shall make a preliminary decision on the application. This decision is subject to review and modification by the governing body, or the planning board if designated by the governing body, during executive proceedings. The subdivision review officer's decision may be modified by the governing body or planning board only if it finds by substantial credible evidence and documents that the decision is not consistent with the provisions of this chapter or with local government regulations adopted pursuant to 76-3-501.~~

NEW SECTION. Section 20. Review guidelines -- all subdivisions. (1) A proposed subdivision must comply with the applicable requirements stated in this chapter and local government regulations adopted pursuant to 76-3-501 and must conform to a master plan, if required, pursuant to 76-1-606.

(2) Written findings and the reasons for approving, disapproving, or conditionally approving the subdivision must accompany the review authority's action on a subdivision application.

(3) A proposed subdivision is preliminarily approved when the review authority approves the preliminary plat.

(4) Approval of the final plat represents final approval from the review authority. However, this approval is only for the subdivision description provided in the final plat. A person who proposes to implement a change from an approved FINAL plat must submit a plat amendment that is subject to the review requirements of this chapter.

NEW SECTION. Section 21. Park dedication requirement. (1) Except as provided in subsections (2), (3), and (7), a subdivider shall dedicate to the governing body a cash or land donation equal to:

(a) ~~7.5%~~ 10% of the fair market value of the land proposed to be subdivided into parcels of one-half acre or smaller;

1 (b) ~~5%~~ 7.5% of the fair market value of the land proposed  
2 to be subdivided into parcels larger than one-half acre and not  
3 larger than 1 acre;

4 (c) ~~2.5%~~ 5% of the fair market value of the land proposed  
5 to be subdivided into parcels larger than 1 acre and not larger  
6 than 3 acres; and

7 (d) ~~1.25%~~ 2.5% of the fair market value of the land  
8 proposed to be subdivided into parcels larger than 3 acres and  
9 not larger than 5 acres.

10 (2) ~~Based on the park needs of the area, in lieu of~~  
11 ~~subsection (1), the governing body may require the subdivider to~~  
12 ~~dedicate to the governing body a cash or land donation equal to:~~

13 ~~(a) 7.5% of the fair market value of the land proposed to~~  
14 ~~be subdivided if the development density is 13 or more dwelling~~  
15 ~~units per acre;~~

16 ~~(b) 5% of the fair market value of the land proposed to be~~  
17 ~~subdivided if the development density is 8 to 12.99 dwelling~~  
18 ~~units per acre;~~

19 ~~(c) 2.5% of the fair market value of the land proposed to~~  
20 ~~be subdivided if the development density is 5 to 7.99 dwelling~~  
21 ~~units per acre;~~

22 ~~(d) 1.25% of the fair market value of the land proposed to~~  
23 ~~be subdivided if the development density is 3 to 4.99 dwelling~~  
24 ~~units per acre. WHEN A SUBDIVISION IS LOCATED TOTALLY WITHIN AN~~  
25 ~~AREA FOR WHICH DENSITY REQUIREMENTS HAVE BEEN ADOPTED PURSUANT TO~~  
26 ~~A MASTER PLAN UNDER TITLE 76, CHAPTER 1, OR PURSUANT TO ZONING~~  
27 ~~REGULATIONS UNDER TITLE 76, CHAPTER 2, THE GOVERNING BODY MAY~~  
28 ~~ESTABLISH PARK DEDICATION REQUIREMENTS BASED ON THE COMMUNITY~~  
29 ~~NEED FOR PARKS AND THE DEVELOPMENT DENSITIES IDENTIFIED IN THE~~  
30 ~~PLANS OR REGULATIONS. PARK DEDICATION REQUIREMENTS ESTABLISHED~~  
31 ~~UNDER THIS SUBSECTION ARE IN LIEU OF THOSE PROVIDED IN SUBSECTION~~  
32 ~~(1) AND MAY NOT EXCEED 0.03 ACRES PER DWELLING UNIT.~~

33 (3) (A) A park dedication may not be required;

34 (I) for land proposed for subdivision into parcels larger  
35 than 5 acres;



1        (II) for subdivision into parcels that are all  
2 nonresidential;

3        (III) FOR SUBDIVISIONS WHERE NO PARCELS ARE CREATED, EXCEPT  
4 WHEN THAT SUBDIVISION PROVIDES PERMANENT MULTIPLE SPACES FOR  
5 MOBILE HOMES OR CONDOMINIUMS; or

6        (IV) where only one additional parcel is created.

7        (B) If a future subdivision of the land creates parcels  
8 smaller than 5 acres, park dedication is required according to  
9 the provisions of this section.

10        (4) For the purpose of this section, the fair market value  
11 is the value of the unsubdivided, unimproved land.—

12        ~~(5) The subdivider shall make the park dedication in land~~  
13 ~~or cash.~~

14        (5) THE GOVERNING BODY, IN CONSULTATION WITH THE SUBDIVIDER  
15 AND THE PLANNING BOARD OR PARK BOARD HAVING JURISDICTION, MAY  
16 DETERMINE SUITABLE LOCATIONS FOR PARKS AND PLAYGROUNDS AND,  
17 GIVING DUE WEIGHT AND CONSIDERATION TO THE EXPRESSED PREFERENCE  
18 OF THE SUBDIVIDER, MAY DETERMINE WHETHER THE PARK DEDICATION MUST  
19 BE A LAND DONATION, CASH DONATION, OR A COMBINATION OF BOTH.

20        (6) (a) Except as provided in subsection (6)(b), the  
21 governing body shall use the dedicated money or land for  
22 development or acquisition of parks to serve the subdivision.

23        (b) The governing body may use the dedicated money to  
24 acquire or develop regional parks or recreational areas or for  
25 the purchase of public open space or conservation easements only  
26 if:

27        (i) the park, recreational area, open space, or  
28 conservation easement is within a reasonably close proximity to  
29 the proposed subdivision; and

30        (ii) the governing body has formally adopted a park plan  
31 that establishes the needs and procedures for use of the money.

32        (7) The local governing body shall waive the park  
33 dedication requirement if:

34        (a) (i) the preliminary plat provides for a planned unit  
35 development or other development with land permanently set aside

1 for park and recreational uses sufficient to meet the needs of  
2 the persons who will ultimately reside in the development; and

3 (ii) the appraised value of the land set aside for park and  
4 recreational purposes equals or exceeds the value of the  
5 dedication required under subsection (1); or

6 (b) (i) the preliminary plat provides long-term protection  
7 of critical wildlife habitat; cultural, historical, or natural  
8 resources; agricultural interests; or aesthetic values; and

9 (ii) the appraised market value of the unimproved subdivided  
10 land, by virtue of providing long-term protection provided for in  
11 subsection (7)(b)(i), is reduced by an amount equal to or  
12 exceeding the value of the dedication required under subsection  
13 (1).

14 NEW SECTION. Section 22. Payment for extension of capital  
15 facilities. A local government may require a subdivider to pay or  
16 guarantee payment for part or all of the costs of extending  
17 CAPITAL FACILITIES RELATED TO PUBLIC HEALTH AND SAFETY, INCLUDING  
18 BUT NOT LIMITED TO public sewer lines, water supply lines, and  
19 storm drains to a subdivision. The costs must reasonably reflect  
20 the expected impacts of the subdivision.

21 Section 23. Section 76-3-608, MCA, is amended to read:

22 "76-3-608. Criteria for local government review. (1) The  
23 basis for the ~~governing body's or review authority's~~ decision to  
24 approve, conditionally approve, or disapprove a subdivision ~~shall~~  
25 ~~be~~ is whether the applicable preliminary plat, environmental  
26 assessment, ~~public~~ hearing, planning board recommendations, and  
27 ~~or any~~ additional information ~~demonstrate~~ demonstrates that  
28 development of the subdivision ~~would be in the public interest.~~  
29 ~~The governing body shall disapprove any subdivision which it~~  
30 ~~finds not to be in the public interest~~ meets the requirements of  
31 this chapter.

32 (2) ~~To determine whether the proposed subdivision would be~~  
33 ~~in the public interest, the~~ The governing body or review  
34 authority shall issue written findings of fact ~~which that~~ weigh  
35 the following criteria ~~for public interest~~ in [SECTION 18].

1 [SECTION 19], [section 26 24], and subsections (3) and (4) of  
2 this section, as applicable.

3 ~~(a) the basis of the need for the subdivision;~~

4 ~~(b) expressed public opinion;~~

5 ~~(c) effects on agriculture;~~

6 ~~(d) effects on local services;~~

7 ~~(e) effects on taxation;~~

8 ~~(f) effects on the natural environment;~~

9 ~~(g) effects on wildlife and wildlife habitat; and~~

10 ~~(h) effects on the public health and safety.~~

11 (3) A subdivision proposal must undergo review for the  
12 following primary criteria:

13 ~~(a) The subdivision must be mapped, and the subdivision~~  
14 ~~plat must be properly filed with the county clerk and recorder.~~

15 ~~(b)(A) The subdivision must comply with water supply, solid~~  
16 ~~waste disposal, sewage treatment, and water quality standards, as~~  
17 ~~provided for in Title 76, chapter 4, part 1.~~

18 ~~(c)(B) The subdivision must provide easements for the~~  
19 ~~location and installation of any planned utilities.~~

20 ~~(d)(C) The subdivision must ensure access to each~~  
21 ~~tract PARCEL within the subdivision, as follows:~~

22 ~~(i) for a primitive tract:~~

23 ~~(A) legal access must be provided; and~~

24 ~~(B)(II) notation of legal access must be made on the~~  
25 ~~applicable plat and any instrument of transfer concerning the~~  
26 ~~tract PARCEL; and~~

27 ~~(ii) for any other tract, (III) physical access must be~~  
28 ~~provided according to standards set by the governing body under~~  
29 ~~76-3-501.~~

30 ~~(e)(D) Lots within the subdivision may not have building~~  
31 ~~sites within a floodway as defined by Title 76, chapter 5.~~

32 ~~(f)(E) The subdivision must be evaluated under the~~  
33 ~~conditions provided in subsection (4) to determine if lots upon~~  
34 ~~which building sites are or can reasonably be expected to be~~

1 located within the subdivision are located in an area affected by  
2 the following hazards, INCLUDING BUT NOT LIMITED TO SUCH AS:

3 (i) unstable slopes, including areas where rockfalls,  
4 landslides, mudslides, or avalanches have occurred in the past 25  
5 years or can reasonably be expected to occur;

6 (ii) unsuitable soils, including areas where a high water  
7 table occurs within 5 feet of the surface of the lot at any time  
8 of year and areas affected by soil creep, shrink-swell potential,  
9 or sinkholes; and

10 (iii) drainage problems, including the potential for  
11 sheetflooding.

12 (4) Subdivisions evaluated for hazards under subsection  
13 (3)(f)(3)(E) must be reviewed under all of the following  
14 conditions:

15 (a) Local government regulations must provide specific  
16 standards for evaluation and mitigation.

17 (b) Existing and reasonably accessible data must be used  
18 for the evaluation unless otherwise agreed to by the subdivider  
19 and the review authority.

20 (c) Approved construction techniques may be recommended  
21 REQUIRED to mitigate or overcome hazards.

22 (d) If a hazard is found to exist, notice of the hazard  
23 must be placed on the final plat.

24 (e) If the review authority knows of the existence of  
25 natural or man-caused hazards other than those described in  
26 subsection (3)(f)(3)(E), the review authority shall notify the  
27 subdivider in writing of those known hazards and require notice  
28 of the hazards on the final plat.

29 (f) The result of the hazard evaluation is not dispositive  
30 of the degree of hazard existing and is not grounds to establish  
31 liability against the review authority."

32 NEW SECTION. Section 24. Additional review criteria for  
33 major subdivisions. (1) In addition to the requirements of 76-3-  
34 608 and [sections 20 and 22 18 AND 20], a major subdivision must  
35 be reviewed for effects on:

1 (a) agricultural or agricultural water-user practices;—

2 ~~(b) unique cultural and historical sites;—~~

3 ~~(c) the natural environment; and~~

4 (B) UNIQUE CULTURAL OR HISTORICAL RESOURCES;

5 (C) ENVIRONMENTAL OR ECOLOGICAL RESOURCES, INCLUDING  
6 WILDLIFE AND WILDLIFE HABITAT; AND

7 (d) local services.

8 (2) (a) In reviewing major subdivisions for the effects  
9 listed in subsection (1), the review authority shall use  
10 information from the environmental assessment required by 76-3-  
11 603 and may solicit other site-specific information from the  
12 subdivider, agencies, and other appropriate sources. Efforts by  
13 the review authority to gather additional information do not  
14 constitute grounds for extending the deadlines for the  
15 subdivision review process provided for in [section 20 18] unless  
16 an extension is agreed to by the subdivider.

17 (b) Based on the information gathered, the subdivision  
18 review officer shall determine whether the proposed subdivision  
19 is likely to have significant adverse impacts on the factors  
20 listed in subsection (1).

21 (c) If the subdivision review officer determines that  
22 significant adverse impacts are probable, the subdivision review  
23 officer shall schedule a consultation with the subdivider,  
24 knowledgeable persons, and agency representatives. During the  
25 consultation process, the parties shall work to develop  
26 mitigation for the potential adverse effects on the factors  
27 listed in subsection (1).

28 (d) The subdivision review officer shall report the results  
29 of the meeting to the governing body and may make a  
30 recommendation.

31 (e) The governing body may require the subdivider to design  
32 the subdivision to minimize any potentially significant adverse  
33 impacts. IT IS RECOGNIZED THAT IN SOME INSTANCES THE IMPACTS OF A  
34 PROPOSED DEVELOPMENT MAY BE UNACCEPTABLE AND WILL PRECLUDE  
35 APPROVAL OF THE PLAT.

1 (f) The governing body shall issue written findings, based  
2 on substantial credible evidence, to justify any action taken  
3 under subsection (2)(e).

4 ~~(g) In reviewing a subdivision under subsection (1), a~~  
5 ~~governing body must be guided by the following standards:~~

6 ~~(i) Mitigation measures imposed must not unreasonably~~  
7 ~~restrict a landowner's ability to develop land, but it is~~  
8 ~~recognized that in some instances the impacts of a proposed~~  
9 ~~development may be unacceptable and will preclude approval of the~~  
10 ~~plat.~~

11 ~~(ii) IN REVIEWING A SUBDIVISION UNDER SUBSECTION (1), A~~  
12 ~~GOVERNING BODY MUST BE GUIDED BY THE FOLLOWING STANDARDS:~~

13 ~~(I) MITIGATION MEASURES IMPOSED SHOULD NOT UNREASONABLY~~  
14 ~~RESTRICT A LANDOWNER'S ABILITY TO DEVELOP LAND, BUT IT IS~~  
15 ~~RECOGNIZED THAT IN SOME INSTANCES THE UNMITIGATED IMPACTS OF A~~  
16 ~~PROPOSED DEVELOPMENT MAY BE UNACCEPTABLE AND WILL PRECLUDE~~  
17 ~~APPROVAL OF THE PLAT.~~

18 ~~(II) Whenever feasible, mitigation should be designed to~~  
19 ~~provide some benefits for the subdivider, including allowances~~  
20 ~~for higher density development in less environmentally sensitive~~  
21 ~~sites within the plat, waiver of the park dedication requirement~~  
22 ~~under the provisions of [section 23-21], and structuring~~  
23 ~~mitigation to provide eligibility for tax benefits if land or~~  
24 ~~development rights are donated to eligible receivers.~~

25 Section 25. Section 76-3-610, MCA, is amended to read:

26 "76-3-610. Effect of approval of preliminary plat. (1) Upon  
27 approving or conditionally approving a preliminary plat, the  
28 ~~governing body review authority~~ shall provide the subdivider with  
29 a dated and signed statement of approval. This approval ~~shall~~ may  
30 be in force for not more than 3 calendar years or less than 1  
31 calendar year. At the end of this period, ~~the governing body~~  
32 ~~review authority~~ may, at the request of the subdivider, extend  
33 its approval for no more than 1 calendar year, except that the  
34 ~~governing body review authority~~ may extend its approval for a  
35 period of more than 1 year if that approval period is included as

1 a specific condition of a written agreement between the governing  
2 body review authority and the subdivider, ~~according to 76-3-507.~~

3 (2) After the preliminary plat is approved, the governing  
4 ~~body and its subdivisions review authority~~ may not impose any  
5 additional conditions as a prerequisite to final plat approval,  
6 providing ~~said~~ the approval is obtained within the original or  
7 extended approval period as provided in subsection (1)."

8 Section 26. Section 76-3-611, MCA, is amended to read:

9 "76-3-611. Review of final plat. (1) The governing body  
10 review authority shall examine every final subdivision plat and  
11 shall approve it ~~when and only when~~:

12 (a) it conforms to the conditions of approval set forth on  
13 the preliminary plat and to the terms of this chapter and  
14 regulations adopted pursuant ~~thereto~~ to this chapter; and

15 (b) the county treasurer has ~~certified~~ issued a certificate  
16 of taxes paid pursuant to [section 6 5] certifying that no real  
17 property taxes assessed and levied on the land to be subdivided  
18 are not delinquent.

19 (2) (a) The governing body may require that final  
20 subdivision plats and certificates of survey be reviewed for  
21 errors and omissions in calculation or drafting by an examining  
22 registered professional land surveyor before recording with the  
23 county clerk and recorder. When the survey data shown on the plat  
24 or certificate of survey meets the conditions set forth by or  
25 pursuant to 76-3-403 AND this chapter section, the examining land  
26 surveyor shall so certify in a printed or stamped certificate on  
27 the plat or certificate of survey. ~~Such The~~ the certificate ~~shall~~  
28 must be signed by him.

29 (b) ~~No A~~ A registered professional land surveyor ~~shall may~~  
30 not act as an examining land surveyor in regard to a plat or  
31 certificate of survey in which he has a financial or personal  
32 interest."

33 Section 27. Section 76-3-613, MCA, is amended to read:

34 "76-3-613. Index of plats and certificates of survey to be  
35 kept by county clerk and recorder. (1) The county clerk and

1 recorder shall maintain an index of all recorded subdivision  
2 plats and certificates of survey.

3 (2) This index ~~shall~~ must list plats and certificates of  
4 survey by the quarter section, section, township, and range in  
5 which the platted or surveyed land lies and ~~shall~~ must list the  
6 recording or filing numbers of all plats depicting lands lying  
7 within each quarter section. Each quarter section list ~~shall~~ must  
8 be definitive to the exclusion of all other quarter sections. The  
9 index ~~shall~~ must also list the names of all subdivision plats of  
10 more than five tracts in alphabetical order and the place where  
11 filed."

12 Section 28. Section 76-3-614, MCA, is amended to read:

13 "76-3-614. Correction of recorded plat. When a recorded  
14 plat does not definitely show the location or size of lots or  
15 blocks or the location or width of any street or alley, the  
16 ~~governing body review authority~~ may at its own expense cause a  
17 new and correct survey and plat to be made and recorded in the  
18 office of the county clerk and recorder. The corrected plat must,  
19 to the extent possible, follow the plan of the original survey  
20 and plat. The surveyor making the resurvey shall endorse the  
21 corrected plat, referring to the original plat and noting the  
22 defect existing ~~therein~~ in the original plat and the corrections  
23 made."

24 Section 29. Section 7-16-2324, MCA, is amended to read:

25 "7-16-2324. Sale, lease, or exchange of dedicated park  
26 lands. (1) For the purposes of this section and part 25 of  
27 chapter 8, lands dedicated to the public use for park or  
28 playground purposes under ~~76-3-606 and 76-3-607~~ [section 23 21]  
29 or a similar statute or pursuant to any instrument not  
30 specifically conveying land to a governmental unit other than a  
31 county are considered county lands.

32 (2) A county may not sell, lease, or exchange lands  
33 dedicated for park or playground purposes except as provided  
34 under this section and part 25 of chapter 8.



1 (3) Prior to selling, leasing, or exchanging any county  
2 land dedicated to public use for park or playground purposes, a  
3 county shall:

4 (a) compile an inventory of all public parks and  
5 playgrounds within the county;

6 (b) prepare a comprehensive plan for the provision of  
7 outdoor recreation and open space within the county;

8 (c) determine that the proposed sale, lease, or exchange  
9 furthers or is consistent with the county's outdoor recreation  
10 and open space comprehensive plan;

11 (d) publish notice as provided in 7-1-2121 of intention to  
12 sell, lease, or dispose of ~~such~~ the park or playground lands,  
13 giving the people of the county opportunity to be heard regarding  
14 ~~such~~ the action;

15 (e) if the land is within an incorporated city or town,  
16 secure the approval of the governing body thereof for the action;  
17 and

18 (f) comply with any other applicable requirements under  
19 part 25 of chapter 8.

20 (4) Any revenue realized by a county from the sale,  
21 exchange, or disposal of lands dedicated to public use for park  
22 or playground purposes ~~shall~~ must be paid into the park fund and  
23 used in the manner prescribed in ~~76-3-606 and 76-3-607~~ [section  
24 23 21] for cash received in lieu of dedication."

25 **Section 30.** Section 76-4-102, MCA, is amended to read:

26 "76-4-102. **Definitions.** As used in this part, unless the  
27 context clearly indicates otherwise, the following words or  
28 phrases have the following meanings:

29 (1) "Board" means the board of health and environmental  
30 sciences.

31 (2) "Department" means department of health and  
32 environmental sciences.

33 (3) "Extension of public sewage disposal system" means a  
34 sewer line that connects two or more sewer service lines to a  
35 sewer main.

1           (4) "Extension of public water supply system" means a water  
2 line that connects two or more water service lines to a water  
3 main.

4           (5) "Facilities" means public or private facilities for the  
5 supply of water or disposal of sewage or solid waste and any  
6 pipes, conduits, or other stationary method by which water,  
7 sewage, or solid wastes might be transported or distributed.

8           (6) "Public water supply system" or "public sewage disposal  
9 system" means, respectively, a water supply or sewage disposal  
10 system that serves 10 or more families or 25 or more persons for  
11 at least 60 days out of the calendar year.

12           (7) "Registered professional engineer" means a person  
13 licensed to practice as a professional engineer under Title 37,  
14 chapter 67.

15           (8) "Registered sanitarian" means a person licensed to  
16 practice as a sanitarian under Title 37, chapter 40.

17           (9) "Reviewing authority" means the department or a local  
18 department or board of health certified to conduct review under  
19 76-4-104.

20           (10) "Sanitary restriction" means a prohibition against the  
21 erection of any dwelling, shelter, or building requiring  
22 facilities for the supply of water or the disposition of sewage  
23 or solid waste or the construction of water supply or sewage or  
24 solid waste disposal facilities until the department has approved  
25 plans for those facilities.

26           (11) "Sewer service line" means a sewer line that connects a  
27 single building or living unit to a public sewer system or  
28 extension of such a system.

29           (12) "Solid wastes" means all putrescible and nonputrescible  
30 solid wastes (except body wastes), including garbage, rubbish,  
31 street cleanings, dead animals, yard clippings, and solid market  
32 and solid industrial wastes.

33           (13) "Subdivision" means a division of land or land so  
34 divided ~~which~~ that creates one or more additional parcels  
35 ~~containing less than 20 acres, exclusive of public roadways, in~~

1 order that the title to or possession of the parcels may be sold,  
2 rented, leased, or otherwise conveyed and includes any  
3 resubdivision and any condominium building or area, regardless of  
4 size, ~~which that~~ provides permanent multiple space-spaces with  
5 utility hook-ups for recreational camping vehicles, ~~or~~ mobile  
6 homes, dwelling units, or work camp structures constructed to  
7 exist for longer than one year. For purposes of this subsection,  
8 "work camp structure" means housing provided by a person for two  
9 or more families or employees of that person and the families, if  
10 any, of the employees. "Housing" does not include shelter  
11 provided by an agricultural employer for persons who are  
12 primarily employed to perform agricultural duties on that  
13 person's ranch or farm.

14 (14) "Water service line" means a water line that connects a  
15 single building or living unit to a public water system or  
16 extension of such a system."

17 Section 31. Section 76-4-103, MCA, is amended to read:

18 "76-4-103. What constitutes subdivision. A subdivision  
19 ~~shall comprise~~ comprises only those parcels ~~of less than 20 acres~~  
20 ~~which that~~ have been created by a division of land, and the plat  
21 ~~thereof shall of the subdivision must~~ show all ~~such the~~ parcels,  
22 whether contiguous or not. The rental or lease of one or more  
23 parts of a building, structure, or other improvement, whether  
24 existing or proposed, is not a subdivision, as that term is  
25 defined in this part, and is not subject to the requirements of  
26 this part."

27 Section 32. Section 76-4-125, MCA, is amended to read:

28 "76-4-125. Review of development plans -- land divisions  
29 excluded from review. (1) Plans and specifications of a  
30 subdivision as defined in this part ~~shall~~ must be submitted to  
31 the reviewing authority, and the reviewing authority shall  
32 indicate by certificate that it has approved the plans and  
33 specifications and that the subdivision is not subject to a  
34 sanitary restriction. The plan review by the reviewing authority  
35 ~~shall~~ must be as follows:

1 (a) At any time after the developer has submitted an  
2 application under the Montana Subdivision and Platting Act, the  
3 developer shall present to the reviewing authority a preliminary  
4 plan of the proposed development, whatever information the  
5 developer feels necessary for its subsequent review, and  
6 information required by the reviewing authority.

7 (b) The reviewing authority ~~must give~~ shall take final  
8 action ~~of on~~ the proposed plan within 60 days unless an  
9 environmental impact statement is required, at which time this  
10 deadline may be increased to 120 days.

11 (2) A subdivision ~~excluded from the provisions of chapter 3~~  
12 ~~shall~~ must be submitted for review according to the provisions of  
13 this part, except that the following divisions, ~~unless such~~  
14 ~~exclusions are used to evade the provisions of this part,~~ are not  
15 subject to review:

16 (a) ~~the exclusions cited in 76-3-201 and 76-3-204, a~~  
17 division created OPERATION OF LAW OR by order of a court of  
18 record in this state pursuant to the laws governing the  
19 distribution of estates (Title 72, chapters 1 through 6 and 10  
20 through 14) or the dissolution of marriage (Title 40, chapter 4)  
21 or a division that, in the absence of agreement between the  
22 parties to the sale, could be created by an order of a court in  
23 this state pursuant to the law of eminent domain (Title 70,  
24 chapter 30);

25 (b) a division creating an interest in oil, gas, minerals,  
26 or water that is new or at a later time severed from the surface  
27 ownership of real property;

28 (c) a division creating cemetery lots only;

29 (d) a division created by reservation of a life estate;

30 (e) a division created by lease or rental for farming and  
31 agricultural purposes;

32 (f) the sale, rent, lease, or other conveyance OR USE of  
33 one or more parts of a building, structure, or other improvement,  
34 whether existing or proposed;

1        ~~(b)(g)~~ divisions a division made for the purpose of  
2 acquiring additional land to become part of an approved parcel,  
3 provided that ~~no~~ a dwelling or structure requiring water or  
4 sewage disposal is not to be erected on the additional acquired  
5 parcel and that the division does not fall within a previously  
6 platted or approved subdivision; and

7        ~~(e)(h)~~ divisions a division made for purposes other than  
8 the construction of water supply or sewage and solid waste  
9 disposal facilities as the department specifies by rule; AND

10        (I) A DIVISION CREATED TO PROVIDE SECURITY FOR CONSTRUCTION  
11 MORTGAGES, LIENS, OR TRUST INDENTURES, UNTIL SUCH TIME AS THE  
12 DIVISION IS NO LONGER PROVIDING THAT SECURITY."

13        Section 33. Section 76-6-203, MCA, is amended to read:

14        "76-6-203. Types of permissible easements. Easements or  
15 restrictions under this chapter may prohibit or limit any or all  
16 of the following:

17        (1) structures--construction or placing of buildings,  
18 camping trailers, housetrailer, mobile homes, roads, signs,  
19 billboards or other advertising, utilities, or other structures  
20 on or above the ground;

21        (2) landfill--dumping or placing of soil or other substance  
22 or material as landfill or dumping or placing of trash, waste, or  
23 unsightly or offensive materials;

24        (3) vegetation--removal or destruction of trees, shrubs, or  
25 other vegetation;

26        (4) loam, gravel, etc.--excavation, dredging, or removal of  
27 loam, peat, gravel, soil, rock, or other material substance;

28        (5) surface use--surface use except for such purposes  
29 permitting the land or water area to remain predominantly in its  
30 existing condition;

31        (6) acts detrimental to conservation--activities  
32 detrimental to drainage, flood control, water conservation,  
33 erosion control, soil conservation, or fish and wildlife habitat  
34 and preservation;

1 (7) subdivision of land--subdivision of land as defined in  
2 76-3-103, and 76-3-104, ~~and 76-3-202~~;

3 (8) other acts--other acts or uses detrimental to such  
4 retention of land or water areas in their existing conditions."

5 NEW SECTION. Section 34. Repealer. (1) Sections 76-3-201,  
6 76-3-202, 76-3-203, 76-3-204, 76-3-205, 76-3-206, 76-3-207, 76-3-  
7 208, 76-3-209, 76-3-210, MCA, ARE REPEALED.

8 (2) SECTIONS 76-3-504, 76-3-505, 76-3-604, 76-3-605, 76-3-  
9 606, 76-3-607, 76-3-609, MCA, are repealed.

10 NEW SECTION. Section 35. Codification instruction.  
11 [Sections 5, ~~6, 20 through 24~~ 18 THROUGH 22, and ~~26 24~~] are  
12 intended to be codified as an integral part of Title 76, chapter  
13 3, and the provisions of Title 76, chapter 3, apply to [sections  
14 5, ~~6, 20 through 24~~ 18 THROUGH 22, and ~~26 24~~].

15 NEW SECTION. Section 36. Saving clause. [This act] does  
16 not affect rights and duties that matured, penalties that were  
17 incurred, or proceedings that were begun before [the effective  
18 date of this act].

19 NEW SECTION. Section 37. Severability. If a part of [this  
20 act] is invalid, all valid parts that are severable from the  
21 invalid part remain in effect. If a part of [this act] is invalid  
22 in one or more of its applications, the part remains in effect in  
23 all valid applications that are severable from the invalid  
24 applications.

25 NEW SECTION. Section 38. Applicability. [Sections 2, 3, ~~30~~  
26 31, and ~~32 33(1) 34(1)~~] apply to all subdivision applications  
27 filed after passage and approval. [Sections 1, 4 through ~~31, 33,~~  
28 ~~and 34 29, 31, 32, AND 33(2)~~ 32, 33, AND 34(2)] apply to all  
29 subdivision applications filed after September 30, 1991.

30 NEW SECTION. Section 39. Effective date. [This act] is  
31 effective on passage and approval.

32 -End-  
33  
34

COMMITTEE ON Nature Resources

VISITORS' REGISTER

| NAME                         | REPRESENTING                    | BILL # | Check One |        |
|------------------------------|---------------------------------|--------|-----------|--------|
|                              |                                 |        | Support   | Oppose |
| Kristin Page                 | Mont PIRG                       | HB 637 | X         |        |
| Ann Bower                    | Self                            | HB 924 |           | X      |
| Ann Bower                    | Self                            | HB 924 |           | X      |
| Sandy Bower                  | Self                            | HB 924 |           | X      |
| Lawrence E. Comes            | Self                            | HB 924 |           | X      |
| Gregory Hamilton             | Self                            | HB 924 |           | X      |
| Mark Lee Comes               | Self                            |        |           | X      |
| Mark Lee Comes (Marlo Riggs) | Self                            | HB 637 |           | X      |
| SIM TERRY                    | Customized Pest Control         | 637    |           | X      |
| Dave Terry                   | Customized Pest Control         | 637    |           | X      |
| Robert E. LEE                | Self                            | HB 924 |           | X      |
| Michael Vachon               | Self                            | HB 924 |           | X      |
| Jim W. Torich                | Self                            | HB 924 |           | X      |
| Marvin Barber                | H.P.H.                          | HB 924 |           | X      |
| Honald Schatz                | SCHATZ Ranch                    | HB 637 |           | X      |
| George M. Huley              | Old Country Trails              | HB 924 | X         |        |
| John Mullette                | Orkin Exterminating             | HB 637 |           | X      |
| Larry A. Miles               | Orkin Pest Control              | HB 637 |           | X      |
| Doug Stetson                 | Orkin Pest Control              | HB 637 |           | X      |
| Daryl Carter                 | Orkin Pest Control              | HB 637 |           | X      |
| Robin Livesay                | Orkin Pest Control              | HB 637 |           | X      |
| Byron Graham                 | Orkin Pest Control              | HB 637 |           | X      |
| ED WISDOM                    | ORKIN PEST CONTROL              | HB 637 |           | X      |
| Dave Pickett                 | Battle Weed Board               | HB 637 |           | X      |
| Matthew K Arno               | Mont PIRG                       | HB 637 | X         |        |
| Lorreen Folsom               | Associates for Open Environment | HB 637 | X         |        |

DATE

3-27-91

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COMMITTEE ON

Natural Resources

3pm mtg.

## VISITORS' REGISTER

| NAME               | REPRESENTING                    | BILL # | Check One |        |
|--------------------|---------------------------------|--------|-----------|--------|
|                    |                                 |        | Support   | Oppose |
| James L. Brock     | MTOP                            | HB 637 |           |        |
| Ken Travis         | Asatop                          | HB 637 |           | X      |
| Germa Frank        | Farm Bureau                     | HB 924 |           | X      |
| Hella Hall         | Sold Country B-T. - Helena      | HB 924 | X         |        |
| Joseph M. Elmer    | Mont Farm Bureau                | HB 924 |           | X      |
| Will Simpson       | Montana Felling Equipment       | HB 637 | X         |        |
| Scott Selstad      | AMTOP                           | HB 637 |           | X      |
| John Crowley       | Washington Corp                 | HB 637 |           | X      |
| Tom Herring        | Herring's Lawn Ranger           | HB 637 |           | X      |
| W. S. SAMUELS      | LAWN RANGER BOLEMAN             | HB 637 |           | X      |
| Connel Davidson    | Lawn Ranger Boleman             | HB 637 |           | X      |
| Gordon Herring     | " " Helena                      | HB 637 |           | X      |
| Naime Herring      | Lawn Ranger                     | HB 924 |           |        |
| Marta E. Blake     | Helena Garden Club              | HB 637 |           | X      |
| Katherine Brundage | " " "                           | HB 637 |           | X      |
| John Semple        | AMTOP, Aerial Applicators, Self | HB 637 |           | X      |
| Jane R. Barry      | MTOP, Aerial Applicators, Self  | HB 637 |           | X      |
| Larry Hoffmann     | MCEA                            | HB 637 |           | X      |
| Marvin Barber      | H. P. H.                        | HB 637 |           | X      |
| Dennis Roberts     | AMTOP, Chem Lawn                | HB 637 |           | X      |
| MARK KELLER        | Helena Housing Authority        | HB 637 |           | X      |
| Brad Culver        | AMTOP / Nitro Green             | HB 637 |           | X      |
| John M. Bass       | AMTOP / Lawn Master, Inc        | HB 637 |           | X      |
| Larry Spink        | AMTOP / Nitro - Green / B&M     | HB 637 |           | X      |
| Bob Johnson        | Cascade Co. Mfg. Plant          | HB 637 |           | X      |
| Chris Hindman      | Teton Co. Weed Dist             | HB 637 |           | X      |



