

COMMITTEE REPORT
SENATE

FURTHER:

4/25/84

Date 5/7/84

Mr. President

The Committee on FINANCE considered CSHB 552(Fin)

special appropriations for development of the Delta Junction bison range; afd.

and (a majority of the committee) (the committee) reports it back with the following recommendations:

- do pass
- do pass with attached amendment(s)
- replace with/or adopt CS for _____
- new title
- same title and recommends _____
- and attached a "LETTER OF INTENT" NEW FISCAL NOTE
- reports it back without recommendation
- recommends referral to _____ Committee

MEMBERS SIGNING
DO PASS

MEMBERS HAVING
OTHER RECOMMENDATIONS

Chairman

Chairman recommendation

Offered: 2/22/84
Referred: Rules

Original sponsor: Shultz

Funding Information

General Fund	\$1,604,000
Other Funds	-0-
	<u>\$1,604,000</u>

1 IN THE HOUSE

BY THE FINANCE COMMITTEE

2

CS FOR HOUSE BILL NO. 552 (Finance)

3

IN THE LEGISLATURE OF THE STATE OF ALASKA

4

THIRTEENTH LEGISLATURE - SECOND SESSION

5

A BILL

6

For an Act entitled: "An Act making special appropriations for development
of the Delta Junction bison range; and providing for
an effective date."

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9 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

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* Section 1. Subject to AS 37.25.020, the sum of \$1,544,000 is appropriated from the general fund to the Department of Fish and Game for completion of the Delta Junction bison range development program.

13

* Sec. 2. Subject to AS 37.25.020, the sum of \$60,000 is appropriated from the general fund to the Department of Natural Resources, division of forestry, for the administration of timber sales on the Delta Junction bison range and fire suppression activities associated with required burning on the range.

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* Sec. 3. This Act takes effect July 1, 1984.

CSHB 552 (FINANCE)

"AN ACT MAKING SPECIAL APPROPRIATIONS FOR DEVELOPMENT OF THE DELTA JUNCTION BISON RANGE, AND PROVIDING FOR AN EFFECTIVE DATE."

INFORMATION PACKET

REP. DICK SHULTZ

"An Act making special appropriations for development of the Delta Junction bison range; and providing for an effective date."

In the 1920's, bison were introduced to Delta Junction (then known as Buffalo Center) and have prospered there since. At that time, the only access to the herd was via the Valdez Trail; a narrow, winding, primitive access road from Valdez to Fairbanks. The road itself, and the travelers on it, had very little effect on the bison and offered scant threat to their existence.

In the 1940's, and as a direct result of World War II, the U.S. Army developed Allen Army Air Field (now Fort Greely) and construction of the Alaska Highway began. This was the first real pressure placed upon the herd, in effect, bisecting its' grazing area.

In the 1970's, construction of the TransAlaska Oil Pipeline brought rapid and dramatic growth to the Delta Junction area, again putting pressure upon the herd, and this was followed by the development of the Delta Junction Agricultural Project.

The Agricultural Project offers even more severe threats to the bison, due to the fact that bison are a grazing animal and the cultivation of agricultural products such as barley provided an easily attained source of food to the animals.

Evidence of this fact is shown by the changes in the bison's grazing habits over just the last few years. The bison had previously grazed in areas near the Delta River, but with the advent of the Agricultural Project, they began to graze on and near the site of the farms.

In 1979, the Alaska Legislature established the Delta Junction Bison Range to "PROVIDE AN ADEQUATE WINTER RANGE FOR THE BISON," and to "DIMINISH THE DAMAGE CAUSED BY THE HERDS TO AGRICULTURALLY DEVELOPED LAND." The Range Plan was intended to use the Alaska Highway as a barrier between the Agricultural lands and land designated for public recreation and wildlife, especially bison.

To the extent that it has been developed, the Delta Junction Bison Range has been successful! In 1983, the bison used the range for nearly a month, and only left after they had consumed most of the forage. They then moved across the Alaska Highway and once again caused damage on the Agricultural Project.

Early during the winter of 1983, a group of Delta area residents began meeting to attempt to find a solution to the problem. This group was composed of farmers, sportsmen, a representative of the Division of Game, representatives from the timber industry and other concerned Delta area residents.

A compromise acceptable to all concerned was the main focus of this group, and HB 552 represents the result. \$1,544,000 would be appropriated to complete the range, based on the premise that the bison will not wander onto the farms unless they are hungry. An additional \$60,000 would be appropriated to allow for a timber inventory and sale of marketable timber, thereby offsetting the cost of range development.

Benefits:

1. Tourism would benefit from an completed bison range, and plans call for the development of viewing facilities.
2. An area would be provided which is easily accessible for recreational pursuits; including hunting, trapping, hiking, fishing (there are two stocked lakes on the eastern section of the range), photography, skiing, dog sledding, etc.
3. Firewood would be made available.
4. Improved habitat would be available for sharp-tailed grouse, and other game and non-game birds, as well as moose, bear, hares and other furbearers.
5. Safety along the Alaska Highway should improve, as well as the number of bison road kills being reduced, as the bison learn to stay south of the Alaska Highway.

In summary, HB 552 gives the Legislature the opportunity to solve a long-standing problem, while favorably affecting both the wildlife habitat of the area and the development of the Agricultural Project.

This is not new legislation, but rather the completion of a project begun in 1979 with the creation of the Delta Junction Bison Range.

SECTIONAL ANALYSIS

"AN ACT MAKING SPECIAL APPROPRIATIONS FOR DEVELOPMENT OF THE DELTA JUNCTION BISON RANGE; AND PROVIDING FOR AN EFFECTIVE DATE."

SECTION 1 APPROPRIATES \$1,544,000 FROM THE GENERAL FUND TO THE DEPARTMENT OF FISH AND GAME FOR:

CLEARING.....	438,000
BERM REMOVAL.....	92,400
FORAGE PLANTING.....	616,000
PRESCRIBED BURNING.....	110,000
ROADS & TRAILS.....	5,000
BISON VIEWING FACILITIES.....	5,000
PLANTING & MAINTENANCE EQUIPMENT....	135,000
STORAGE SHED.....	100,000
WATER & SEWER DEVELOPMENT.....	20,000
FOREST OPENINGS.....	<u>13,000</u>
TOTAL	<u>1,544,000</u>

SECTION 2 APPROPRIATES \$60,000 FROM THE GENERAL FUND TO THE DEPARTMENT OF NATURAL RESOURCES FOR THE ADMINISTRATION OF TIMBER SALES DURING COMPLETION OF THE RANGE DEVELOPMENT. INCLUDES A TIMBER INVENTORY.

SECTION 3 PROVIDES JULY 1, 1984 EFFECTIVE DATE.

TOTAL APPROPRIATION: \$1,604,000

City of Delta Junction

Box 229

Delta Junction, Alaska 99737

907 - 895 - 4656

The North End of the Alaska Highway

RESOLUTION 84-23

WHEREAS, the Delta Bison herd has always been an important feature in the Delta Junction community, and;

WHEREAS, agriculture is rapidly increasing in importance to the Delta Junction community and the state, and;

WHEREAS, the Delta Bison herd each year without fail causes serious crop depredations and resulting financial losses for farmers, and;

WHEREAS, this continued conflict degrades the long term outlook for both the bison herd and agriculture, and;

WHEREAS, Senate Bills 337 and 338 and House Bills 551 and 552 would solve this problem by developing fall and winter range for bison on the Delta Junction Bison Range, and a drift barrier to keep bison out of the farming area.

NOW, THEREFORE, BE IT RESOLVED that the Council for the City of Delta Junction requests that the Alaska Legislature and the Governor of Alaska pass into state law the provisions of the aforementioned legislation so that this problem may finally be resolved.

THIS RESOLUTION HAS BEEN PROPERLY ADOPTED this 7th day of February, 1984, by the authorized membership of the City Council of Delta Junction, in Delta Junction, Alaska.

FRANK W. GEIGER, MAYOR

LOUIS E. HEINBOCKEL, MAYOR PRO TEM

LEONARD LEMON, COUNCILMEMBER

MARY LEITH DOWLING, COUNCILMEMBER

MARVIN HINSLEY, COUNCILMEMBER

GLEN WRIGHT, COUNCILMEMBER

FREDERIC READY, COUNCILMEMBER

ATTEST

Laura L. Woolford
City Clerk/Treasurer

**DELTA FISH & GAME
ADVISORY COMMITTEE**



BOX 1082

DELTA JUNCTION ALASKA

99737

January 26, 1984

Senator Bettye Fahrenkamp, Chair
Senate Resources Committee
Alaska Legislature
Pouch V
Juneau, AK 99811

Dear Senator Fahrenkamp:

The buffalo need a home of their own to roam! The Delta Fish and Game Advisory Committee urges your committee to give favorable consideration to Senate Bills 337 and 338 that would solve the conflict between agriculture and bison.

This committee has been vitally interested in bison since we became active years ago. Since that time, we have seen problems with this important resource intensify, and spill over, at times, into a shooting war. We have seen a dozen dead bison scattered over a field after having eaten uncovered fertilizer. Then too, we have observed the bison decimate the farm profits of hard-working men and women.

These two bills offer the first real opportunity we have seen in years of observation for a lasting peace. They offer an opportunity for the business of agricultural development to continue without the threat of losses just at the moment of gain. They offer the opportunity for the bison herd to continue free-ranging on land that is set aside for them and the people that enjoy them.

Thank you for your consideration.

Sincerely,

Dean W. Cummings
Chairman
895-4619

cc: Senator Moss
Representative Shultz
Fairbanks delegation



Greater Fairbanks

Chamber

of Commerce

First National Center

100 Cushman Street

(907) 452-1105

P.O. Box 74446

Fairbanks, Alaska 99707

February 17, 1984

Senator Bettye Fahrenkamp
Pouch V
Juneau, Alaska 99811

Dear Bettye:

The Fairbanks Chamber of Commerce supports the bison bills now before the legislature. They are SB 337 and SB 338 by Moss in the Senate and HB 551 and HB 552 by Shultz in the House.

The bills are carefully tailored to alleviate the problems associated with the Delta bison herd. Bison are grazing animals and need grass type forage to prosper. The bison range is predominantly a forest area and needs to be manipulated to support the bison or they will continue to wander onto area farms causing crop and property damage and creating hazards to equipment and people on the highway. Further, the welfare of the bison will be improved if the range is improved as they will not find it necessary to cross the Alaska Highway in search of food.

The apparent benefits if the bison bills are passed include:

1. Improved welfare of the herd.
2. Decreased crop and equipment damage on farms.
3. Reduced hazard to people and equipment on the highway.
4. Improved tourist and sight-seeing activity.
5. Improved habitat for moose, grouse and bear.

We urge your support for these bills. If you have any questions, please give me a call.

Best personal regards,

Buki Wright
President

cc: Senator Pappy Moss
Representative Richard Shultz

DELTA JUNCTION BISON RANGE

A Proposal for Development

by

David M. Johnson

SUMMARY

This proposal is designed to carry out the mandates of the legislation establishing the Delta Junction Bison Range (AS 16.20.300). The proposal would, if implemented, provide fall bison range to reduce or eliminate crop depredations, bison winter range, and a variety of habitats for game and nongame species. Recreational opportunities, including hunting, trapping, viewing, and photography would be enhanced. Timber resources would be harvested, offsetting the costs of development over time and boosting the local economy.

The proposal would cost \$1.8 million, to be spent over 3 fiscal years. One full-time project position would be funded, and funding for 3/4 years of an existing seasonal position would be included. Purchase of equipment needed for light maintenance work is included. Maintenance costs are estimated to be less than \$34,000 annually.

was planted by July 1983. Bison use of the Range has increased each year. After migrating from their summer range, the bison used the Range almost exclusively for nearly a month in fall 1983, leaving only after the bulk of the forage was exhausted. After that time, the bison crossed the Alaska Highway and caused extensive agricultural damage. Additional forage would have prevented most of those problems.

While the greatest bison use of the Range has been during the fall, the animals also use it during the winter months. They eat whatever perennial grasses are exposed by the scouring winds. Additional forage would mean much more winter use and would provide for the day when bison are excluded by fences from most or all of their former winter range.

The Bison Range provides an outstanding opportunity to develop techniques for improving wildlife habitats in interior Alaska, while providing for real wildlife needs at the same time. Prescribed fire, especially, can be used to advantage on the Range where the dominant cover type is old-growth black spruce. These fires can be used to develop additional forage for bison and to rejuvenate aging stands of deciduous trees for the benefit of moose, both at low per-acre cost.

OBJECTIVES

Short-term objectives are to provide the following:

1. Alternate fall forage for migrating bison to reduce or eliminate crop depredation losses;

2. Winter range for bison to compensate for increasing loss of traditional ranges;

3. New winter range for moose to allow expansion of the moose population;

4. Additional habitat for sharp-tailed grouse and other game birds;

5. New habitat for resident and migratory nongame species; and

6. New recreation opportunities for Alaskans and visitors.

Long-term objectives of Bison Range development are to:

1. Provide permanent wildlife habitat to mitigate for the loss of habitat to agricultural development; and

2. Provide retained public land to continue opportunities to hunt, trap, and view wildlife in an easily accessible area.

HABITAT MANAGEMENT

Capital Phase

1. Clearing

a. Purpose: Clearing provides a seedbed for planting perennial grasses that will be used by bison for long-term forage needs. The clearings also provide wide firebreaks for prescribed fires that will be used to develop additional habitat at low cost.

b. Procedure: Survey interior and exterior perimeters, cutting line with caterpillar tractor; chain down standing trees with heavy anchor chain; stack organic materials into tight berm rows; create

- b. Procedure: Disc soil with heavy or light disc depending on soil depth and amount of surface litter; rootrake with powered rake; plant up to 500 acres with a grass with hay value (e.g., brome); plant remainder with a low maintenance species such as bluegrass and native bluejoint. All plantings should be a mixture of annuals and perennials to protect the perennials in the first year. Suitable annuals include barley and oats.
- c. Time Frame: June or early July + retard plant maturation to provide maximum palatability of the annual for bison. Plant about 1,000 acres during year one, the balance during years two and three. This allows drying time for especially ice-rich areas.
- d. Cost: Estimated 1984 costs - 4,400 acres x \$140/acre = \$616,000

4. Prescribed Fire

- a. Purpose: Fire would be used to rapidly and inexpensively treat large areas. Post-fire vegetative growth would be managed for bison, moose, and/or small game. Repeated fires produce grassy areas; sporadic fires can be used to produce brushy areas.
- b. Procedure: Develop prescribed fire plans in cooperation with Alaska Division of Forestry; burn areas within cleared areas during prescription conditions in summer; use helitorch for maximum cost efficiency and safety.
- c. Time Frame: Summer, when conditions permit.
- d. Cost: Estimated 1984 costs - 5,680 acres x \$20/acre = \$113,600

5. Water Site Development

- a. Purpose: Water is only sporadically available on the portion of the Range proposed for development. Water is available within

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the daily movement limits of bison, but additional water within the proposed habitat development would provide an added incentive for bison to stay within the developed areas and would provide a focus for bison activity for viewers. The ponds would be constructed so as to be suitable for other species as well.

b. Procedure: Develop 2 water sites separated by about 10 miles, one in each rectangle; drill wells to a consistent water source (1 well currently in place); pump water with windmills into stock tanks, the overflow to be piped into earthen ponds lined with a water-impermeable membrane or material.

c. Time Frame: Construction of ponds during clearing activities or year two; erection of windmills during year two.

d. Cost: Estimated 1984 cost \$20,000

6. Forest Openings

a. Purpose: Sharp-tailed grouse in Alaska are known to favor habitats with a mixture of shrubby brush and grassy openings. These openings will provide optimum habitat for grouse, as well as additional habitat for bison and the mixture of habitat types preferred by a variety of nongame species. If this procedure is as successful as expected, the technique could be used more widely on the Range at low cost at a later date.

b. Procedure: Within a 300-acre portion of one of the burned areas, clear plots varying in size from 2 to 20 acres, totaling 120 acres; stack organic materials in center of clearing and burn after suitable drying time; disc to break up aspen roots; allow native grasses to vegetate the openings.

- c. Time Frame: Same as clearing
- d. Cost: 120 acres x \$110/acre = \$13,000

7. Develop Forest Inventory

- a. Purpose: A forest inventory would have the dual benefit of preventing loss of valuable forest products during habitat manipulation activities and would set the stage for future timber sales on the Range. Sale of forest products would in time help offset the cost of Range development and would improve the local economy.
- b. Procedure: Using a reimbursable services agreement or other suitable instrument, contract with the Alaska Division of Forestry to provide timber cruise data on selected portions of the Range. Cooperate with Forestry to sell timber in areas designated for habitat manipulation (clearing, prescribed fire, etc.).
- c. Time Frame: Begin in year one, complete work during year two, to allow time during the project to complete habitat work.
- d. Cost: Estimated 1984 cost = \$60,000

Maintenance Phase

1. Renovate Perennial Grasses

- a. Purpose: Most grasses become sod-bound in time and require breaking up for optimum productivity. Woody plants will invade grasslands if not periodically disced.
- b. Procedure: Using ADF&G equipment and personnel, lightly disc soil on about 10% of the grasslands annually; fertilize and replant as needed up to a maximum of about 50 acres per year.

RECREATION ENHANCEMENT

Capital Phase

1. Roads and Trails

a. Purpose: Visitors will need roads to enter the area. Trails will be used by wildlife, visitors, hunters, trappers, hikers, snow machines, and dog teams. Staff will require access to clearings and manipulated habitat for maintenance.

b. Procedure: Cut necessary roads and trails during clearing operations using caterpillar tractor. Stack organic materials for burning later. Roads to be dirt; no fill or gravel to be added.

c. Time Frame: During clearing, year one

d. Cost: Estimated 1984 cost = \$6,000

2. Viewing Facilities

a. Purpose: Considerable interest exists in bison and other wildlife both among Alaskans and visitors. Viewing facilities will simplify viewing wildlife (especially bison) and provide a means for doing so that does not unduly alarm the animals.

b. Procedure: Construct raised and camouflaged viewing platforms near water sites; construct nature drive or similar interpretative feature.

c. Time Frame: Summers of years two and three

d. Cost: Estimated 1984 cost = \$10,000

Maintenance Phase

1. Roads and Trails: To be handled as part of habitat maintenance.
2. Viewing Facilities: Repair as required; add new facilities as opportunities present; erect information signs as appropriate. Annual cost less than \$5,000.

EQUIPMENT AND FACILITIES

1. Helitorch - Helicopter-transported aerial firing device. Required for cost effective and safe ignition of prescribed fires. Usable by ADF&G and other resource management agencies statewide. On hand now
2. Tractor and Implements - A small- to medium-sized tractor with implements, including disc, broadcast spreader, rototiller, drill, and spare parts inventory. Use for the renovation of perennial grasses, maintenance of forest openings, fireline construction for prescribed fire, seeding and fertilizing of small areas, etc. Cost = \$75,000.
3. Small Bulldozer - A small dozer with 6-way blade for road and trail maintenance, reshaping of ponds, light clearing, berm stacking, etc. Cost = \$6,000.
4. Storage Barn and Shop - Needed for safe storage of equipment above and shop facilities for maintenance. Usable for storage of materials

and hand tools. Includes cost of electrical hookup, road, foundation pad, etc. Cost = \$100,000.

STAFFING

1. Bison Range Manager - Three-year project position; permanent/full time Game Biologist II; total 36 man-months; cost \$150,000 for 3 years.
2. Technician - An existing Fish and Game Technician IV position. Assist manager and continue maintenance work beyond project conclusion. Total 18 man-months during project. Cost = \$56,000 (estimated annual cost during maintenance phase for 6 months work = \$19,000).

BENEFITS

Implementation of this proposal will provide benefits for Alaskans and for area wildlife. Some benefits are:

1. A dramatic reduction in crop depredations in the Delta Junction area, which should in turn
2. Reduce the cost to the State of the proposed State-assisted crop damage insurance program;
3. New moose winter range to replace that lost to development in the Delta Agricultural Project and to provide for expansion of the local moose population;

Maintenance Phase

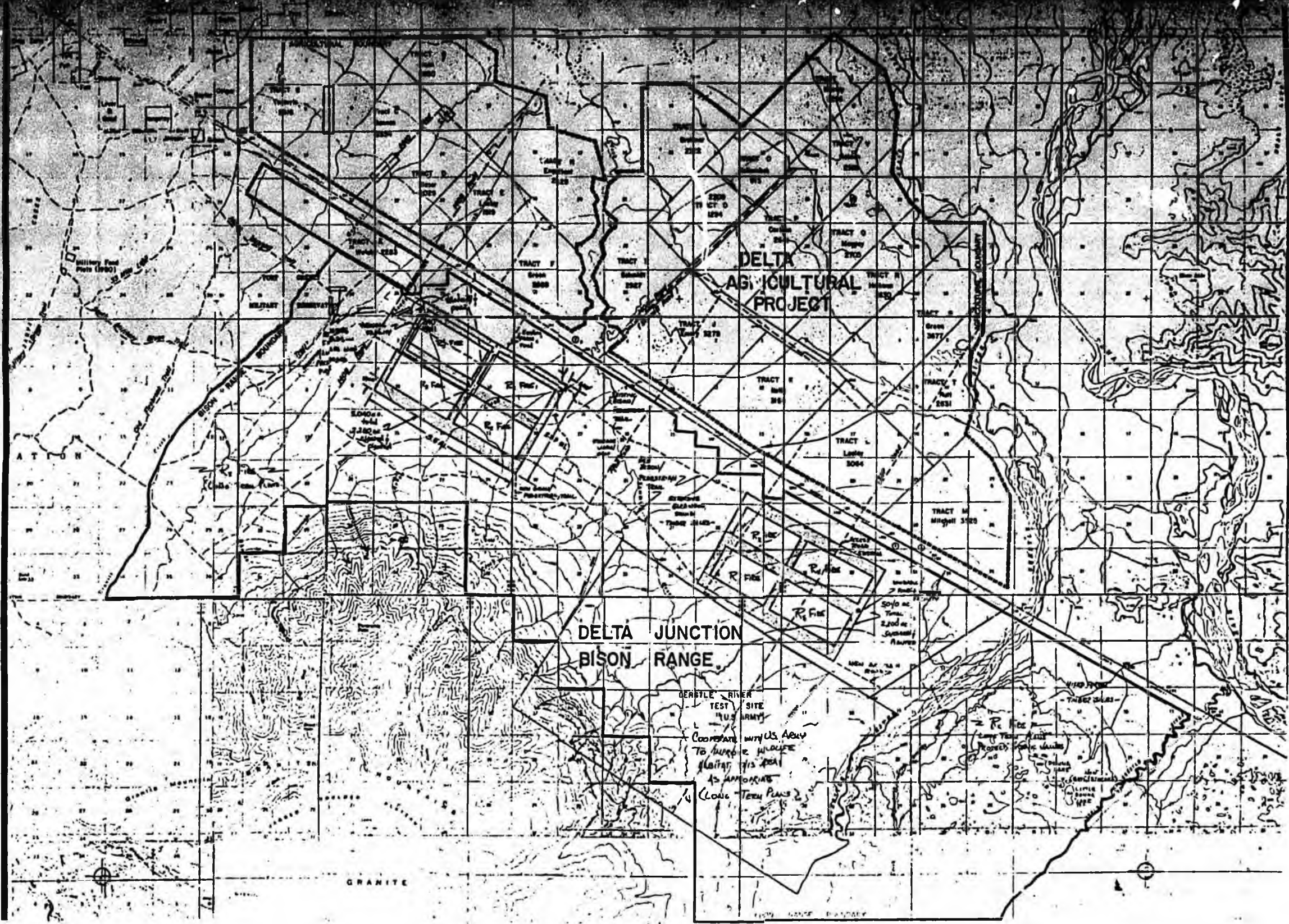
1. Renovate perennial grasses	\$ 13.8
2. Maintain prescribed fire sites	0 to 10.0
3. Maintain water sites	2.0
4. Maintain visitor facilities	5.0 ✓
5. Assist Division of Forestry timber sales	<1.0 ✓
6. Maintain roads, trails, and openings	2.0
7. Maintain hay fields	<5.0
8. Seasonal staffing (6 mo)	<u>19.0</u> ✓

TOTAL MAINTENANCE PHASE \$ 57.8 (maximum)

LONG-TERM DIRECTIONS

1. Bison habitat maintenance should be a long-term commitment for the Delta Junction Bison Range. As conflicts with development are eased, and as summer range improvement continues, the Game Division should examine the possibility of increasing the bison herd beyond the present population goal (275 animals, precalving).
2. Recreational opportunities present a major challenge for the Division. Fast-paced development in the area has eliminated some recreational possibilities. Bison Range development should include new and improved opportunities for the spectrum of outdoor uses of wildlands.





**DELTA
AGRICULTURAL
PROJECT**

**DELTA JUNCTION
BISON RANGE**

GENTLE RIVER
TEST SITE
(U.S. ARMY)
Coordinate with US Army
to improve wildlife
habitat in this area
as appropriate
(Long Term Plans)

ATLANTA

GRANITE



CSHB 552 (FINANCE)

"AN ACT MAKING SPECIAL APPROPRIATIONS FOR DEVELOPMENT OF THE DELTA JUNCTION BISON RANGE, AND PROVIDING FOR AN EFFECTIVE DATE."

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SECTION 3 PROVIDES JULY 1, 1984 EFFECTIVE DATE.

TOTAL APPROPRIATION: \$1,604,000

City of Delta Junction

Box 229

Delta Junction, Alaska 99737

907 - 895 - 4656

The North End of the Alaskan Highway

RESOLUTION 84-23

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WHEREAS, this continued conflict degrades the long term outlook for both the bison herd and agriculture, and;

WHEREAS, Senate Bills 337 and 338 and House Bills 551 and 552 would solve this problem by developing fall and winter range for bison on the Delta Junction Bison Range, and a drift barrier to keep bison out of the farming area.

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MARVIN HINSLEY, COUNCILMEMBER

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FREDERIC READY, COUNCILMEMBER

ATTEST

Laura L. Woolford
City Clerk/Treasurer

**DELTA FISH & GAME
ADVISORY COMMITTEE**



BOX 1082

DELTA JUNCTION ALASKA

99737

January 26, 1984

Senator Bettye Fahrenkamp, Chair
Senate Resources Committee
Alaska Legislature
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Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dean W. Cummings".

Dean W. Cummings
Chairman
895-4619

cc: Senator Moss
Representative Shultz
Fairbanks delegation



Greater Fairbanks

Chamber

of Commerce

First National Center

100 Cushman Street

(907) 452-1107

PO Box 7444

Fairbanks, Alaska 99707

February 17, 1984

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Pouch V
Juneau, Alaska 99811

Dear Bettye:

The Fairbanks Chamber of Commerce supports the bison bills now before the legislature. They are SB 337 and SB 338 by Moss in the Senate and HB 551 and HB 552 by Shultz in the House.

The bills are carefully tailored to alleviate the problems associated with the Delta bison herd. Bison are grazing animals and need grass type forage to prosper. The bison range is predominantly a forest area and needs to be manipulated to support the bison or they will continue to wander onto area farms causing crop and property damage and creating hazards to equipment and people on the highway. Further, the welfare of the bison will be improved if the range is improved as they will not find it necessary to cross the Alaska Highway in search of food.

The apparent benefits if the bison bills are passed include:

1. Improved welfare of the herd.
2. Decreased crop and equipment damage on farms.
3. Reduced hazard to people and equipment on the highway.
4. Improved tourist and sight-seeing activity.
5. Improved habitat for moose, grouse and bear.

We urge your support for these bills. If you have any questions, please give me a call.

Best personal regards,

Buki Wright
President

cc: Senator Pappy Moss
Representative Richard Shultz

DELTA JUNCTION BISON RANGE

A Proposal for Development

by

David M. Johnson

SUMMARY

This proposal is designed to carry out the mandates of the legislation establishing the Delta Junction Bison Range (AS 16.20.300). The proposal would, if implemented, provide fall bison range to reduce or eliminate crop depredations, bison winter range, and a variety of habitats for game and nongame species. Recreational opportunities, including hunting, trapping, viewing, and photography would be enhanced. Timber resources would be harvested, offsetting the costs of development over time and boosting the local economy.

The proposal would cost \$1.8 million, to be spent over 3 fiscal years. One full-time project position would be funded, and funding for 3/4 years of an existing seasonal position would be included. Purchase of equipment needed for light maintenance work is included. Maintenance costs are estimated to be less than \$34,000 annually.

was planted by July 1983. Bison use of the Range has increased each year. After migrating from their summer range, the bison used the Range almost exclusively for nearly a month in fall 1983, leaving only after the bulk of the forage was exhausted. After that time, the bison crossed the Alaska Highway and caused extensive agricultural damage. Additional forage would have prevented most of those problems.

While the greatest bison use of the Range has been during the fall, the animals also use it during the winter months. They eat whatever perennial grasses are exposed by the scouring winds. Additional forage would mean much more winter use and would provide for the day when bison are excluded by fences from most or all of their former winter range.

The Bison Range provides an outstanding opportunity to develop techniques for improving wildlife habitats in interior Alaska, while providing for real wildlife needs at the same time. Prescribed fire, especially, can be used to advantage on the Range where the dominant cover type is old-growth black spruce. These fires can be used to develop additional forage for bison and to rejuvenate aging stands of deciduous trees for the benefit of moose, both at low per-acre cost.

OBJECTIVES

Short-term objectives are to provide the following:

1. Alternate fall forage for migrating bison to reduce or eliminate crop depredation losses;

2. Winter range for bison to compensate for increasing loss of traditional ranges;
3. New winter range for moose to allow expansion of the moose population;
4. Additional habitat for sharp-tailed grouse and other game birds;
5. New habitat for resident and migratory nongame species; and
6. New recreation opportunities for Alaskans and visitors.

Long-term objectives of Bison Range development are to:

1. Provide permanent wildlife habitat to mitigate for the loss of habitat to agricultural development; and
2. Provide retained public land to continue opportunities to hunt, trap, and view wildlife in an easily accessible area.

HABITAT MANAGEMENT

Capital Phase

1. Clearing
 - a. Purpose: Clearing provides a seedbed for planting perennial grasses that will be used by bison for long-term forage needs. The clearings also provide wide firebreaks for prescribed fires that will be used to develop additional habitat at low cost.
 - b. Procedure: Survey interior and exterior perimeters, cutting line with caterpillar tractor; chain down standing trees with heavy anchor chain; stack organic materials into tight berm rows; create

- b. Procedure: Disc soil with heavy or light disc depending on soil depth and amount of surface litter; rootrake with powered rake; plant up to 500 acres with a grass with hay value (e.g., bromes); plant remainder with a low maintenance species such as biggrass and native bluejoint. All plantings should be a mixture of annuals and perennials to protect the perennials in the first year. Suitable annuals include barley and oats.
- c. Time Frame: June or early July to retard plant maturation to provide maximum palatability of the annual for bison. Plant about 1,000 acres during year one, the balance during years two and three. This allows drying time for especially ice-rich areas.
- d. Cost: Estimated 1984 costs - 4,400 acres x \$140/acre = \$616,000

4. Prescribed Fire

- a. Purpose: Fire would be used to rapidly and inexpensively treat large areas. Post-fire vegetative growth would be managed for bison, moose, and/or small game. Repeated fires produce grassy areas; sporadic fires can be used to produce brushy areas.
- b. Procedure: Develop prescribed fire plans in cooperation with Alaska Division of Forestry; burn areas within cleared areas during prescription conditions in summer; use helitorch for maximum cost efficiency and safety.
- c. Time Frame: Summer, when conditions permit.
- d. Cost: Estimated 1984 costs - 5,680 acres x \$20/acre = \$113,600

5. Water Site Development

- a. Purpose: Water is only sporadically available on the portion of the Range proposed for development. Water is available within

the daily movement limits of bison, but additional water within the proposed habitat development would provide an added incentive for bison to stay within the developed areas and would provide a focus for bison activity for viewers. The ponds would be constructed so as to be suitable for other species as well.

b. Procedure: Develop 2 water sites separated by about 10 miles, one in each rectangle; drill wells to a consistent water source (1 well currently in place); pump water with windmills into stock tanks, the overflow to be piped into earthen ponds lined with a water-impermeable membrane or material.

c. Time Frame: Construction of ponds during clearing activities or year two; erection of windmills during year two.

d. Cost: Estimated 1984 cost \$20,000

6. Forest Openings

a. Purpose: Sharp-tailed grouse in Alaska are known to favor habitats with a mixture of shrubby brush and grassy openings. These openings will provide optimum habitat for grouse, as well as additional habitat for bison and the mixture of habitat types preferred by a variety of nongame species. If this procedure is as successful as expected, the technique could be used more widely on the Range at low cost at a later date.

b. Procedure: Within a 300-acre portion of one of the burned areas, clear plots varying in size from 2 to 20 acres, totaling 120 acres; stack organic materials in center of clearing and burn after suitable drying time; disc to break up aspen roots; allow native grasses to vegetate the openings.

- c. Time Frame: Same as clearing
- d. Cost: 120 acres x \$110/acre = \$13,000

7. Develop Forest Inventory

- a. Purpose: A forest inventory would have the dual benefit of preventing loss of valuable forest products during habitat manipulation activities and would set the stage for future timber sales on the Range. Sale of forest products would in time help offset the cost of Range development and would improve the local economy.
- b. Procedure: Using a reimbursable services agreement or other suitable instrument, contract with the Alaska Division of Forestry to provide timber cruise data on selected portions of the Range. Cooperate with Forestry to sell timber in areas designated for habitat manipulation (clearing, prescribed fire, etc.).
- c. Time Frame: Begin in year one, complete work during year two, to allow time during the project to complete habitat work.
- d. Cost: Estimated 1984 cost = \$60,000

Maintenance Phase

1. Renovate Perennial Grasses

- a. Purpose: Most grasses become sod-bound in time and require breaking up for optimum productivity. Woody plants will invade grasslands if not periodically disced.
- b. Procedure: Using ADF&G equipment and personnel, lightly disc soil on about 10% of the grasslands annually; fertilize and replant as needed up to a maximum of about 50 acres per year.

RECREATION ENHANCEMENT

Capital Phase

1. Roads and Trails

a. Purpose: Visitors will need roads to enter the area. Trails will be used by wildlife, visitors, hunters, trappers, hikers, snow machines, and dog teams. Staff will require access to clearings and manipulated habitat for maintenance.

b. Procedure: Cut necessary roads and trails during clearing operations using caterpillar tractor. Stack organic materials for burning later. Roads to be dirt; no fill or gravel to be added.

c. Time Frame: During clearing, year one

d. Cost: Estimated 1984 cost = \$6,000

2. Viewing Facilities

a. Purpose: Considerable interest exists in bison and other wildlife both among Alaskans and visitors. Viewing facilities will simplify viewing wildlife (especially bison) and provide a means for doing so that does not unduly alarm the animals.

b. Procedure: Construct raised and camouflaged viewing platforms near water sites; construct nature drive or similar interpretative feature.

c. Time Frame: Summers of years two and three

d. Cost: Estimated 1984 cost = \$10,000

Maintenance Phase

1. **Roads and Trails:** To be handled as part of habitat maintenance.
2. **Viewing Facilities:** Repair as required; add new facilities as opportunities present; erect information signs as appropriate. Annual cost less than \$5,000.

EQUIPMENT AND FACILITIES

1. Helitorch - Helicopter-transported aerial firing device. Required for cost effective and safe ignition of prescribed fires. Usable by ADF&G and other resource management agencies statewide. On hand now
2. Tractor and Implements - A small- to medium-sized tractor with implements, including disc, broadcast spreader, rototiller, drill, and spare parts inventory. Use for the renovation of perennial grasses, maintenance of forest openings, fireline construction for prescribed fire, seeding and fertilizing of small areas, etc. Cost = \$75,000.
3. Small Bulldozer - A small dozer with 6-way blade for road and trail maintenance, reshaping of ponds, light clearing, berm stacking, etc. Cost = \$6,000.
4. Storage Barn and Shop - Needed for safe storage of equipment above and shop facilities for maintenance. Usable for storage of materials

and hand tools. Includes cost of electrical hookup, road, foundation pad, etc. Cost = \$100,000.

STAFFING

1. Bison Range Manager - Three-year project position; permanent/full time Game Biologist II; total 36 man-months; cost \$150,000 for 3 years.
2. Technician - An existing Fish and Game Technician IV position. Assist manager and continue maintenance work beyond project conclusion. Total 18 man-months during project. Cost = \$56,000 (estimated annual cost during maintenance phase for 6 months work = \$19,000).

BENEFITS

Implementation of this proposal will provide benefits for Alaskans and for area wildlife. Some benefits are:

1. A dramatic reduction in crop depredations in the Delta Junction area, which should in turn
2. Reduce the cost to the State of the proposed State-assisted crop damage insurance program;
3. New moose winter range to replace that lost to development in the Delta Agricultural Project and to provide for expansion of the local moose population;

Maintenance Phase

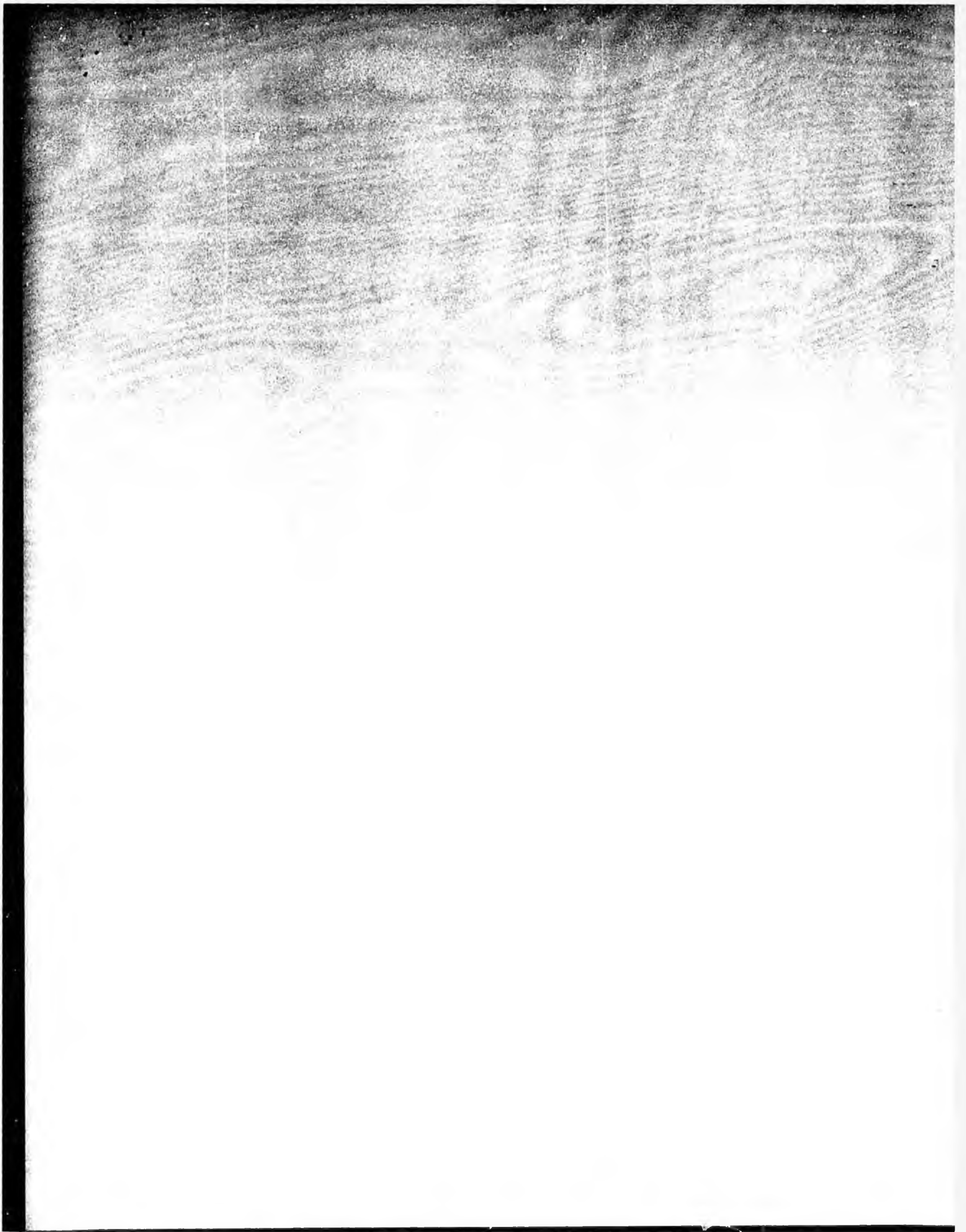
1. Renovate perennial grasses	\$ 13.8
2. Maintain prescribed fire sites	0 to 10.0
3. Maintain water sites	2.0
4. Maintain visitor facilities	5.0 ✓
5. Assist Division of Forestry timber sales	<1.0 ✓
6. Maintain roads, trails, and openings	2.0
7. Maintain hay fields	<5.0
8. Seasonal staffing (6 mo)	<u>19.0</u> ✓

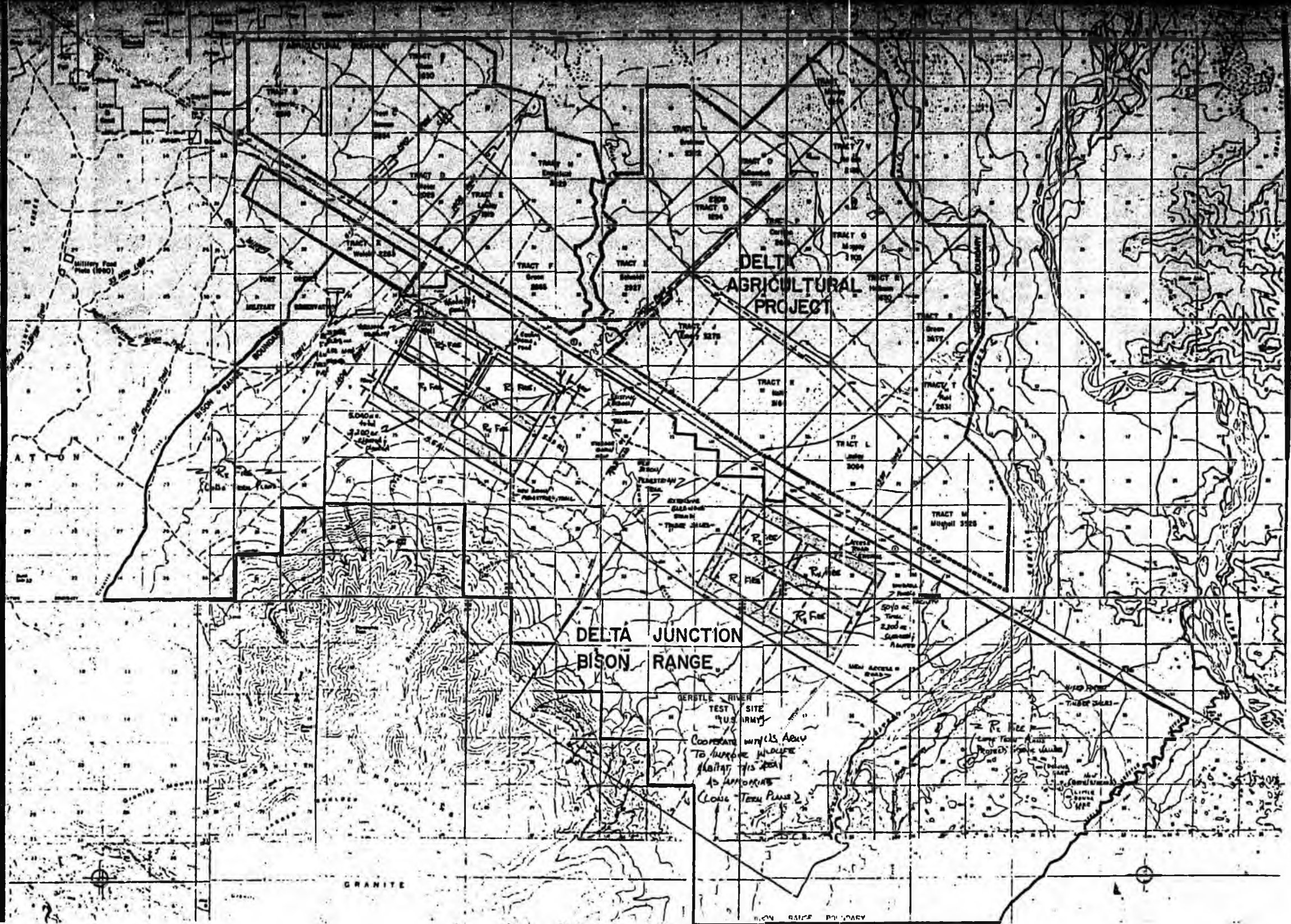
TOTAL MAINTENANCE PHASE \$ 57.8 (maximum)

LONG-TERM DIRECTIONS

1. Bison habitat maintenance should be a long-term commitment for the Delta Junction Bison Range. As conflicts with development are eased, and as summer range improvement continues, the Game Division should examine the possibility of increasing the bison herd beyond the present population goal (275 animals, precalving).

2. Recreational opportunities present a major challenge for the Division. Fast-paced development in the area has eliminated some recreational possibilities. Bison Range development should include new and improved opportunities for the spectrum of outdoor uses of wildlands.





DELTA AGRICULTURAL PROJECT

DELTA JUNCTION BISON RANGE

GERSTLE RIVER TEST SITE U.S. ARMY
COOPERATE WITH US AGRY TO IMPROVE WILDLIFE HABITAT THIS YEAR AS APPROPRIATE (LONG TERM PLAN)

GRANITE

BISON RANGE BOUNDARY

COMMITTEE REPORT
SENATE

Same as SB 338

FURTHER:

FINANCE

3/2/84

Date _____

Mr. President

The Committee on RESOURCES considered CSHB 552(Fin)

special appropriations for development of the Delta Junction bison range; efd.

and (a majority of the committee) (the committee) reports it back with the following recommendations:

- do pass
- do pass with attached amendment(s)
- replace with/or adopt CS for _____
- new title
- same title and recommends _____
- and attached a "LETTER OF INTENT" NEW FISCAL NOTE
- reports it back without recommendation
- recommends referral to _____ Committee

MEMBERS SIGNING
DO PASS

MEMBERS HAVING
OTHER RECOMMENDATIONS

Chairman

Chairman recommendation