RETREAT LANDOWNERS ASSOCIATION, INC.

AGENDA THIRTEENTH ANNUAL MEETING

August 4, 1984

Retreat GHAVFD Firestation, The Retreat

Registration from noon to 1:00 P.M.

1.	Call to order and distribution of proxies.	1:00 PM
2.	Approval of minutes of 1983 meeting.	1:15 PM
3.	President's remarks. Catherine Hubert	1:25 PM
4.	Treasurer's report. Richard Weinmeister	1:40 PM
5.	ACC report. Dennis Bicknell	2:00 PM
6.	Road Maintenance. Ray Stark	2:10 PM
7.	Coffee Break	2:30 PM
8.	Beetle and Budworm Control-Ray Tallman	2:45 PM
9.	Election of Board Members	3:05 PM
10.	Old Business	3:20 PM
11.	New Business	3:40 PM
12.	Landonwer's Comments	4:00 PM
13.	Adjournment	4:30 PM

Discussion may be limited to maintain the suggested time schedule.

IF YOU ATTEND THE MEETING PLEASE BRING THE AGENDA AND BALLOT.

RETREAT LANDOWNERS ASSOCIATION, INC.

NEWS FROM THE PRESIDENT

Your Board of Directors, by your direction, set goals for this to:(1) complete the VTN problem, (2) Work on covenant control, and (3) look into a common-area picnic facility.

Efforts to finally get the VTN boundary controversy settled continues between our attorney and VTN. VTN has had some personnel changes since January which slowed the finalization and the weather this year has not cooperated. At this writing work is continuing and we hope to be able to make the long awaited announcement at the annual meeting.

We continue working on the covenant controls. This is an on-going area and one which involves many aspects and cooperation.

The common-area picnic facility, to date, has not been decided. The perfect area is not available in its natural setting. We are looking at easy access for our landowners, off the main county road for privacy, enough parking area, etc.

As your president, I wish to express my gratitude to the board and committees for their support and willingness to pitch-in. Thanks also goes to those landowners who over the year have contributed their suggestions, help, and cooperation. Working together is what keeps The Retreat the place we all want it to be.

FISHING NEWS

John Fowler reports that he and his son Graham will be stocking Miller Fork and Black Creek with Rainbow trout sometime in early July. There was little high runoff this year, and water conditions are excellent at this time. Fish are being caught in Miller Fork. Also anyone fishing the North Fork between Drake and Glen Haven is advised that this stream is fly fishing only and all trout taken must be released.

THE SIXTH ANNUAL FIRE FAIR

The Glen Haven Area Volunteer Fire Department Fair has been scheduled for Saturday July 7th 1984 and will take place in the center of Glen Haven. As with the previous five fairs events will begin at 10:00 AM and run until about 5:00 P.M.

A horseshoe tournament with several entry classes will highlight the day along with a flea market, food stand, bake sale, arts and crafts, games and contest.

Please bring a homemade donation for the bake sale which has always sold out early in the pasts. The Volunteers' flea market table also need articles for sale so look into the backs of your storage closets and call John Barlow,586-2582, several days before the 7th if you have anything to contribute.

The fair is one of the main revenue sources for the fire department so please come on out and help make it a success.

FIRE DEPARTMENT

The GHAVFD continues as a functioning organized asset to the area. No fires in The Retreat have occured the past year. Several practice fires were enthusiastically controlled near Glen Haven. Efforts this spring included upgrading of the communication system. Several pieces of equipment are under consideration for purchase. Future financing of the GHAVFD is being studied. The contributions of Retreat members is a great help to the GHAVFD; your board urges the members to remember their donaor drive this spring.

ROADS

This is the first year The Retreat maintained its own roads with the road grader purchased last year. The grader has worked well, and expenses have not been excessive. Ray Stark and Ray Tallman are the operators, though others helped last fall while Ray Stark's arm was in a cast. The snows of the past winter and spring gave good opportunities to learn some techniques, and evaluate the grader. It appears that this system will be satisfactory and cost effective. Some fill has been added in places, and work on ditches will be done this year.

TREES

Ray Tallman has just completed a survey of The Retreat for Pine Beetle trees. There are only a few trees with the beetle; some brown pines are due to mistletoe infestation. The owners of the pine beetle trees are being contacted.

You need just a short drive around the Retreat, or hike the trails on Triangle Mountain or Bulwark Ridge to see the defoliation caused by the Spruce Budworm. The budworm ignored the predictions many experts made last year, that it would decline. It did not decline to any noticeable degree and certainly did not go away. This last winter, December of 1983 and January of 1984, was very cold even by Colorado standards with temperatures of 30° below zero and staying below zero for several days. The literature tells us cold temperatures in mid-winter are not all that detrimental to budworm, but late spring storms are credited with halting outbreaks. However if you recall the past five springs, we have had several legitimate late snow and ice storms which appeared to have little real effect either. Apparently as with spraying, timing of these storms is critical. For a storm to really damage a budworm population the individual worms must be exposed and vulnerable. This only occurs at a few points in their cycle: (1) As they move from the hibernaculae to the flowers or needles, as the weather warms up. At 7000 feet elevation this happens about mid-May. (2) As they move from flowers or needles to the current year's developing buds. Budworm populations usually are held in check by a combination of predators, parasites, and adverse climatic conditions, particularly sudden freezing temperatures in late spring or heavy rains when the budworm is moving to new growth. Spiders, insects, and a variety of birds are important predators. Whenever chemical control is used to protect high value trees from defoliation, care should be excercised as to the long-term effect on the budworm's natural enemies. Information on the proper pesticide and its application can be obtained from the Colorado State Forest Service in Ft Collins.

A relative to the familiar Mountain Pine Beetle called the Douglas fir beetle is showing up in growing numbers in budworm damaged forests. The trees may not be dead from budworm defoliation but are stressed. Following attack by the beetle, many trees finally succumb to this potent one-two punch. Currently infested trees should be cut and treated (debarked or sprayed with Lindane) prior to the beetle's flight time, which for most Colorado elevations occurs in late May or June. This is earlier than for MPB and dictates that detection and control actions occur in fall, winter, and spring. Preventive spraying (again with caution) in May with Carbaryl may be warranted for key trees under budworm stress. In deciding whether to invest in preventive spray or not, note the tree's condition and whether Douglas-fir beetle activity is present in the area. This beetle does not post a threat to spruce or true fir trees, regardless of their involvement with the budworm. We hope to have a full report from the Colorado State Forest Service on these two pests by the August 4 annual meeting.

ELECTION OF OFFICERS

The terms of Dale Clark, Cathy Hubert, and Richard Weinmeister expire in 1983. All newly elected board members will serve two year terms.

The following members in good standing are candidates for the three positions:

Graham J. Fowler-Lot 6, Filing 5. I am 28 and employed as a police officer for the City of Longmont. My wife Vicki and I have lived in the Boulder-Longmont area for most of our lives. We have owned our lot for over a year and enjoy fishing and hiking in the area. My father and I stocked Miller Fork last year and are planning on doing it again this year. I believe in keeping the Retreat and its beauty in as natural state as possible and will work towards this goal.

Tom R. Fulton-Lot 80, Filing 1. My wife, Carol, and I moved to 120 Elkridge Court, the Retreat, April 5 of this year. I retired from Western Michigan University, Kalamazoo, Michigan as an Associate Professor of Music Theory after thirty years. Carol was an elementary music specialist in the Kalamazoo Public Schools. We camped on our lot in the Retreat for eight summers before our house here was finished. We love this area and intend to be full time residents here for the rest of our lives. We believe strongly that the Retreat should continue to reflect the principles and philosophies embodied in the covenants and if I serve on the board, I intend to uphold and strengthen these concepts. We have three children, two of whom live in Ft Collins and one in Detroit, and a total of three grandchildren to date.

Catherine Hubert-Lot 58, Filing 1. In 1979 Wally and I purchased our lot and built our cabin in 1980. We and our three daughters spend as much time as possible in The Retreat. We also purchased Lot 57-Filing 1 this year. I am a licensed Colorado realtor with my license at Curran Real Estate in Longmont. Previously I was with Red Carpet Broomfield. I am just completing a two-year term on the Board seving as Vice President and President. My goal is to keep The Retreat natural, safe, and truly "a retreat." Wally and I enjoy fishing, nature and bridge.

Richard Weinmeister-Lot 26,27, Filing 2. Dick and his wife Joanne are residents of Greeley, Colorado. They have two married daughters and grandchildren, and all the families are interested in The Retreat. Dick is the automotive foreman at the University of Northern Colorado. He wishes to keep the Retreat in a natural state, and will work for the benefit of all landowners. Dick has served on the board of directors for three years, was past president of the board and is currently board treasurer. He has initiated a new Retreat accounting system, and has worked to keep the assessments current.

WHY THE STREAM IS NAMED MILLER'S FORK

More than fifty eight years ago two warm friends were on a deer hunt up in what was then wild, primitive country. This was the North Fork of the Big Thompson. At that time there was no road and scarcely a trail through it. Charles D. Miller, father of several children, and who lived on the St. Vrain river, west of Longmont, in company with Charles W. Dennison, were trailing a deer through the underbrush when Dennison's gun was accidentally discharged. The bullet passed through Miller's body and in a few minutes he was dead. This tragedy occurred close to the junction of the North Fork and what is now called Miller's Fork. It was on the 17th of May (1871) and the following taken from "Miscellaneous Meditations" by E.J. Lamb, will explain why he was buried there: "As there were only pony trails in these wild glens at that time, it was impractical-almost impossible to get the body out, and it was consigned to its last resting place close to the tragic spot where he fell, by that lovely stream whose purling, pure waters murmured his last requiem, and which has been named Miller's Fork ever since."

Oct 11, 1929, Lucas Brandt and myself set a suitable stone in cement, marking the sacred spot permanently. This makes three here-to-fore unmarked graves of pioneers...This grave is on the Roy Bryant place about five miles above the Forks Hotel. The other graves that we have marked...(are close to Loveland.)

From OVER HILL AND VALE by Harold M. Dunning, 1956
Johnson Publishing Co., Boulder, Colorado. Page 40-41.

ASSESSMENTS

Members have cooperated in paying their 1984 assessments. As of June 20th there are about five unpaid assessments and action has been taken to collect these accounts. The dollar amount is less than $400.

Assessments are due January 1, second notices are sent out in March. Members are offered the opportunity to make any reasonable arrangment to pay the assessment. If no response is received, letters are sent by the Retreat counsel requesting payment within 20 days. If again there is no response, either liens are filed or collection proceedings are started with the appropriate court.

The Retreat has to be operated in a responsible fiscal manner. Bills are paid, and a reserve maintained. When there is no response for three, four, five months, what other alternatives are open to the board? Expenses are incurred in verifying addresses, ownership and legal costs. The member's thoughts and suggestions would be welcomed by your board.

Colorado State Forest Service

Colorado State University
Fort Collins, Colorado
80523

July 18, 1984 4330

Jim Persichetti
2042 Salsbury Ct
Lafayette CO 80026

Dear Mr. Persichetti:

Steve Krieg left me a note before he left to contact you regarding the Western spruce budworm/Douglas-fir beetle problem your homeowners association is experiencing in the Glen Haven--Retreat area.

As you probably already know, the CSFS effort in your area has been of two types. We prepare several press releases each year for printing in the Estes Park and Loveland newspapers. These basically give current population and damage estimates, defoliation projections, and control measures recommended. Additionally, we answer numerous direct requests by landowners about the pest problem and refer them to commercial applicators for large scale or big tree spraying.

At this point, there has not been a concentrated effort by landowners in your area to coordinate control efforts on any forest pest problem except for Mountain pine beetle in the late 70's. Steve's comment that the area is "not supportive of aerial spraying" leads me to believe there are roadblocks to successful treatment of the problem. In fact, numerous acres are already beyond treatment to retain the mature forest at satisfactory stocking levels.

So.... what do you do? I can not give you that answer since it involves commitment on the part of landowners in your area. More specifically, what do you want to do?

--Continue at the same level of activity and rely on the pest problem to eventually dissipate or,

--Initiate an intensive forest management program to arrive at an optimum number of pest resistant trees through activities that include: aerial spraying for western spruce budworm, fell and treat program for Douglas-fir infested trees, selective reduction of trees in over-dense stands, removal or treatement of potential wildfire fuels, and possible replanting of high mortality acres with a species mix of young seedlings,

--or a middle ground alternative between these two near-extremes.

I suggest you start by:

1) Defining the program area,
2) Obtaining some defined level of commitment from a majority of landowners (or land),

3) Request the CSFS to make a formal pest evaluation of the program area,
4) Meet with me and discuss what is needed, what can be done both physically and economically, and prepare a plan of action with the help of the CSFS evaluation,
5) Present the finished plan to the landowners for approval,
6) Prepare a timetable for action, and
7) GET THE NEEDED WORK DONE.

Current costs to your association of actions suggested in the alternatives are:

CSFS news releases	--no cost
CSFS general pest monitoring (when to treat etc.)	--no cost
CSFS Formal Pest Evaluation--$15/hour but no more than	$240
Defining the program area--maps etc.,	--$5-25
Obtaining a commitment.	?
Commercial aerial spraying	$18-25/acre
Commercial individual tree spraying	$6-15/tree
CSFS marking of Douglas-fir beetle trees	$3/acre
CSFS marking of thinning areas--mature trees	$14/acre
CSFS marking of thinning areas--sapling trees	$18/acre
Meeting to prepare action plan, timetable, etc.	Your time only, No CSFS Charge.

As you can see, the solution is not simple but neither is it complicated. The greater the commitment of the involved landowners, the easier the tasks become.

One last word on results. We are dealing with a "hot" problem. Trees will not respond to the thinning in a defoliated condition as well as if the budworm had not caused damage. Successful spraying allows the new growth to develop normally and manufacture food for the tree to get healthy again. It will take at least three years of new growth to again reach a normal level of food production and low stress. Do not expect one aerial application to heal the problem. However, you may not have to spray each and every year either. Spraying is not recommended at low population levels of the budworm.

I have enclosed printed information on the budworm for your information.

Sincerely,

Ray Mehaffey

Raymond L. Mehaffey
District Forester

RLMkrp

P.S. I will be unable to attend your August 4th meeting as I will be out of state at that time. Any action would be directed at the 1985 population since the time of pesticide control for budworm is past for 1984.

NEWSLETTER-DECEMBER 1984

Dear Retreat Landowners,

From the comments at the annual meeting on August 4th, it was evident that covenant violations were still of great concern. Your board is going to do all it can to enforce the covenants. We have voted to change the by-laws to allow us to take legal action if needed, and charge all expense to the violator. We hope this will not be necessary as all land owners express the desire to keep the Retreat area beautiful and a desireable place to live or vacation in.

All needed road signs are being replaced and much of the road work has been completed, and road work will continue as time and weather allow.

Much time has been spent discussing the Budworm Control. Please see the article by Jim Persichetti elsewhere in this Newsletter.

The VTN boundary problem is about resolved. Larimer County has accepted our proposal and most of the details have been worked out. This should be settled soon.

Your Board has had several meetings since August and they have all put in several hours working on various issues. We hope to hear from the Members about any concerns they would like to have us consider.

Have a Happy Holiday Season!

Jim Piersel
President, RLA

BOUNDARY RESURVEY UPDATE

The revised survey and plats have been completed. The information was submitted to the Larimer County Commissioners, and the County Attorney. The new plats have been accepted by Larimer County as presented.

Affected landowners will be receiving an affidavit and plat in the very near future. PLEASE READ, SIGN, AND RETURN as indicated in the cover letter.

When all the affidavits are filed with Larimer County, the building moratorium will then be lifted-NOT BEFORE.

This should then conclude the entire matter as far as the individual members and Larimer County are concerned.

Your board is happy to welcome Carol Fulton as the recording secretary for board and annual meetings. Carol and Tom Fulton are now year around Retreat residents.

Marcella Bicknell is still the corresponding secretary and assistant treasurer. The corporate office is still 726 Karen Street, Fort Morgan, CO 80701. Any inquiries or letters may be sent to this address.

		EXPENDITURES 1984	BUDGET 1984	BUDGET 1985
ER	Expense Reimbursement	505.87	1,500[1]	1,000
LG	Legal Services	1,994.65	2,500	2,500
SS	Secretarial Services	600.00	600	800
TX	Taxes	61.88	200	150
OS	Office Supplies	421.56	0[1]	750
SB	Surety Bond	63.00	65	65
FF	Corporate Filing Fee	0	15[2]	10
MD	Membership Dues	90.00	80	90
MS	Miscellaneous	80.00	50	100
PB	Pine Beetle Control	0	50	6,000
RM	Road Maintenance (Including Snow Plowing)	1,279.54	2,500[3]	4,000
RG	Road Grader Repair	85.54	0	100
TS	Trout Stocking	650 00	750	700
MT	Meeting (Annual)	60.50	60	60
PS	Picnic Supplies (Annual)	124.89	125	150
IN	Insurance & Workmen's Compensation	930.00	1,300	1,100

[1]Office Supplies--Printing, Postage, etc. were previously carried under expense reimbursements

[2]Biannual due again 1985

[3]As compared to snowplowing hired and road maintenance 1983 (3,844.75)

The budget above has been adopted for the year 1985. The expenditures shown were through mid-October. The Retreat cash balence at that time was approximately $19,500. The assessment for 1985 has been set at $65 for Retreat members, $45 for Bulwark Ridge members. The notices will be sent out January 1, 1985. For the first time in many years, there are NO unpaid assessments. If timely payment of the 1985 assessment presents problems, please advise the Assistant Treasurer, or a board member. Your cooperation helps everyone, and allows good financial operation of the Retreat.

NEWSLETTER

This newsletter is the largest printed by the Landowners in recent years. The material hopefully helps all understand what is happening, and really pertains to two subjects-Nature and the Covenants.

WESTERN SPRUCE BUD WORM AND DOUGLAS FIR BEETLE

By Jim Persichetti

After much discussion on this problem at the 13th annual meeting, the RLA Board of Directors asked the State Forest Service to evaluate the extent of defoliation and infestation caused by the Western Spruce Bud Worm and the Douglas Fir Beetle. A copy of that report is as follows: (Please note that moderate ranges from 25% to 50% defoliation and heavy ranges from 50% to 75% defoliation.)

THE RETREAT

September 24, 1984

At the request of Jim Persichetti (Board member of the Retreat Homeowners Association) a team from the Colorado State Forest Service visited The Retreat the morning of September 24, 1984. The team consisted of Dave Leatherman, entomologist, and Ray Mehaffey, District Forester

We drove the main roads of the subdivision stopping to confirm Douglas-fir beetle killed trees within larger areas of Western Spruce Budworm infested trees. The budworm was found in every north slope stand of Douglas-fir that was identified. Current infestation of the Western Spruce Budworm (WSBW) was determined to be moderate in 1984. It was rated as high in 1981. Defoliation has occurred every year since 1976 with fluctuations from low to high several times from 1976 to 1984.

Infestations of WSBW for four to five years at the experienced level can cause the loss of one out of every four trees. In addition, Douglas-firs and spruce trees weakened by WSBW have increased susceptibility to the Douglas-fir Bark Beetle. Due to repeated loss of new growth during the 1976-1984 period, significant tree losses to the Douglas-fir beetle are being experienced at The Retreat.

SUMMARY OF FINDINGS

Area 1 - Moderate WSBW defoliation, top killing, tree mortality, and Douglas-fir beetle presence. The Retreat portion of this stand is approximately 95 acres but it continues southwest onto National Forest land.

Area 2 - Moderate WSBW defoliation, top killing, tree mortality, and scattered groups of Douglas-fir beetle killed trees. One area of 5-10 acres has 20 percent mortality. Spruce is also infested with WSBW in the drainage bottom. Approximately 100 acres private and 15 acres on surrounded National Forest.

Area 3 - Similar to other areas. Samples were taken of WSBW egg masses to be used in prediction of 1985 budworm populations 25 acres.

Area 4 - Budworm similar and Douglas-fir beetle lower than Area 2. 20-25 acres.

Area 5 - Very steep slope to the northeast. Infestation continues out of The Retreat. High Douglas-fir beetle infestation. Approximately 15 acres within The Retreat.

Other - There are scattered small patches of Douglas-fir within the development where soil moisture conditions permit. WSBW defoliation is generally low in these patches with an occasional Douglas-fir beetle infestation.

1. Aerial spraying in all areas for Western Spruce Budworm on all infested acres with carbaryl to protect the 1985 new growth. Aerial spraying would likely be needed again in 1986. Spraying would very likely not be needed in 1987. Annual evaluations would determine if spraying would be beneficial from 1988 on.

2. Remove trees currently infested with Douglas-fir beetle starting now. This could be done with fuelwood sales to individuals or commercial operators. Steep-slope areas will be a problem to this salvage type of harvest. Priority one areas should be Areas 2, 3, and 4. Area 1 would be next and Area 5 last.

3. Thinning of all areas to reduce stand density to levels which will increase tree vigor and resistance to pests. This can be done concurrent with infested tree removal or later at the discretion of individual lot owners. Work with the Colorado State Forest Service thinning guidelines on densities for each size class of trees. The number of leave trees per acre will vary based upon average tree diameter. Small sized trees will leave more trees per acre than large size trees.

Both practices 2 and 3 will reduce the wildfire fuels available and subsequently reduce the wildfire hazard.

Refer to my letter to Jim of July 18, 1984, and to accompanying information on chemicals for budworm control.

Ray Mehaffey

Raymond L. Mehaffey
District Forester

RLMkrp

District Forester Ray Mehaffey met with the RLA Board at the October 27th meeting and presented his evaluation. He also presented a packet of information on several insecticides suitable for use in arial spraying.

All of the carbaryl insecticides were rejected for enviornmental reasons. A further study of a pesticide called B. T. (a microbial insecticide) was deemed necessary and information on B. T. was prepared and sent to all Board and Committee members.

A special call meeting was scheduled for Nov. 17th to evaluate the information on B. T. A brief information sheet on B. T. is attached to this report.

The Board voted unanimously to proceed with preparations to contract for arial spraying with B. T. the five basic areas outlined in the Forest Service report. The use of the B. T. insecticide will cost 25% to 30% more than carbaryl insecticides, but because of environmental concerns we felt the extra expense would be worthwhile.

The spraying program will occur between mid May and mid June of 1985. The exact time will be monitored by the State Forest Service.

The removal of trees infested by the Douglas fir beetle is a more difficult problem since so many landowners object to letting commercial wood cutters have access across their land. We recommend that for the present individual landowners attempt to cut, treat and remove for fire wood those trees infected by the Douglas fir beetle.

Those trees that have been attacked by the Douglas Fir beetle can readily be identified. The needles have turned a rust or brown color and borings into the tree trunk can be seen. Also, there will be a frass or wood chips at the boring entrance and at the base of the tree trunk. There may also be tree sap coming from the boring as the tree is trying to rid itself of the beetle.

It is important that the infected trees be cut down early in the season.

Please complete this information survey and return to Jim Persichetti, 2042 Salisbury Ct., Lafayette, CO. 80026:

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1. Name

2. Address

3. Would you give permission for a commercial wood cutter to have unsupervised access to your property to remove trees infected by the D. F. B?

4. Do you think someone should be hired to coordinate and supervise the removal of D. F. B. infected trees for approximately three to four weeks duration?

5. Would you give permission for access to your property for removal of D. F. B. infected trees if supervised by someone hired by the RLA Board of directors?

6. Would you prefer to cut and remove your own D. F. B. trees for fire wood by April?

7. Other suggestions.

IMPORTANT QUESTIONS AND INTERESTING FACTS ABOUT THURICIDE® BIOLOGICAL INSECTICIDE

WHAT IS THURICIDE?

Thuricide® biological insecticide is a formulation of spores and unique diamond shaped crystalline bodies produced by the bacterium Bacillus thuringiensis Berliner.

A bacterium is actually a primitive form of plant. Like certain other members of the plant kingdom, such as ferns and mushrooms, Bacillus thuringiensis forms spores which enable it to survive in an adverse environment. During the process of spore formation, Bacillus thuringiensis also produces the unique crystalline bodies as a companion product.

HOW DOES THURICIDE ACT?

Thuricide is not a contact poison. It does not act by touching and being absorbed through the skin of the susceptible insect. The spores and crystals must be eaten before they can act.

When Thuricide is eaten by the larvae of the gypsy moth, or the caterpillar stage of many other leaf eating insects, the crystal soon dissolves and acts by paralyzing the wall of the gut. The resulting stomach ache prevents the larva from further feeding on the foliage. The spores then invade the tissues and multiply in the insect's blood until it dies.

HOW LONG DOES IT TAKE THURICIDE TO ACT?

After eating a dose of Thuricide, the larva will stop feeding within 30 minutes to 2 hours, depending on the amount ingested. Death usually occurs between 3 to 5 days without further feeding.

It is, therefore, particularly important that good coverage of Thuricide on leaf surfaces be achieved during spraying, so that caterpillars will eat a lethal dose at the very first bite.

HOW IS THURICIDE MADE?

Many years ago Bacillus thuringiensis spores were isolated from field-collected, naturally diseased insect larvae and shown to be the cause of the disease.

Later it was found that this organism could be grown outside a susceptible insect host, on a completely artificial diet. Today, the spores and crystals used to formulate Thuricide are prepared on a large scale by deep tank fermentaion, similiar to the way antibiotics and alcoholic beverages are produced.

Each batch of Thuricide is produced in highly automated, aseptic fermentation tanks under rigidly

However, like most natural insect diseases, Thuricide is a selective agent. It is toxic only to one group of insects, namely, the larval stages of the Lepidoptera, which comprise many economically important insect pests. Examples are the spruce budworm, gypsy moth, tent caterpillar, spring and fall cankerworm, cabbage looper, etc. It has no action at all on other forms of life including bees and benefical insects.

WILL THE GYPSY MOTH OR OTHER LEPIDOPTERA DEVELOP A RESISTANCE TO THURICIDE?

With more than ten years field and laboratory experience, there has not been a single instance in which an insect developed even a moderate resistance to Thuricide.

WHAT ABOUT BUILD-UP OF THURICIDE ON TREES OR IN THE GROUND FROM WASH-OFF?

Thuricide® biological insecticide is a natural product and is readily biodegradable. It reaches the user at full potency, but once an application is made, natural processes will begin to break it down. The recommended application rates are calculated to give you a more than adequate dosage immediately after spraying so that gradual breakdown will still leave sufficient residue to provide significant protection.

WILL THURICIDE INJURE THE FOLIAGE OF TREES?

No. Thuricide has been sprayed on thousands of plants and trees No sign of phytotoxicity has been observed at the recommended application rates listed on the label.

HOW SAFE IS THURICIDE FOR HUMANS AND NON-TARGET ANIMALS?

Thuricide is exempt from the requirement of a tolerance for residues on food crops. Granting of this exemption by the Environmental Protection Agency is based on extensive testing of the product to determine both short term and long term effect on humans and warm blooded animals.

A SUMMARY OF THE TESTS IS GIVEN BELOW

1. HUMAN VOLUNTEERS

Human volunteers have each, in a single sitting, eaten Thuricide doses equivalent to 16 billion viable spores and inhaled 1.6 billion spores without any detectable effect.

2. CHRONIC TOXICITY

Chronic toxicity studies on Thuricide carried out with chicks, laying hens, young swine, hogs and fish have shown no toxic symptoms on the test animals. In one of these tests, New Hampshire red laying hens received as part of their diet, a daily supplement of Thuricide for 23 months. No significant differences in weight, appearance, egg number or quality were observed between test and control groups of laying hens.

3. DERMAL, SKIN OR EYE TOXICITY

Thuricide biological insecticide is not irritating or toxic to guinea pig intact or abraded skin and eyes.

4. INHALATION OF DUST OR SPRAY

No toxic reactions were observed in mice exposed 15 minutes to a dust aerosol of Thuricide on each of 6 days. Human volunteers were exposed to 100 milligrams of Thuricide powder orally and by nasal inhalation on each of 5 days. No toxic reactions were observed.

5. INJECTION OF BACILLUS THURINGIENSIS

Parenteral administration to guinea pigs compared Bacillus thuringiensis with B. cereus and B. subtilis, both considered to be nonpathogenic common soil bacteria. Injection of broth cultures of the tree microorganisms caused no toxic symptoms or fatalities.

6. VIRULENCE AND PERSISTANCE IN BLOOD

No virulence developed in mice following 6 serial passage transfers of Bacillus thuringiensis. Bacillus thuringiensis persisted in mouse blood for 48 hours following injection. This is the same order of persistence found for Bacillus cereus. Additional work of this nature was conducted by the U.S. Department of Agriculture. The USDA report concluded, "Animal inoculations and feeding studies give strong support to the existing evidence on the non-infectious nature of B. thuringiensis for warm-blooded animals."

7. EFFECT ON WILDLIFE

No oral toxicity was found for wild pheasants and quail. No adverse effect of Thuricide sprays was noted on caged birds, small mammals, nor on native wildlife populations in studies conducted by the U.S. Department of Agriculture Forest Service and cooperating universities over the years 1960–1965. There were no adverse effects on insects and animal predators or on scavengers of larvae killed by

HOW DO WE KNOW THAT EVERY BATCH OF THURICIDE IS EQUALLY SAFE?

Every batch of Thuricide made is tested for pathogenicity to mice as part of a routine quality control procedure. Before formulation, one million live spores of the preparation are injected into mice, which are then observed for a period of 7 days. Any sign of an undesirable effect would disqualify the batch from being used.

During the past ten years of continuous production, no batch of Thuricide has yet shown any sign of toxicity or pathogenicity in the mouse test.

NORTH AMERICAN BLUEBIRDS

Most of us are aware that man and nature interact in strange and unexpected ways. In the mountains, the loss of birds through pesticides may have contributed to the increase in the various beetles, moths, and worms affecting our trees. Apparently changes in chemical useage are resulting in a resurgence of these birds. Particular birds which influence these beetles are the woodpeckers and the mountain bluebird. The mountain bluebird, certainly one of the prettiest of our birds, needs a diet of the various beetle stages. The bluebird will only make a nest in a cavity, like an old woodpecker hole. If man cuts down all the old dead trees for firewood, the woodpecker doesn't make as many cavities, and certainly there are fewer cavities for the bluebirds. Man could leave some of those trees. For those wishing to know more details you are referred to an article "Bringing back the Mountain Bluebird" by Steven Den in the July-August 1984 issue of COLORADO OUTDOORS. A successful program only a few miles north of the Retreat has increased the number of bluebirds. Further information was obtained from the North American Bluebird Society.

If there are insufficient trees for the cavity dwellers, man can furnish some through bird houses. The building and placement of birdhouses is an excellent project for both young and old. It worked in the Retreat last year; the NFS has some houses around the Dunraven trailhead. It is possible to have three broods per year in one house. For those who want to interact with nature in a non-destructive manner, we suggest you build a birdhouse or two from the furnished sketches and put them on your land.

THIS SUMMER LOOK FOR THIS BIRD ALONG THE STREAMS IN THE RETREAT

By Graham Fowler

The Water Ouzel or "Dipper" is a short, dark grey bird that can be seen along Miller Fork. It gets its nick-name, "Dipper", from its habit of bobbing up and down while standing. The Dipper builds its nest of moss on rocks along Miller Fork and other streams near fast moving water and waterfalls. The inside of the nest is lined with water-repellent grasses. The outside, kept moist by spray or mist, will be green while the inside will stay dry. The Dipper dives into the stream to feed and actually walks on the bottom to hunt for insect larvae, its main source of food. Happy bird watching.

TROUT STOCKING

by Graham Fowler

This year Rainbow and Brown trout were stocked in Miller Fork. Rainbows with a clear reddish band along their side are a favorite with fishermen because of their fighting ability. Browns, dark above, silvery below with numerous large black spots are smarter and harder to catch than other trout. Brook trout, not stocked, are dark olive, with "marbled" black and red spots along their side and white edged fins.

Brooks rarely exceed eight inches but are easily caught and make for good eating. If you wish to return a fish to the water, here are a few tips to prevent the trout from a lingering death:

1. If you have to touch the fish, wet your hands first.
2. Remove the hook quickly and return the fish to the water immediately.
3. If the hook is swallowed, not lip caught, cut the leader and leave the hook in the fish. It will rust away.
4. Don't touch the gills and handle the fish as little as possible.
5. Release the fish into the water by holding it loosely with its head upstream until it swims away.

I hope this information will make fishing more enjoyable and rewarding for you. Good luck.

FIRE IN THE RETREAT

by Jim Persichetti

It was early morning, Setp. 22nd when Roy Hawthorne stopped by my cabin and said that he had seen a column of smoke from the road on Bullwark Ridge. We returned to the top of the ridge and climbed a rock outcropping. Using field glasses we could see that the smoke was coming from the southeast ridge of Triangle Mountain between the Richards' cabin and the Huberts' cabin.

I left the Hawthornes and drove down to the Russell cabin and asked Rick to call the Fire Department and grab a shovel and join me as I would climb up to the fire until help arrived.

I drove to the Hubert cabin and headed for the fire area. Pat Morris, and Larry Boehme who had also seen the smoke were already at work building a fire bread around the fire area. A few minutes later Rick Russell and Doug Grice arrived. Doug had climbed up from his home along the North Fork on the south side of Triangle Mountain. Later, we could hear other members of the G. H. V. F. D. coming up Dunraven Glade Road. Doug, using his two-way radio advised them that the fire was under control and they need not make the steep climb up the mountain.

Pat and Larry determined that the fire was probably started Friday when lightening struck a standing dead tree and ignited a downed tree of thirty feet or so in length. This tree in turn set several other standing dead trees and grass aflame with flames 5-6' up their trunks when the two men arrived.

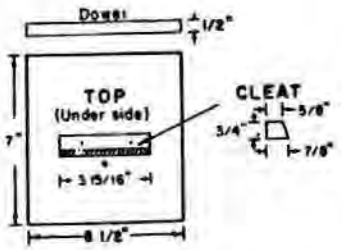
We were very lucky that the humidity was high Friday evening, keeping the fire from burning rapidly during the night. When it was spotted Saturday morning, the wind was picking up and drying off the evening moisture. By early detection and action by Retreat neighbors and the G. H. V. F. D., a property threatening forest fire was averted.

My sincere thanks to Roy Hawthorne, Pat Morris, Rick Russell, Larry Boehme, Doug Grice, the Glen Haven Volunteer Fire Department and the Larimer County Sheriff's officer who also spotted the fire from the switch back atop Devil's Gulch road and radiod in a report.

side 1.

BLUEBIRD NESTING BOX PLANS AND INSTRUCTIONS

NORTH AMERICAN BLUEBIRD SOCIETY, INC.
P.O. Box 6295
SILVER SPRING, MARYLAND 20906 • 0295
(301) 384-2798

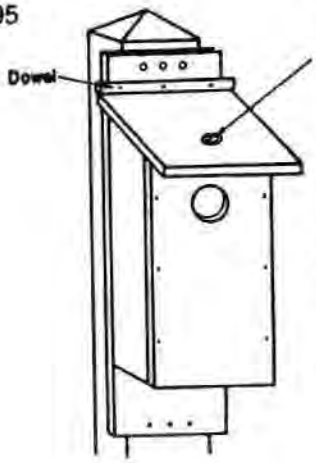


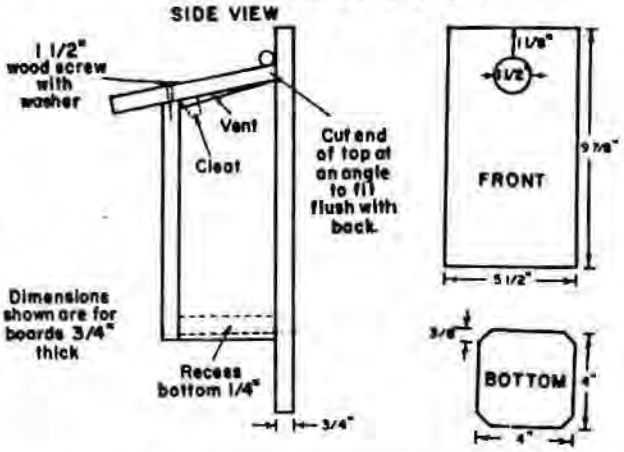
Use 1¾" galvanized siding nails or aluminum nails, 1¼" for dowel.

Drill 3/32" holes in dowel for easy nailing.

With top in place, hold cleat in exact position for nailing by reaching through bottom of box before bottom board is attached.

Cut ⅜" off each corner of bottom board as shown.





This educational material is made possible by a grant from the **Blue Bird Body Company**, of Fort Valley, Georgia, 31030, builders of School Busses and Transit Busses.

The nesting box pictured above has been carefully designed to meet bluebird requirements, to last for years, and to provide for easy mounting and easy access for observation and cleaning. It cannot be entered by starlings and, if properly located, sparrow interference will be somewhat minimized.

Painting. Nesting boxes made of cedar, cypress, redwood or exterior grade plywood need not be painted. Boxes made of other woods will last longer if painted with exterior type latex paint. Use light colors only to prevent overheating. Paint only the outside of the box. Do not use paints that contain lead or toxic wood preservatives such as pentachlorophenol. Exterior plywood is recommended for the top board since it will not warp.

Location. Selecting a suitable location for the bluebird nesting box is of utmost importance. Unfortunately bluebirds no longer nest in cities, large towns, or close-in suburban areas. Thus success can be expected only in far-outlying suburbs, in small towns, and rural areas.

Bluebird nesting boxes should be erected in reasonably open areas since the birds will not nest in the woods and rarely in the deep shade. Best of all is an open area with scattered trees, a considerable distance from buildings, and where the ground is not covered with underbrush or tall grass or weeds. Pastures, fields, open waste lands, large lawns, cemeteries and golf courses are usually good locations. Ideally, the bluebird nesting box should face an open area with a tree, large shrub or fence from 25 to 100 feet in front of the box. The young birds will usually reach this on their first flight and have a better chance of surviving the first critical hours out of the nest. Bluebirds usually will not nest closer together than about 100 yards.

Mounting. By using the small holes shown in the top and bottom extensions of the backboard, the box may be nailed or screwed to the top or side of a wooden post, or it may be bolted or wired to the top or side of a metal post. A smooth metal post such as a galvanized pipe is preferred to a wooden post since it offers better protection against climbing predators, particularly if the post is coated with soft grease while the bluebirds are occupying the box. A ½ or ¾ inch galvanized pipe threaded at one end can be neatly and firmly attached to the bottom of the box by means of a pipe flange which may be obtained at any hardware store. A bluebird nesting box on a wooden post may be protected from predators by means of a sheet metal collar or conical guard 18 or more inches wide attached just below the box. Where predators are not a problem nesting boxes may be mounted conveniently on posts of existing fences, on utility poles (if the utility company permits), or on the trunks of isolated trees (never among the branches). If posts of pasture fences are used the boxes should be on the side away from the animals. Bluebird nesting boxes should be mounted at a height of from 3 to 5 feet. higher where there is a danger of vandalism. They should preferably be set out by late winter.

Raccoons. A raccoon guard made of a small board 1½" thick with a 1½" hole helps to control raccoons and other large predators. This guard is attached firmly to the front of the box so that the hole coincides exactly with the entrance hole in the box. Extra deep nesting boxes are also helpful.

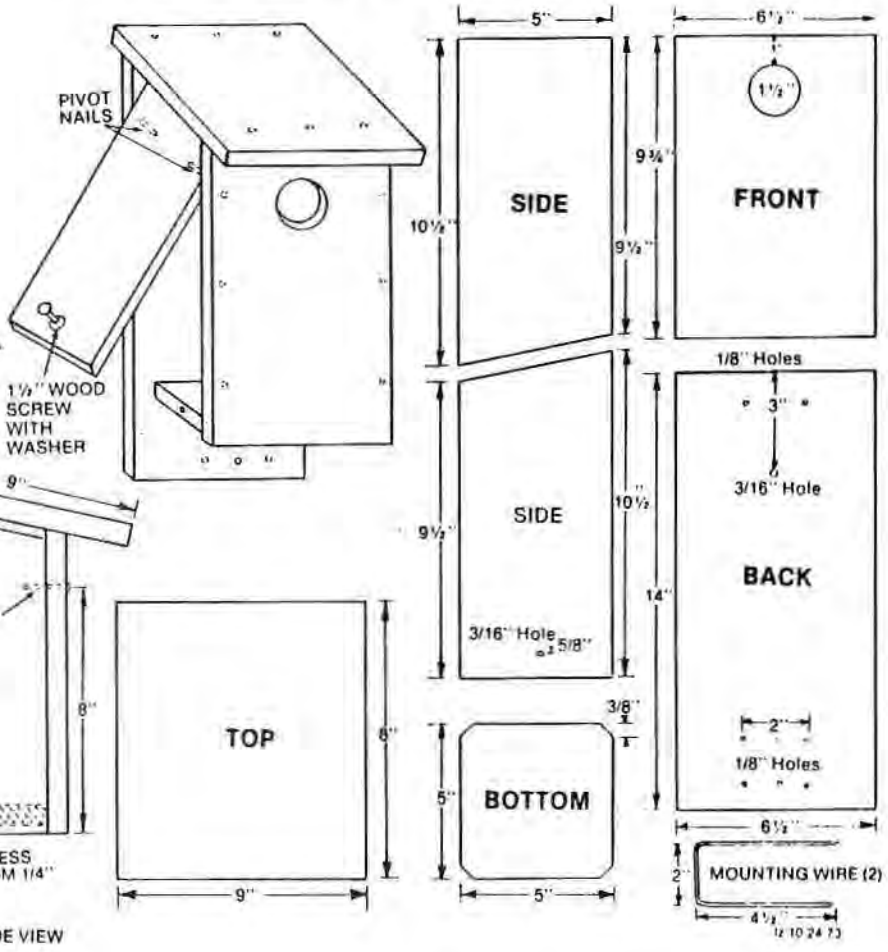
Sparrows. The common house sparrow, an introduced foreign bird, is one of the worst enemies of the bluebird. Sparrows are discouraged to some extent by the small floor size of the bluebird nesting box, by mounting the box rather low (3 to 5 feet), and by locating the box at a considerable distance from buildings or other places where sparrows tend to congregate. If sparrows do use the nesting box their nests should be removed repeatedly, daily if necessary, during the nesting season.

Maintenance. Bluebird nests should be removed from the boxes as soon as the young have left since this will increase the chances of second or third broods being raised in the same boxes. The boxes should be inspected, cleaned, and repaired if necessary in late winter each year, making sure that the drain holes in the floors are open.

side 2.

BLUEBIRD NESTING BOX PLANS AND INSTRUCTIONS

NORTH AMERICAN BLUEBIRD SOCIETY, INC.
P.O. Box 6295
SILVER SPRING, MARYLAND 20906 • 0295
(301) 384-2798



Dimensions shown are for boards 3/4" thick.

Use 1-3/4" galvanized siding nails or aluminum nails.

Pivot nails must be located exactly opposite each other as shown for proper opening of side board.

Cut top edges of front and back boards at slight angle to fit flush with top board.

Cut 3/8" off each corner of bottom board as shown.

Insert bottom board so that the grain of the wood runs from front to rear of box.

Side-opening nesting box. For greater ease in cleaning and monitoring a side-opening box is sometimes used. Opening the side of the box for inspection while birds are nesting in it is somewhat more disturbing to the birds than in a top-opening box. For this reason it is recommended that a side-opening box containing nestlings more than 13 days old be opened with extreme care if at all to avoid the possibility of premature fledging of the nestlings.

Larger nesting box. The 4" x 4" box is large enough for practically all broods of Eastern Bluebirds and most broods of Mountain and Western Bluebirds, but the 5" x 5" box may have some advantage for the latter two species and may also be safer for Tree Swallows which often occupy bluebird nesting boxes in the northern states and Canada.

Below is a detailed plan for a side-opening bluebird nesting box with a 5" x 5" floor. This plan can also be used for a side-opening box with a 4" x 4" floor simply by making all boards one inch narrow and the top and bottom boards one inch shorter than shown. Similarly, a top-opening box with a 5" x 5" floor is easily made from the plan on the other side of this sheet by making all boards one inch wider and the top and bottom boards as well as the dowel and cleat one inch longer than shown in the plan.

Plan for Side-opening Nesting Box with 5" x 5" Floor

The side-opening nesting box may be mounted in ways similar to those described for the top-opening box (see other side of this sheet). When mounting wires (see plan) are used to mount the box on the side of a metal post the two ends of the upper wire are inserted through the 1/8" holes near the top of the back board. This must be done with the side wide open. If the box is mounted on the side of a wooden post or tree trunk a round-headed screw may be used in the 3/16" hole in the back board. A long-handled screw driver is inserted through the entrance hole of the box. A metal washer should be used on the screw.

Raccoon guards as described on the other side of this sheet are recommended for all types of nesting boxes in areas where these animals are troublesome, unless other means are used to prevent them from reaching the boxes.

Chickadee, titmouse and nuthatch nesting boxes. Both of the above-described 4" x 4" floor nesting boxes are suitable for and often used by chickadees or titmice, especially when they are located close to wooded areas. Nuthatches will also occasionally use the boxes in these locations. If the entrance hole is made only 1-1/8" in diameter, chickadees, Brown-headed Nuthatches, and Pygmy Nuthatches can enter the box readily but House Sparrows are excluded. A raccoon guard with a 1-1/8" hole can be attached to a bluebird nesting box to accomplish the same purpose.

The following ammended by-laws was adopted by the RLA Board of Directors at the November 17, 1984, meeting. The Board felt this change was needed to give it a tool to help with the problem of covenant enforcement. It is our sincere hope that all members, as good neighbors will live by the covenants and that this enforcement tool will never be needed.

Please insert this change in the By-laws Section of your Owners Booklet.

AMENDED BYLAWS OF

THE RETREAT LANDOWNERS ASSOCIATION, INC.

ARTICLE VII

Dues, Fees, Enforcement of Covenants

Section 5. Enforcement of Covenants.

a. The Board shall be responsible for the enforcement of the Amended Covenants.

b. The Board may delegate this responsibility to any Board member or subcommittee of the Board.

c. In the event that the Board determines that a member is in violation of the covenants, the Board or its agent shall notify the member of the violation in writing and allow the member 30 days to correct the violation.

d. If the member fails to correct the violation and the Board incurs expenses or attorney fees in enforcing the covenants, then the member shall be responsible to pay all expenses and attorney fees incurred by the Board in enforcing the covenants.

e. Any expenses or costs incurred by the Board shall be repaid to the Board by the member within thirty (30) days of written notification by the Board to the member of the expenses and/or attorney fees incurred by the Board.

f. If the member fails to pay said amounts within the thirty (30) day time period, then all such costs, expenses, and attorney fees shall be an automatic lien upon the real property owned by the member in The Retreat subdivision. The Board may, without the necessity of legal proceedings, file a Notice of Lien with the Larimer County Clerk and Recorder, and said notice shall act as a lien upon the member's real property within The Retreat.

g. The Board may take any and all steps, including legal action or suspension of a member's privileges, that it deems necessary to enforce the Amended Covenants.

h. The above provision shall in no way limit the legal rights of a member to seek the enforcement of the Amended Covenants.

FENCES

"Something there is that doesn't love a wall..."
From "Mending Wall" by Robert Frost.

Frost, a New Englander, spent time building and repairing walls made of stone. He spent more time pondering the place and effect of walls. Here in the west we call such walls fences and generally build them of wire or wood. In the Retreat fences and corrals are becoming more prevalent and noticeable. Your board has received comments and inquiries from members about fences and wishes to make certain all understand the conditions for fencas.

There are two covenants which pertain to fences, Numbers 4 and 17. At the time the covenants were written, the developer of the Retreat was to build a horse stable for all to use; this was not built due to his financial problems in the early 1970's. Covenant 17 says you may keep no more than two horses per acre on your lot and they must be confined by a fence or other rest raint. The fence or other restraint must be 50 feet from <u>any</u> boundary line. This is a straightforward requirement and must be followed. Any landowners not meeting this requirement, who have not discussed this with the board or ACC, are asked to bring their fences into conformance. Notify the board this month if you have questions or problems.

Robert Frost wondered if fences were necessary if there was no livestock. Covenant 4 addresses other fences by including them in the exceptions to setback restrictions. In part, #4 says "... No structure, wall, fence or hedge over five(5) feet in height shall be constructed ... within 25 feet of any boundary line which extends along a street or public way." Fence restrictions along the other boudary lines are relatively few, and these are fully described in the first part of #4. We should note that a fence less than five feet high could be setback 25 feet from the road, set back 1 foot from the other property lines, and probably meet the requirements of Covenant 4. If a horse was put inside the fence, Covenant 17 would be violated.

It is not the board's intention to confuse the issue by getting into hypothetical scenes. The board wants a sketch showing lot number and filing, lot lines, fences and corrals with setbacks, and intended use from any landowner who has <u>not previously</u> furnished such information. This can then be used to assure your neighbors you are in conformance, or to serve as a guide to bring your installation into conformance. Please send your diagrams to the board at the corresponding secretary's address. The board hopes for voluntary compliance by the members, and that all fences will be correct by Spring 1985.

For those members planning fences of any category, you are urged to furnish your plans to the Architectural Control Committee before starting installation.

BUILDING IN THE RETREAT

Landowners, both old and new, often have questions about building on their land. The intent of this article is to furnish answers to some of these questions. The Architectural Control Committee (ACC) handles these areas for the board. If you want to dig a driveway, build a cabin, or build a fence or shelter, contact the ACC for a form, fill it out, and return it to the address given. Remember the ACC has 30 days to take action on your request. If a contractor is to do work for you, be certain one of you does the paperwork; the landowner is still responsible. The ACC also will offer help in any other way- materials used by other, experiences of other landowners, contacts for contractors, reseeding mixtures, etc, and also has a few planning books available..

Electricity is obtained thru the Town of Estes Park. Complete arrangements can be completed at the Estes Park Municipal Building. Water is obtained from a well, requiring a State permit, or a cistern system. Building permits are obtained from Larimer County as are the subsequent inspections. While there may be interpretation problems with the inspectors, don't expect to use money to clarify the interpretations. Telephone cable is in parts of the Retreat; call the telephone company in Ft. Collins..

It is possible and probably best to build in stages; this allows sufficient time for better planning. A scheme involving a driveway and site preparation one year, electricity and septic system the next year, followed by exterior completion the third, etc, allows intelligent budgeting and the completion of projects.

In all cases disturb as little ground as possible. Most of the Retreat has a very thin covering of viable topsoil. The growing season is short, and erosion can start quickly. Make certain you and your contractor know the work areas. Regrowth time is measured in years.

In order to blend with our natural surroundings, we suggest that TV dish placements and propane tanks be located out of sight, and painted in a camoflage manner (green and brown to grey.) Most manufacturers of the dishes can offer guidance for paints. It appears paint will not cause an appreciable loss of signal. The board would like members considering a TV dish to contact the ACC for placement and painting guidance.

EROSION CONTROL

Rocky Mountain National Park has had good luck with controlling soil erosion through the use a reseeding blanket. I.B. Mueller obtained some information which is included for your consideration.

Erosion Control Blanket
48" X 180 Ft.
Weight 78 lbs
Price per roll $40.80

American Excelsior Company
(Carol Hendricks, Sales)
6475 North Franklin St
P.O. Box 29579
Denver
CO 80229

MARK YOUR CALENDAR

The 1985 annual meeting will be held July 27, 1985 at the Glen Haven Community Building. In the future, all annual meetings will be held on the last Saturday of July.