





January 24, 1990

Do something!

That's what this issue of the Link is all about. We all know the environment is in trouble. The air we're breathing, the water we're drinking, the ground we're building on, the food we eat - all contaminated with toxic pollutants. The ozone layer is thinning, the globe is warming, the rainforests are being destroyed, resources depleted, waste problems growing, plant and animal species are disappearing, the list goes on and on. As the problems get worse, we become more and more desensitized to them, to the point that we simply adjust our expectations downward to match the level of the mess we're in.

Rarely do we consider the individual's role in the slow strangulation of the planet. The blame is passed on to the "big" polluters. We too easily forget that the big polluters, driven by the bottom line, will always take the easy way out. Unless consumers are committed to alternative products and practices, and demand and support change, the big corporations will continue to produce and market their destructive wares in their destructive ways.

This issue of the Link, then, is an effort to empower the students and staff of BCIT to pursue the kinds of changes that will reverse the globally destructive path society is on. Much "how-to" information has been included, although it really barely scrapes the surface of what can be done. Clearly, however, traditional journalistic rules have been turned aside today. These articles are not, by and large, carefully weighted studies of both sides of the issue. They are unabashedly passionate calls to the students and staff of BCIT to work for the good of the environment.

We all have a stake in the outcome.

- Don Wright



By Jack and Susan Norie

Man is the only species on Earth that has the capability of controlling or affecting all other species on the planet. It is truly sad that that our power has grown to such a great level. Is it fair that we should be able to dominate any other plant or animal? Not really! this power, along with our lust for growth, has pushed the entire planet into an unprecedented eco-crisis, The horrifying possibility clearly exists that, should we not change our ways, we could be heading toward the eventual extermination of our own species. This is not the stuff of nightmares, this is reality. We ALL must recognize that this situation exists and use our enormous power to start righting the wrongs that

Environmentips

we're doing

To deny that serious ecological problems exist would be akin to doing nothing about your child's new illness. What parent would sit back and let the illness take its course? You would tackle the situation head on and do anything possible to improve the child's health.

The two of us are not "gloom and doomers". We are realists. We recognize that the world is in a state of crisis and we are doing everything that we can to help solve the problem.

We are also optimists. If we weren't, we most likely could not dwell on the topic of the environment from week to week - it would be too depressing. So we look

cans and plastic. If your community

has no recycling center, work to get

mechanic to drain coolant into

evaporate, and to flush the system

with products that don't contain

CFCs. Take old oil, tires and car

batteries to hazardous waste center.

organic insecticides and fertilizers,

you must use disposables,

biodegradables are available in

some areas, but they stillallow human waste to enter the ecosystem

your yard saves you in heating,

also absorb pollutants.

foams with CFCs.

or car pools.

fibreglass or cellulose fiber

traps and beneficial bugs that attack

11. Diaper the baby in cloth. If

12. Plant a tree. Every tree in

cooling and soil erosion costs. They

13. Insulate your home with

unsulation instead of rigid urethane

14. Use public transportabtion

15. Don't buy endangered

plants, animals or products made

from overexploited species (furs,

at the Real Canadian Superstore

under their "Green" products line

Extinction of any species can

threaten the ecosystem."

ivory, reptile skin or tortoise shell).

* You may obtain such a brand

10. limit use of pesticides. Try

bottles rather than letting it

9. Replace auto air-conditioner hose every three years. Ask the

15 ways to make a difference

one set up

garden pests.

By Jack and Susan Norie We would like to share with you "Fifteen ways you can make a difference", which we clipped and saved from the June 2, 1989 edition of USA TODAY.

"Foam cups and plates take thousands of years to break down in landfills. Chlorofluorocarbons, found mainly in refrigerant and auto air conditioners, deplete the ozone and lead to global warming - the greenhouse effect.

"And every two weeks, USA consumers throw away enough glass bottle sna jars to fill the twin towers of New York's World Trade Centre. "Here's what you can do to help:

1. Cut down on your trash. Reuse, repair whenever possible.

2. Use household chemicals completely before tossing their container. Solvents and cleaners in landfills seep into the ground water. Never throw chemicals down the drain; take them to a hazardous waste center (your sanitation department can direct you).

3. Put grass clippings, leaves and vegetable waste into a compost heap.

 Reuse grocery bags abd ask for paper, not plastic. Use mugs, not paper cups cups; rags, not paper towels; cloth, not paper napkins.

5. Use non-toxic automatic dishwashing powder (available at natural food stores) or buy the lowest phosphate detergent available.

6. Use liquid laundry detergents which don't contain phosphates. Prefer powder? Choose no-phoshate brands.*

7. Buy foods packed in

cardboard, not plastic.

8. Recycle newspapers, glass,

Friday, Feb. 16,1990, TAPS will hold a St. Valentine's Day Dance. This dance will be put on by C.S.T., Nursing, Forestry and E.V.H. The theme for the dance will be Party for the dance will be Party for

Party for the Planet

forward to the time when we once again can: walk the beaches and not see any polluting litter or fear what chemical soup we swim in, explore our wilderness area and not worry about their imminent destruction, expose our skin to the warmth of the sun without fear of developing skin

cancer. None of this will be possible if we don't take action and do something about the situation. We all have that right. And we all must exercise it. As our emminent countryman, Maurice Strong, recently said, "What we do or don't do in the next decade will largely set the course... if we don't, we are on the pathway to the demise of the human species".

What you can do starting this month is participate in the new campus recycling initiative. This Environment issue of the Link was assembled to help herald in the new program. Read and learn. Ask questions about anything that you don't understand. But do take part in this activity. With a recycling program finally in place we cannot truly say that this campus is an advanced technological institute.

TIP: Express your thoughts and ideas about the environment by writing letters. Try any of these contacts.

Federal Government: Hon. Lucien Bouchard MP, Minister of Environment

Liberals: Sheila Copps MP, Environment Critic

NDP: Jim Fulton MP, Environment Critic

Reform: Deborah Grey MP, Environment Critic

All four may be reached c/o House of Commons, Ottawa, Ontario, K1A 0A6 (no postage required)

Provincial Government: Hon. John Reynolds MLA, Minister of Environment

NDP: John Cashmore MLA, Environment Critic

Independent: Jack Kempf MLA, Environment Critic

These three may be written c/o Parliament Building, Victoria, B.C. V8V 1X4.

We have more contacts available (MPs, MLAs, environmental organizations) upon request.

Acid rain already in the Rockies

By Cameron Young

"Here, on such a beautiful day in the Colorado Rockies, I hate to be the bearer of such bad news."

That's Bob Yuhnke talking, senior attorney for the U.S. Environmental Defense Fund. His audience is a roomful of U.S. and Canadian environmentalists gathered at the Estes Park convention center outside Denver.

The bad news Yuhnke is bringing them is the spectre of acid rain contaminating the waterways, landscapes and breathing space of western North America.

Acid Rain? Out west? Isn't that strictly an eastern problem?

True, the rain falling on the eatern seaboard can be 30 to 40 times more acidic than unpolluted rain, but the gentle rains that bathe the rainforests of the Pacific Northwest are at least 10 times more acidic than pure rain. And southern California can produce a coastal fog as acidic as lemon juice.

Comments Canadian acid rain activist Martha Kostuch: "Many parts of western North America already are receiving heavy concentrations of acid rain - and much of the landscape is very sensitive to it. We don't know how much more it can take."

Unsafe At Any Breath

But just what is acid rain anyway? And what kind of harm can it do?

One main source of acid rain are the countless industrial plants especially electrical utilities - that burn coal, oil and other sulfercontaining fossil fuels. A second major source are the continent's countless automobile yail pipes. Every year these sources fill the blue American skies with a minimum of 24 million metric tonnes of sulfer dioxide and 21 million metric tonnes of nitrogen oxides. Add to that Canada's contribution of nearly five million metric tonnes of sulfur dioxide and close to two million metric tonnes of nitrogen oxides. About 70 per cent of this total is generated in eastern North America.

These emissions, which take the form of gases and dust particles, combine with oxygen and water vapour to form acids. This chemical concoction can stay airborn for thousands of kilometers, ultimately falling to earth as acid rain, acid snow or acid fog.

Some gases and acidic particles reach the ground without the help of rainfall. This dry deposition is a major factor in acid pollution in the west.

When soil and water becomes too acidic, plant and animal life begin to die. Fish disappear from freshwater lakes and vast tracts of once green forest start to turn brown. Food and drinking water can be contaminated when acid rain reacts with minerals in the soil - or when it corrodes water pipes. Mercury accumulation in fish due to acid rain is a growing public health concern.

Perhaps the most serious impact of acid rain is the damage it can do to the human respiratory system. In the United States, the public health costs from damage to human lungs caused by acid rain may reacg \$16 billion. More dramatic still is one estimate thatacid rain kills as many as 200,000 Americans annually.

The Gathering Storm Out West

Visibility in national parks in the eastern U.S. is down to 10 to 15 kilometers, thanks to an everpresent industrial haze of fine sulfur particles. On most days out west, you can still see as far as 200 kilometers. By the year 2010 however, the number of poor visibility days in national parks will have jumped from an average of nine days each summer to as many as 36 days.

Why? Mainly because sulfate and nitrogen oxide emissions from coal-fired electrical power plants in the 17 western states are expected to double by then, as more and more power plants are built to keep pace with a rapidly growing population.

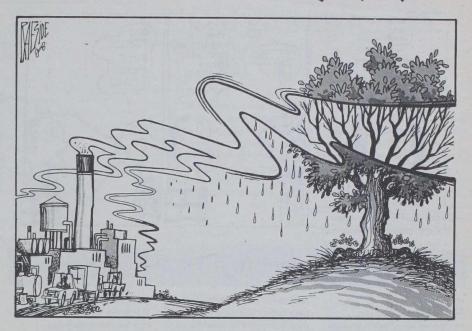
Areas of the western U.S. affected by acid rain today include the Cascade Mountains east of Seattle, the Colrado Rockies, and the Sierra Nevada mountains in California. This is according to a 1985 study by the washington-based World Resources Institute that also highlighted dozens of regions in 11 western states that are especially sensitive to acid rain.

Acid in the rain is a fact of life for much of western Canada, especially in the northwest corner of the province of British Columbia. The highest ratings typically arerecorded in the vicinity of particular pulp mills, smelters and natural gas plants.

Down Remedy Lane

The Canadian government has already agreed to cut sulfur emissions in half in eastern canada by 1994, essentially by installing better emission controls on existing industrial facilities. But there is no acid rain policy for western Canada In the United States, proposed





acid rain legislation may reduce sulfur emission in half by the turn of the century, but only in the eastern states. Environmentalists on both sides of the border are watching closely as Bob Yuhnke and the Environmental Defense Fund lobby Congress to ensure that sulfur emissions in the western United States are not allowed to rise sunstantially to offset emission reduction planed for the east.

Limited sulfur emissions from east to west is just the first step to solving the acid rain problem. The long run solution must lie in the

The bins are in! The SA has now

received its first shipment of bins

of bond, ledger, xerox, newsprint,

departments and 22 computer labs

throughout the Institute. These bins

will be installed during the last week

There are two types of bins, the first

is a tall, thin, grey 33 gallon open

for areas in which space is at a

plastic container which will be used

premium, and two, is a tall, reusable,

bag made of woven polypropelene

which will be used in all other areas

recycling program. The bags will be

Association staff and departmental

monitors will monitor the bins daily,

and will collect the paper for sale to

Proceeds from the sale of the paper

will be used to cover the cost of the

educational materials associated with

the start-up of the recycling program.

departments involved in recycling will

be given an honorarium for their part

bins, and of all promotional and

Once initial costs are recovered,

in the collection process.

involved in Phase I of the paper

mounted on free-standing steel

Work study students, Student

an outside recycling company.

computer paper from over 17

which will be used to collect all types

By Anna-Lisa Jones

in January.

holders.

efficient use of alternative, nonpolluting sources of energy. It will also require a fair degree of international cooperation, as acid rain flows freely across international boundaries.

In fact, the Colorado conference was a first attempt at linking environmentalists from western Canada and the United States over the acid rain issue. the gathering was the brain child of a Canadian-based environmental organization called, perhaps somewhat optimistically, the Canada/U.S. Acid Rain Partnership (CUSRAP). Concludes CUSRAP head Martha Kostuch: "We are convinced that acid rainis a problem that requires our combined urgent attention, before the forests, lakes and public health of western North Amercica begin to suffer devastating impacts".

For more information on the Canada/U.S. Acid Rain Partnership, write: Canadian Environmental network, PO Box 1289, Station B, Ottawa, Ontario, K1P 5R3.

S.A. Recycling Program

The following materials will not be accepted:

- o ditto and multilith masters o padded and self-seal
- envelopes o carbonless duplicating
- forms
- o plastic impregnated paper
- o plastics of any sort o paper towels and cups
- o strings
- o carbon paper
- o food wrappings
- o styrofoam cups

If you have any other materials either from the school or from home which you,would like to recycle, ie: books, please contact the Student Association, and we will either arrange to have them picked-up, or will suggest an alternate Recycling Company/Depot who specializes in the collection of that particular material

Show your commitment to the Environment and to the Student Association's Recycling Program, by making an effort to place your waste paper in the Recycling bins.

Campus coalition to tackle Globe 90

By Duff Gardner

Globe '90 is a Trade Fair and conference designated to promote environmentally sustainable economic development and the business opportunities for the environment industry it represents. This Trade Fair will run March 19-23, 1990.

BCIT has successfully organized the "Campus Coalition on Recycling", a new committee with representation from 14 lower mainland colleges. Anna Lisa Jones, Support Programs Coordinator is the chairperson of this committee. This committee, representing various departments from the 14 colleges will exhibit at Globe 90. This committee will meet at 2 p.m. February 2, 1990 in the Administration Boardroom to discuss the format of its Globe '90 booth. Interested attendees should contact Anna Lisa Jones (432-8549) or Duff Gardner (432-8491) before Feb. 2.

the link, january 24, 1990



Incinerator not so efficient

By Anna-Lisa Jones

With all this talk about our overflowing and unsightly landfills, "incineration" of our garbage has grown in popularity. Why not incineration helps to reduce the like another 20th century "instant" solution

The Municipality did not waste time examining the long term effects of incineration, rather they jumped in by building a 75 million dollar waste burning facility. The facility was toted one which is lined with clay and as "environmentally safe" due to the large expense incurred in installing complex pollution control systems. However, last year, after more study, there was question as to whether the ash produced by incineration could be declared as "hazardous waste". Much of the hazard lies in the formation of dioxins in the incineration process. Dioxins have

been shown to promote cancer, cause return for the investment dollar. birth defects, and negatively affect the If, however, we want to find a long reproductive and immune systems in animals, not to mention the fact that they contribute to acid rain. Even with the high-tech controls, dioxins volume of waste by over 80% - sounds are an integral component of the over 65 tons of fly ash produced per year by the Burnaby Mass Burn Incinerator.

> If the ash is declared "hazardous", it must be taken to a "secure" landfill; where the ash can be layered in between concrete. This process is very costly and does not guarantee that dioxins will not leach into the soil recycling programs throughout the or into the air.

Incineration is far from being the "modern solution" to landfill, in fact, it contributes more to environmental pollution than it relieves it. Clearly the incinerator does not have a high

term solution to our waste management crisis, we must look at reducing the amount of waste by recycling, and by reducing production of "disposable" goods. Just think what 75 million could do for the recycling industry; think of how many jobs this could have created; think of the economic impact; think of the impact on society's values - a clear statement that the "disposable society" has been replaced by the recycling society.

The GVRD is launching numerous Lower Mainland. I am not quite sure what this means -are we in transition to a more pro-active, long-term waste crisis solution, or just diverting focus away from the 75 million dollar disaster?

Paper recycling: the how and why

By Mike McKeever

Like all raw materials, waste papers have certain gradings and specifications which must be met in order to qualify for recycling. The Paper Stock Institute of America has identified some 40 different grades of waste paper, plus a further 30 specialty grades. This grading process has been adopted by recyclers as industry standards.

Each grade of waste paper has a particular end use or application depending on the type of fibre it is made up of. These fibres are classified by type depending on the process originally used to convert the tree, log or chips to pulp. Only two processes are used - mechanical or chemical.

The mechanical process consists of simply grinding the wood into a pulp know as groundwood. Groundwood is used in the making of newspapers, directories (telephone books), some magazines, advertising flyers, packing paper, some teletype papers, som stationery, and a host of other products. Groundwood paper is used in the mainframe printers on campus.

The chemical process consists of adding chemicals to woodchips and cooking them in digesters to dissolve the glue or lignin which holds the fibres together. With the lignin removed the fibres separate producing a brown pulp. This chemical pulp has longer fibres than are produced by the mechanical process

These longer fibres produce very strong sheets of brown kraft paper which are used to make bags wrapping apper, corrugated shipping cases, etc. This brown pulp can also be bleached to a bright white pulp

which is then used in the manufacture of stationery papers, computer print-out paper, business forms, tissue papers, book paper, and many other products.

Bleached pulps are often dyed to produce colored products. These dyes must be removed by chemical de-inking before the paper can be recycled. Some colors such as goldenrod and bright flourescents, do not respond well to the de-inking process and are therefore not acceptable for recycling programs.

Magazines are another material which are not normally acceptable for recycling for three reasons. One, is the heavy amount of clay used in magazines which must be disposed of at the recycling mill, creating an effluent problem. Secondly, the high loss of material when recycling due to the short fibre length. This fibre loss also contributes to the effuent problem. Thirdly, most magazines are printed with "heat-set" inks which are very difficult and expensive to remove.

Unsuitable paper products

Some paper products not suitable for recycling because they contain or are coated with other materials that make recycling impossible. Examples include:

Phone books - hot melt latex glue is used in the binding Corrugated shipping cases - wax

or poly coating Milk cartons - plastic coating Food cartons - poly or foil lined Envelopes with windows - plastic

Magazines - heavy coatings, fibre mixtures that cause effluent

problems

Business forms - those using carbon sheets

Over packaging means over pollution

By Anna-Lisa Jones

So what are we putting into landfill? According to John Hanson, executive director of the Recycling Council of Ontario, 50% of our garbage is packaging. This is not surprising when the marketers still expect that consumers will buy the product which "looks" most appealing. I do not deny the appeal of using packaging as a marketing tool, but in the future, part of the consumers' perception of the company and the brand will be determined by the method of packaging the company uses, and by the "environmental" quality of the product itself.

The four top choices for packaging, glass, paperboard, aluminum and steel, are the least harmful to the environment in terms of emmissions of toxic waste during production and disposal. In addition, these materials can be recycled which not only conserves raw material resources, but also saves energy in re-production

Plastics are one of the most common materials used in packaging, due, in part, to its versatility and its ability to be produced at a low cost. Plastics account for seven per cent of our

garbage by weight, but a whopping 25 per cent by volume, and estimates of their life span range between 100 and 400 years. Plastics are the most common culprit in terms of toxic emmissions and in terms of ozonedestroying CFC's. If the cost of toxic clean-up were taken into account in the price of plastics, they would clearly be the most expensive method of packaging. If, however, we produce containers which will be reused, then plastic still may be a viable packaging option. So what is the answer? In what direction do we move in terms of

packaging our consumer goods? One solution for soft drinks, juices, wine and beer are refillable glass containers. Another is to package goods in local regional packaging plants, using materials which can be returned the plant after use, for example, plastic trays for meat products. In both instances, products can be shipped in bulk which will reduce the cost of transport, in addtion to reducing the risk of wasteage from breakage of individual containers.

By continually recycling containers, the energy used in the production of

the containers will be spread out over the lifetime of the product, making it very energy efficient as well as being efficient use of resource materials used in making the containers. Also, by employing refillable containers, marketers will be enforcing brand loyalty while maintaining a good corporate image for their part in attempting to reduce packaging wasteage.

If you find that the products you normally buy are "over-packaged" or packaged in an environmentallyunfriendly materials, write to the manufacturer of that product. Take Action! Don't just switch to another brand - we need to encourage change -and you, as the consumer, have the power to influence that change! On page 8 is a chart which can serve as a guide for you in making environmentally conscious decisions in choosing what you buy by how it is packaged. The relative benefits and side effects of using various packing methods are outlined.

(Source: "PACKAGE POLLUTION Shop and think. There's nothing throwaway about garbage" by Jo Currie Pollution Probe)

Environment Week February 14, 15 & 16

By Anna-Lisa Jones

The Environment Week is designed to create awareness not only of the issues surrounding our Global crisis, but to get students involved in addressing how the future of technology and business in the '90s will be focused on the Environment

Wednesday, February 14: Student Projects Day

Program Heads from each school are being contacted in terms of having their students put together a technology-related project concerning the Environment. It is suggested that students use this display as part of their Open House display, as the issue of the Environment is clearly 'Challenging the Future Today!'

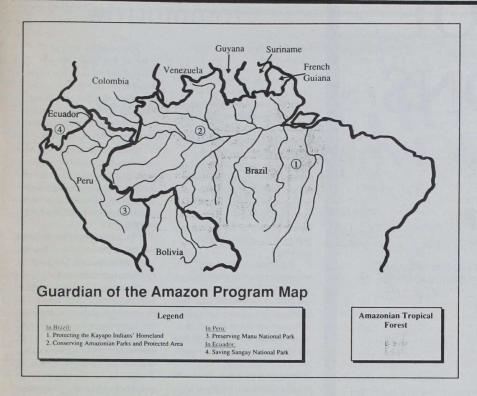
Thursday, February 15: Environmental Lobby Groups Action-oriented groups, such as SPEC (Society Promoting

Environmental Conservation) and the **Environmentally Sound Packaging** Coalition will be on hand to show you how their group is having an impact on the Environment, and what plans they have for further action.

Friday, February 16: Recycling and Resource Recovery

The GVRD and local recycling companies will display what their organization's are about, how and what they recycle, and what their plans are for future growth. In addition, one or two Resource Recovery companies will be on hand to describe how they make new products from waste.

Each day is filled with many educational displays-so take advantage-learn about the "Green Scene" and what the future holds.



Guardians of the Amazon

By Don Wright

The plight of the world's tropical rainforests has been heavily publicized, and by now, we know too well the global implications of destroying the rainforests. We know the burning of the rainforest is burning a hole in the ozone layer and changing global climate patterns; we know the systematic destruction of the rainforests are driving horrendous numbers of plant and animal species to extinction; and we know that many native cultures are also being destroyed in the process.

The World Wildlife Fund Canada has been working to protect the tropical rainforests in Central and South America through innovative rainforest protection projects. In 1986, WWF and the Jaguar Car Companies invested \$100,000 in "Project Jaguar" to establish the world's first Jaguar Reserve in Belize saving over 100,000 acres for the Jaguar.

In 1987/88, nearly 6,000 Canadians purchased 20,000 acres of forest in the Monteverde Nature Reserve in Costa Rica. The \$500,000 contributed to WWF by these Canadians grew to over \$2 million as a result of a "debt-for-nature" swap with the Costa Rican Government. In 1988/89, over 10,000

Canadians protected 40,000 acres of rainforest in Latin America in just 12 months. This was WWF's Guardian of the Rainforest program with spectacular results, with over \$1 million raised to protect rainforest. 32 projects were funded including reserves in Mexico, Guatemala, Belize, Honduras, Panama, Columbia and Paraguay.

In addition to establishing reserves, in 1989 WWF helped the Kayapo Indians co-ordinate a successful camapign to discourage the World bank from approving a acres of tropical forest in Amazon. WWF Canada's current campaign is aimed at protecting the

loan which endangered 60 million



Amazon through over 200 projects. According to WWF Canada, the plants, animals and people of the Amazon Forest are in desperate trouble. their forest home is disappearing at the astounding rate of 50 acres per minute. If the present rate of destruction is not reversed, it is estimated that by the year 2000 one wildlife species will become extinct every hour.

To save the Amazon, WWF is helping nine Amazonian nations strengthen their conservation programs, including saving endangered species and important natural areas, promoting environmental education, tackling the foreign debt burden, and

Recycling depot

The Corporation of the District of Burnaby operates the Stride Avenue Interim Recycling Depot. Newspaper, glass, alumninum or tin cans, waste motor oil, mixed paper, and pastics can be recycled. For further information, call the Burnaby Engineering Department at 294-7210. The depot is located on Stride Avenue (just north of Marine Drive) and operates from 8:30 a.m. to 3:30 p.m. (closed holidays). avoiding unsound foreign aid proposals. WWF needs over \$3 million every year to fund these programs.

To raise the money, WWF Canada established the "Guardian of the Amazon" campaign. Every \$25 donated to the campaign protects one acre of tropical forest habitat in the Amazon. All Guardians making a \$25 or more

donation receive a special certificate, decal and action checklist, as well as information on a number of specific Amazon program projects.

For more information on the program, or to make a donation, write to the World Wildlife Fund, 60 St. Clair Avenue East, Suite 201, Toronto, Ontario, M4T 1N5. To protect acres by phone with a Visa or MasterCard, call 1-800-387-8600.

By the way, Guardian of the Amazon certificates make great gifts - they come blank, so puchasers can fill in the name of their choice.

Other Canadian organizations committed to halting rainforest destructions include Friends of the Earth, Sute 701, 251 Laurier Avenue West, Ottawa, Ontario, K1P 5J6 and Probe International, 100 College Street, Sixth Floor, Toronto, Ontario M5G 1L5.



the link, january 24, 1990

Old growth forests: an explanation

With efforts to preserve the Carmanah and Stein Valleys as old growth forest at the forefront of the environmental movement, it is very important that we undertsand the nature of these ancient stands. Mark Angelo presented this material to a workshop on Vancouver Island last November.

By Mark Angelo

1. Definition of Old Growth Old growth is a forest that has developed over a long period without being subjected to any significant natural or man-caused disturbance. These stands include large trees as well as large snags. Large fallen trees on land and/or in streams are also a common feature.

On the coast, old growth can be as young as 200 to 150 years old while in the interior, a forest mighth be considered as old growth at only 150 years of age (or younger).

The composition of old growth is generally different from that of younger forests. While specific structural attributes vary according to the forest type and location, older stands tend to have a larger range in tree sizes and a greater variation in tree spacing. Another point to emphasize is that old growth forests are often climax forests but they also exist in sub-climatic or successful stages.

2. Social, Economic and Environmental Values of Old Growth

There are many inherent values in old growth forests. From a social perspective, an old growth environment is an attractive setting for many types of recreational and/or educational activities.

Where old growth still exists in commercial forests, such stands continue to be important economically over the next 30 to 40 years as a source of timber. Economic values associated with old growth timber however are not limited to timber extraction in that tourism and recreational values associated with old growth are becomingly increasingly more significant.

Finally, there are many environmental or ecological values associated with old growth. For example, various plant and animal species are partially or totally dependent on such environments. Old growth forests can also be important as gene-pools and benchmarks.

3. Management of Old Growth We should strive to obtain a balance between timber extraction and the preservation of old growth in each biogeoclimatic zone. We still have outstanding examples of old growth forests in many regions but the opportunities to preserve such areas are rapidly diminishing. Consequently, it is important that a process be developed that will enable the general public, interested user groups and individuals with applicable expertise to participate with government and industry in developing appropriate management plans for this resource.

Such plans will, in all likelihood, attempt to identify and preserve key representative stands of ancient forest. This will no doubt lead to great debate as to how much area should by protected in each individual case so as to ensure that the integrity of the old growth forest is protected over time. Estimates in the literature vary. Some have suggested 150 to 500 hectares as a minimum if most plants and animals associated with old growth are to be preserved. This is also somewhat dependent on the stream order and species present.

However, for smaller order streams, the protection of entire drainage basins is the most preferred alternative for protecting old growth from an ecological perspective. This would ensure the establishment of natural topographic boundaries and provide maximum protection from withdraw (in excess of what might occur naturally) and other external influences. This approach would also better protect the plant and animal diversity of the forest than would an isolated stand of similar size.

In addition to preserving and perpetuating representative examples of existing old growth, the Minister of Forests could also manage selected young stands with the intention of developing future old growth. While this would require early thinnings and long rotations, an old-growth objective on some sites is worth considering. The development of such stands could complement the preservation of exisiting ancient forests and they could be particularly important in areas where old growth has already been largely depleted or eliminated.

Finally, there should be an effort to assess how forest age-classes will change over the next several decades. This information could then be combined with expectations relating to timber extraction and losses due to natural mortality. This information would then allow managers to predict how old growth ecosystems may change over time.



NOTICE OF ELECTIONS

BCIT Student Association

Nominations Open February 1, 1990 Nominations Close March 2, 1990 (at 1 p.m.)

Nomination Forms, available at the S.A. General Office Located in the SAC, must be submitted to Dennis Wilson, V.P. Finance and Administration, through the S.A. General Office.

Positions up for Election:

President

One Vice President for each of: Finance & Administration Public Relations & Marketing Student Affairs

One Chairperson for each of: Health Sciences Division Engineering Division Business Division Recreation & Athletics

Date of elections: MARCH 28 & 29 (polls open 10 - 4) MARCH 30 (polls open 9 - 12)

Location of polls: SAC Racquetcourts Lobby (near Rec Services)

ANNUAL GENERAL MEETING and OPEN FORUM Wednesday, March 21, 1990 at 11:30 a.m. in TAPS

A fable for tommorrow

From Silent Spring, by Rachel Carson, 1962

"There was once a town in the heart of America where all life seemed to live in harmony with its surroundings. The town lay in the midst of a checkerboard of prosperous farms, with fields of grain and hillsides of orchards where, in spring, white clouds of bloom drifted above the blaze of colour that flamed and flickered across a backdrop of pines. Then foxes barked in the hills and deer silently crossed the fields, half hidden in the mists of the fall mornings.

"Along the roads, laurel, viburnum and alder, great ferns and wildflowers delighted the traveller's eye through much of the year. Even in winter the roadside were places of beauty, where countless birds came to feed on the berries and on the seed heads of the dried weeds rising above the snow. The countryside was, in fact, famous for the abundance and variety of it's' life, and when the flood of migrants was pouring through in spring and fall people travelled from great distances to observe them. Others came to fish the streams, which flowed clear and cold out of the hills and contained steady pools where trout lay. So it had been from the days many years ago when the first settlers raised their houses, sank their wells, and built their barns.

"Then a strange blight crept over the area and everything began to change. Some evil spell had settled on the community: mysterious maladies swept the flocks of chickens; the cattle and sheep sickened and died. Everywhere was a shadow of death. The farmers spoke of much illness among their families. In the town the doctors had become more and more puzzled by new kinds of sickness appearing among their patients. There had been several sudden and unexplained deaths, not only among adults but even among children, who would be stricken suddenly while at play and die within a few hours.

There was a strange stillness. the birds, for example - where had they gone? Many people spoke of them, puzzled and disturbed. The feeding stations in the backyards were deserted. The few birds seen anywhere were moribund; they trembled violently and could not fly. It was spring without voices. On the mornings that had once throbbed with the dawn chorus of robins, catbirds, doves, jays, wrens, and scores of other bird voices there was now no sound; only silence lay over the fields and woods and marsh

"On the farms the hens brooded, but no chicks hatched. The farmers complained that they were unable to raise any pigs - the litters were small and the young survived only a few days. The apple trees were coming into bloom but no bees droned among the blossoms, so there was no pollination and there would be no fruit. "The roadsides, once so attractive, were now lined with browned and withered vegetation as though swept by fire. These, too, were silent, deserted by all living things. Even the streams were now lifeless. Anglers no longer visited them, for all the fish had died.

"In the gutters under the eaves and between the shingles of the roofs, a white granular powder still showed a few patches; some weeks before it had fallen like snow upon the roofs and the lawns, the fields and streams.

"No witchcraft, no enemy action had silenced the rebirth of new life in the stricken world. The people had done it to themselves.

"This town does not actually exist, but it might easily have a thousand counterparts in America and elsewhere in the world. I know of no community that has experienced all the misfortunes I describe. Yet every one of these disasters has actually happened somewhere, and many communities have already suffered a substantial number of them. A grim spectre has crept upon us almost unnoticed, and this imagined tragedy may easily become a stark reality we all shall know.

"What has already silenced the voices of spring in countless towns in America? This book is an attempt to explain."

Laurier U gets into recycling

Canadian University Press WATERLOO

Wilfred Laurier University students may soon be able to recycle on campus.

Administration, student council and faculty have created a 'Recycling Committee' to develop a program that could be in place by early 1990.

Physical Plant director Wes Robinson's proposed program would put bins put in every office on campus to collect 'fine' paper (everything but newsprint).

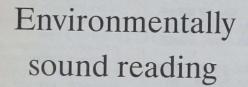
While the committee hasn't approved it, Robinson said it will get a go-ahead in the next few weeks.

Laurier's student council also has plans to recycle cans, bottles and newsprint. Heidi Kostenbauer, chair of the council's recycling committee plans to set up collection bins in three campus locations.

Some professors said they were concerned that recycling might divulge confidential documents, but the university may buy shredding machines to ensure get around this.

The university will pay start-up costs, but expects in the long term to save money from reduced waste disposal costs.

The student council hopes to get government grants to cover some of its costs.



Book Reviews By Jack Norie

"Every environmentally sound product and service you ever wanted to use but didn't know where to find - a shopper's guide by S.P.E.C." Available from SPEC at 2150 Maple St., Vancouver, B.C. V6J 3T3, 736-SPEC. Price \$5.00.

Have you ever heard of an environmentally friendly product in the media and then wondered how you can find it? Very likely this guide produced by SPEC can lead you to it. This soft-cover, 35-page publication could more accurately be called a directory. It lists 52 product categories from A to Z including All-purpose Cleaners phosphate-free, biodegradable", "Haircolour - natural", and Produce - organic". After each category it then lists in alphabetic order the names of stores where the product can be purchased. The guide focuses mostly on the lower mainland, so out-of-towners probably won't get as much out of it as the locals. I'm not sure if this is the first guide SPEC has produced, but one would think so judging by its brevity. 52 product categories is but a small fraction of the things we buy regularly. I question the importance of having a section on Inks - natural" when they omitted sections on recycled oil or second-hand lumber. It would also be better if they included an index at the back of the book which would make it easier to find specific items. Nevertheless, this is still a book worth picking up. It's a good investment of your \$5.00.

"The Canadian Green Consumer Guide - How YOU Can Help"

By Pollution Probe Foundation. McClelland & Stewart Books. Price \$14.95.

From the brief guide by SPEC we move to the comprehensive guide by Pollution Probe. At 164 pages this book covers a very wide range of topics. Examples of the more unusual are: organic wine list, what the Energuide label on your fridee really means, the most

environmentally friendly household batteries (not what you might think), effective and biologically safe bug repellent - bug soup (pureed slugs, etc.), film developing stores that are environmentally aware. It's arranged quite different to SPEC's guide. It covers probably twice as many topics (listed in the index). And it is divided into the following major groupings: Costing the Earth, Food and Drink, Cleaners, Clothing and Toiletries, The Home, Gardening, Waste Management,

Transportation, Working and Investing, and Travel and Leisure.

It's interesting that I was asked to do this review because I noticed this book on the shelf for the first time two weeks ago. It was in prominent display in the Real Canadian Superstore. On first glance I decided I didn't want anything to do with it for two reasons. First, the book appeared to be printed on non-recyclable, glossy material. It isn't, though, and the process that was used is explained within. Second, the word "Green" on the Consumer's Guide in the green and red colour scheme closely resembles the "Green" line of environmentally friendly products produced by the Real Canadian Superstore itself.

Perhaps this is no coincidence. If it was deliberate, then I feel they've made a mistake! Probe has already gotten into enough hot water over endorsing Loblaw's (Superstore's) products last year. You might recall that the Director was forced to quit over the issue. The next guide that they release should be formatted differently in my opinion. Generally speaking, I do not support large corporations' attempts to "cash in" on the new environmental awareness in our society. At first glance what I saw appeared to be promotional material for the store's own products. However they do make the too frequent recommendation that a particular product is available at Loblaw's.

I can think of at least two things that were missed. They neglected to explain the specific steps one should take when cleaning up after painting. And they say that batteries should be "properly disposed of" but they don't suggest how.

These few shortcomings notwithstanding, this publication is probably the most thorough and informative single document I have seen on this topic. At \$14.95, this is an easy-to-read reference guide that should be in everyone's library.

What is the WCWC?

By Adrian de Groot

The Western Canada Wilderness Committee is a society that was formed in 1980 and has set out to achieve three main goals: 1. to educate the public

concerning Canada's wilderness heritage and the reasons for preserving representative areas for future generations,

2. to conduct research concerning wilderness values, 3. to obtain and distribute information on areas in Western Canada which have potential for protective Wilderness status.

The main methods used by WCWC to educate the public about wilderness areas is by publishing books, such as the highly acclaimed "Stein - The Way of the River," and "Carmanah - Artistic Visions of an Ancient Rainforest," a beautiful book released in November 1989 and was on the B.C. bestseller booklist for a month. Two calendars were also produced with superb photos of national areas of concern.

In 1988 WCWC won a landmark court battle with MacMillan Bloedel that guarantees public access to land that M.B. held as Tree Farm Licences. The court battle started with M.B. attempting to block volunteers from building a hiking trail into the Carmanah Valley. The court refused to uphold the injunction resulting in the volunteers completing the trail through the Carmanah right through to the tallest ever recorded Sitka Spruce.

WCWC does not condone illegal activites by its members, including civil disobedience as a form of public protest, on the issues it takes underwing. They believe that awareness through education is the vital first step towards protecting our environment. Nor does the group wish to see an end to logging. The goal is to encourage development of a plan for sensible management of our forests.

The local office of the WCWC is located at 20 Water Street in Gastown. The front of the office is the Wilderness Store where they have a wide selection of oublications, cards, recycled paper products and meaningful t-shirts.

The group is always interested in getting more members and volunteers. If you would like more information contact them by mail at the Gastown address in vancouver, VOR 2Z0, or phone 683-8220. Your \$25 individual membership qualifies you for receipt of numerous newsletters and publications throughout the year. This is an excellent way to make an investment towards the future of our natural heritage.

the link, january 24, 1990

Stop dumping in the oceans

By Zeljko Trevaca

THE CANADIAN SIL 75

GREEN

ONSUMER GU

Responsible

won't cost

the earth.

shopping that

HOW YOU CAN HELP

Our oceans are not a bottomless garbage can. Yet we still keep on dumping massive amounts of harmful waste into them. We seem to think that garbage will just go away. Well it doesn't just go away. And it is starting to show.

In the last little while we have had to close large areas of the ocean to all fishing, only because the fish are being poisoned from all the junk we dump into the water. To me, this is a pretty clear sign we are doing something wrong.

We have let this go on about as long as we can. We have to clean up our act, now. As individuals we can make a difference. As a group, we

GLASS:

All bottles, jars, and containers made of clear, green, or brown glass

Rinse out with cold water (save energy).

Discard caps, corks, lids. and neckrings.

TIP: When you have oily or sticky containers from salad dressing, mayonnaise, etc., just fill them with cold water, soak and rinse.

Sorry, we can't recycle window panes, mirrors, ceramics, car windows, and blue or milk-white glass.



Every Environmentally Sound Product and Service You Ever Wanted To Use But Didn't Know Where To Find

A Shopper's Guide by S.P.E.C.



can do even more

Now!

For example, next time you go

out on the water in a boat or just go

garbage into the water. Trust me, it

As a group we can do even

more. We have to get the message

big companies who dump garbage

into our water. They have to stop.

It has been said before, but,

write letters to our government. The

way I see it, if we are going to get

something done, we all have to get

something, the greater the chance of

involved. The more of us that say

getting the job done.

across to our government, and to the

to the beach, don't throw your

will make a big difference.

70 WAYS TO SAVE E ENVIRONM

Here are some of the things you can dc to clean up your act for a better world:

Buy organically grown produce.
 Keep a compost pile.

3. Hold a garage sale to recycle old possessions.

- Give old clothes to charity.
 Return coat hangers to the cleaners.
- 6. Recycle paper, bottles and cans.
- 7. Urge your local council to start or

expand recycling programs for garbage.

8. Don't buy over-packaged foods. 9. Tell your supermarket manager you won't buy over-packaged products and

write the chain with the same message. 10. Use cloth, not disposable, diapers

10. Use cloth, not disposable, diapers.
11. Take paper or plastic bags to the supermarket for your groceries.
12. Use unleaded gasoline.
13. Use a timer or programmable thermostat on your furnace, so the heat can be turned down during the day or night.

14. Take fewer, cooler and shorter baths showers. 15. Use companion planting in your gar-01

den, rather than pesticides. For more infor-mation, write to the Ecological Agriculture Project, Box 191, Macdonald College, Ste-Anne de Bellevue, Que., H9C 1CO.

16. Use your dishwasher only when it's full and keep it on the energy-saver cycle. Wash large dishes and pots by hand.

17. Don't use disposable dishes and utensils

18. Buy energy-efficient appliances and automobiles.

19. Install double-glazed windows at home

20. Lower the temperature of your hotwater tank.

21. Turn the water off while brushing your teeth.

MATERIAL

22. Install energy-effic ent glass doors on your fireplace and limit its use.

23. Switch your head is system from on to gas, electricity or solvr.
24. Use natural fertilizer for gardening.
25. Hand-pick dand fions and weeds instead of using chemical weed killers.

26. Plant a tree, a shrub and lots of flow

- ers 27. Don't destroy trees or shrubs.

 Don't destroy trees or similas.
 Use cloth, not paj er napkins.
 Hang clothes up to dry.
 Ride your bike or walk.
 Use biodegradable garbage bags.
 Use bug-repellent andles rather than chemical coils or spray nsecticides.
 Use a live Christmas tree, then plant time it

34. Organize a carpool.

35. Reuse glass or plastic containers to store leftovers.

36. Use a lunch box or reusable cloth ag for lunches.

37. Replace loose seal; and faulty-valves

37. Replace loose seal; and faulty-valves on your toilet.
38. Wash most clothing in cold water.
39. Put a spray nozzle on the garden hose to save water.
40. Stop using electric can-openers and coffee grinders and do the work by hand.
41. Use garbage cans, not plastic bags.
42. Turn off lights, heaters and fans when they're not needed.
43. Ride the bus.
44. Use cloth towels, not paper towels.

RESOURCES USED ENERGY USED REUSABLE?

43. Ride the bus.
44. Use cloth towels, not paper towels.
45. Don't use plastic straws.
46. Ask everyone at the office or school to bring his or her own mug.
47. Reuse envelopes.
48. Keep your automot ile in good repair, especially its exhaust system.
49. Use both sides of writing paper.
50. Patronize only those fast-food outlets that use paper recyclable containers. that use paper, recyclable containers.

RECYCLABLE?

BIODEGRADABLE?

BE PACKAGE-SMART WHEN YOU SHOP

51. Use rechargeable batteries

52. Buy soft drinks in returnable bottles 23. Switch your heating system from oll or recyclable cans. gas, electricity or solar. 53. Avoid plastic-coated drink boxes. Use

a thermos bottle instead.
54. Use energy-efficient light bulbs.
55. Put a tank dam in your toilet to conserve water with each flush.

56. Keep your furnace in good working order and replace filters regularly. 57. Use cosmetics with natural ingre-

dients 58. Make furniture polish by mixing 1½ teaspoons of lemon oil with one litre of min-

al or vegetable oil. 59. Make an all-purpose cleaner with 100 millilitres of ammonia, 100 ml white vinegar, 50 ml baking soda and two litres of water.

60. Buy eggs in cardboard cartons and recycle them for children's crafts.

61. Double-check labels on spray cans to ensure they don't contain ozone-destroying CFCs in the propellent.

62. Stoop and scoop for your pet and flush droppings down the toilet.
63. Seal home doors and windows.
64. Use every drop of paint, shoe polish

and toxic cleaner to ensure the stuff doesn't wind up in the dump; or pour paint remnants into one can, clean the other cans

65. Ensure your home is well insulated.
66. Choose house plants, such as the spider plant, which absorb airborne toxins.

der plant, which absorb arborne toxins. 67. Choose wall and floor coverings and furniture made from natural products. Par-ticle board and plastic emit toxic gases. 68. Use ant and roach traps instead of chemical sprays, or switch to a natural insecticide like diatomaceous earth.

69. Encourage your school board to teach environmental studies. 70. Start a local environmental group

REMARKS

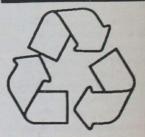
appeared in a variety of publications, is a good guide to start you off doing simple things to help the environment. However, we would like to suggest a few

"5. Return coat hangers to the cleaners." While it is indeed a noble idea to get a second life out of the lowly hanger, one of the kinder things you can do for our environment is not to buy clothing items that require the services of the dry cleaners. The chemicals used in the dry cleaning process are extremely toxic. A recent media review proved that the majority of dry cleaning establishments do not dispose of these toxics safely. Indeed, we must question if there really is a safe storage or disposal of this type of item.

"31. Use biodegradable garbage bags." Please use a paper product and not the so-called "biodegradable plastic" bags. These plastic bags do indeed break down, but they break down releasing various unknown toxins into our dumpsites. Our recommendation is to stick to paper until we know more.

"57. Use cosmetics with natural ingredients." And may we add, preferably those that have not been tested on animals. Many creatures are subjected to untold pain and disfiguration so products can state they've been tested. The truth is that while something may be harmful to a rabbit or a mouse, it may not be harmful to humans, and the converse also holds true.

"61. Double-check labels on spray cans to ensure they don't contain ozone-destroying CFCs in the propellent." Safer yet, use a pump-style spray and avoid any propellent whatsoever. There is still controversy as to the safety of a number of propellents whether they are ozone-depleting or not.



Named after German mathematician August Mobius, who died in 1868, the Mobius Loop is the recycling symbol used by many

government, industry and public sector organizations across North America

Mobius was one of the discoverers of the Mobius Strip which demonstrates an infinite or endless surface and symbolizes the endless use and re-use of materials.

The three arrows refer to solids, liquids and gasses, the three kinds of recyclable substances.

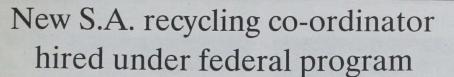
glass	sand, limestone, soda ash	high (heat energy)	yes	savings over glass from new material	no	weight and shape make it energy-expensive to transport
paperboard, cardboard	trees (a renewable but dwindling resource) and chemicals	 high for new paper low for recycled paper 	not usually	yes but limited — must be mixed with new material	yes	not necessarily benign in environment may contain dyes, bleaches and other hazardous chemicals
aluminum cans	aluminum (scarce, expensive to mine)	very high	no	yes - 95% energy savings over new materials	no	smelting operations are a source of air pollution, acid rain
steel ("tin") cans	Iron and tin ores	high	some home reuse only	yes - 74% energy savings over new materials	eventually (10-20 yrs or more)	smelting operations create pollution lead seam sealer can contaminate food
polystyrene foam	petrochemicals and additives (CFCs or substitute)	low	no	no	no	may contain ozone-destroying CFCs major source of litter high volume in landfill sites
hard plastic (PET, HDPE, PP or PVC) bottles, tubs, jars	petrochemicals and additives	low	some home reuse only	yes once (very little currently recycled)	no	may emit toxic chemicals during production and disposal
Plastic (usually LDPE) shopping and garbage bags	petrochemicals and additives	low	home reuse only .	in theory only	no	may emit toxic chemicals during production and disposal
plastic-coated cardboard - milk cartons	trees, chemicals and petrochemicals	high	no	no	eventually (longer than uncoated paper)	recent studies show trace amounts of dioxins and furans in milk cartons
laminates — "tetra pak" juice cartons, micro- waveable containers	 variety of resources paper, plastic and aluminum 	high	no	no	no.	not recyclable due to mixed materials

· not recyclable due to nixed materials
 often used for overpackaging nicals (plastic 00 medium to high no blister packaging and trees (paper) may contain ozone-destroying CFCs • usually a prime example of overpackaging no no no high aerosol containers steel and plastic



By Jack & Susan Norie The list to the left, which has

modifications to the list:



By Gavin Davidson

The feasibility study for a recycling program at BCIT began in December 1988 as partial requirement for a course I completed here entitled 333 simple steps to the preparation of a business plan.

The hope was to develop an economically viable collection program for the purposes of recycling. Aluminum and paper were quickly identified as valuable commodities that could be diverted from the waste stream. Paper, for example, is worth \$65/tonne and makes approximately 70 per cent of our waste stream.

So, after much hard work and doctoring of projected income statement, it was established that, when fully developed, the BCIT collection program could earn, in combined profit and savings, approximately \$10,000 annually. Further, it was projected that 231 tonnes of paper and aluminum would be diverted from the waste stream each year.

Armed with these encouraging figures, Anna-Lisa Jones, programs co-ordinator for the Student Association, has since found support and funding for the program from BCIT and the federal government, through the Environmental Partners Fund. The fund was set up to help local groups (ie service clubs, community environmental groups and schools and youth groups) take action in protecting, preserving, enhancing and restoring the environment at the community level. The total program is worth \$50 million, spread over the next five years. The maximum that one may apply for is \$200,000 over a three year period, and the federal contribution is limited to 50 per cent of the project cost. The project being implemented at BCIT is receiving \$9,700 from the fund, with

through Work Study and the Student Association. The money will pay for paper and aluminum receptacles, promotional material, wages for several Work Study students and

the matching amount coming

last, but fortunately not quite least, some money for me, your new Recycling Co-ordinator.

My job is to walk softly around campus, carrying a big stick, administering disciplinary action to those who do not put the right paper into the right bin. So in order to avoid a thrashing, please remember, high grade computer paper and bond paper in one bin, newsprint alone in the other (and that includes the Link as well as computer paper from the main frame), and aluminum in the mechanical reverse vending machines.

Because only a few aluminum receptacles, we ask that you carry your containers to the nearest receptacle, rather than simply tossing your pop cans in the nearest trash can or onto the ground.

The whole program will begin on a small scale, including only a few departments such as print services, purchasing, the library, Sure Copy, and some other high traffic areas. Eventually the program will expand to include most buildings on campus.

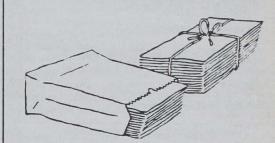
I hope that this program will be a success and a source of pride to the Institute, and that it will allow all of us to learn some of the skills necessary to be at the forefront of

necessary to be at the forefront of the development of industries which support a sustainable economy. If you have any questions about

the program or the recycling industry in general, contact me at 432-8549.

NEWSPAPER:

Newspapers ONLY and they must be CLEAN and DRY. Insert into large grocery bag or bundle with strong twine. Don't set out loose or wet newspaper. Loose newspaper, even in plastic bags, creates handling problems. In case of rain, wrap newspaper in plastic tarp.



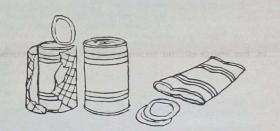
CANS:

Tin/steel, bimetal, and aluminum cans, foil and TV food trays.

Rinse cans and remove labels.

FLATTEN

PLEASE don't give us aerosol, car oil or paint cans; they are not recyclable.



SUPERBOWL AT TAPS!

Sunday, January 28 Doors open at noon Watch it on the big screen!



SAC Building

The Environment: A Call To Action

A special issue of the Link produced by Don Wright

Editorial Assistance: Jack Norie and Anna-Lisa Jones

Contributions:

Jack and Susan Norie are responsible for the Link's weekly environment column, "Environmentips".

Anna-Lisa Jones is Support Programs Co-ordinator for the BCIT Student Association and in charge of the S.A. recycling program.

Mike McKeever is an S.A. Recycling Assistant on student Work Study.

Duff Gardiner is an S.A. Fundraising/Events Co-ordinator on student Work Study.

Zeljko Travica is Trades Chairperson on student council.

Mark Angelo is department head, Fish, Wildlife and Recreation.

Cameron Young is a Victoria writer, specializing in environmental issues.

Adrian de Groot is a student in Fish, Wildlife and Recreation and a member of the Western Canada Wilderness Committee.

Gavin Davidson graduated from BCIT in May 1989, and has worked as a researcher for the Environmentally Sound Packaging Coalition and the Recycling Council of B.C.

Additional contributions from: Canadian University Press, Canadian Science News, Bev Alder and Kathryn Wright.

Too many trees were used to produce this newspaper, so you damn well better keep it for reference or recycle it!



Food

1) Wash all produce. A mild solution of dishwashing soap and water will help reduce pesticide residues.

2) Peel produce. This may reduce the nutritional value but will help if the pesticide has been absorbed.

3) Grow your own produce.

4) Buy organically grown fruit and vegetables and organically grown meat and poultry.

5) Buy produce in season.

6) Beware of perfect looking produce.

7) Alert your grocer to your concerns.

8) Limit consumption of organ meats – liver and kidney for example because of possible heavy metal contamination.

9) Do not store canned goods, especially high acid foods like tomatoes and fruit more than one year.

10) Never leave an open can in the refrigerator. You can avoid lead contamination by transferring food to another container. Also, do not store juices in ceramic containers for the same reason.

11) Do not buy baby foods in metal cans.

12) Buy fruit and vegetables loose rather than on a plastic covered tray.

13) Buy larger size packages of regularly used items and take your own grocery bags to the store.

Gift Giving

1) Give a subscription to ecologically responsible magazines such as Equinox, Harrowsmith or Organic Gardening.

2) Buy memberships in environmentally active groups such as Pollution Probe and others listed on this leaflet.

3) Protect an acre of a tropical rainforest.

4) Stores such as the Body Shop sell a variety of personal care products based on natural ingredients. These products have not been tested on animals and are non-aerosol.

Household Hazardous Waste

1) Substitute non-hazardous, or less hazardous substances for the hazardous ones you now use.

2) Use up toxic items (unless severely toxic) as instructed on the label or share with a neighbour or friend, rather than throwing out partially used containers of material or storing them. Paint for example evaporates and you breathe it, no matter how carefully it has been stored.

3) Take old paint tins, solvents, insecticides, batteries, pool chemicals, pesticides, photographic chemicals, propane cylinders, medicines etc. to a permanent waste disposal depot.

4) Instead of cleaning drains with dangerous drain cleansers, periodically pour boiling water into them, or hot water mixed with a half cup washing soda (sodium carbonate).

5) Use vinegar and water for most household cleaning such as windows, floors and counters. Baking soda can be used to clean ovens. Salt is also a useful household cleanser.

Home Furnishings and Renovations

1) When buying furniture, avoid cushions and mattresses made of CFC foam.

2) Forego air conditioning.

3) When having your refrigerator repaired, find a repair company that has a "vampire", a device that drains the CFCs rather than simply releasing them into the atmosphere.

4) Insulate with cellulose or fibreglass rather than rigid foam which contains CFCs.

5) Decorate with plants such as golden pothos, the peace lily and chinese evergreen; they filter pollutants from the air.

6) For home repairs, do not use pressure treated wood.

7) Buy paints and finishes made of linseed oil and beeswax.

Reducing Waste

1) When you go to the shopping centre, buy only what you need and try to buy quality, durable, long lasting goods.

2) Whenever possible, buy products in returnable, refillable containers. If these are not available, check the labels for recyclable containers.

3) Avoid paper towels, plates, cups, throw-away lighters and razors, and disposable diapers.

4) Rent seldom used items such as tools and party ware.

5) Give magazines, books, etc. to hospitals or homes for the aged.

6) Schools and daycare centres are usually grateful for old yarn, buttons, small boxes, egg cartons and baskets.

7) There are many charitable organizations that would appreciate receiving your used clothing, furniture and appliances.

8) Share items such as lawn mowers, gardening equipment, tools and snow blowers with a neighbour or friend.

9) Start a backyard compost heap with your kitchen and yard waste – banana peels, egg shells, coffee grounds, leaves and a host of other such items. You can reduce your garbage by one-third and at the same time produce an excellent soil conditioner for your garden.

10) Take part in recycling programs. Newspapers, glass bottles and jars, cans and plastic containers can all be recycled.

Rainforest Guardians

World Wildlife Fund has established a program whereby concerned Canadians can make a \$25.00 donation that will provide long-term protection for one acre of tropical forest in the Amazon.

There are four projects operating in 1989/ 90. They are;

- Preserving Manu National Park in Peru Preserving Sangay National Park in
- Ecuador • Protecting the Kayapo Indians in Brazil
- Protecting Parks and Protected Areas in Brazil

For more information on this project you can contact World Wildlife Fund in Toronto at (416) 923-8173 or write to: WWF, 60 St. Clair Ave. E., Suite 201, Toronto, Ontario M4T 1N5.

Writing an effective letter to your M.P.

Link Staff Report

Page 10

1. Keep your letter brief, and limit the subject matter to one topic 2. Say why you are personally supporting a particular position. Let your M.P. know that you are concerned, and that you have committed yourself to informing yourself on the issue.

3, To get a personal response, ask some specific questions about the issue which concerns you. Ask for your M.P.'s opinion, and for his/her political party's stand on the issue.

4. Point out criticisms you have about a particular issue. Be specific

about changes that you would like to see happen.

 Be very polite. Condescending letters have almost no impact.
 If possible, congratulate your M.P. for something you see as

positive, even if you disagree with something much larger.

7. Clearly handwritten letters have the most impact because they are personal. This is why they are preferable to petitions or form letters. Remember - no stamp is

required when writing to your M.P., and each letter written represents the opinion of many people.

All letters to M.P.s should be addressed as follows:

The Honourable (name), M.P., House of Commons,

Ottawa, Ontario, K1A 0A6.

A recreation perspective

By Susan Norie

One of the last chances we have to enjoy glorious summer weather is, more often than not, the Labour Day weekend. On that golden weekend last fall, we thought ... ahhhh ... an opportunity to try out a newly aquired canoe. Where else to go to enjoy the sweet sounds of nature - the humming of insects, the rush of wind through the trees, the gentle gurgle of our paddles dipping in and out of the water, the slapping of waves against the bow and the sweet smell of the forest - but in the country? Hot dawg, let's go to Allouette Lake!

In attempting to conserve fuel needed in pursuit of this reverie, for us it seemed the logical choice: not too close, not too far away. So, we packed all our gear, secured the canoe to our truck and cheerfully headed down the highway. We would soon have "our batteries charged with a dose of Mother nature"

On our arrival, we were greeted by a Parks official who was responsible for controlling parking. We could drive over to launch our boat, but had to return via a pathway from the parking lot back to shore. Fair enough. Busying ourselves at first with parking kept us from noticing how many people were milling about on shore and in the water.

While launching our canoe, instead of smelling the sweetness of pine and flowers the first thing to hit us was the horrendous stench of the gas/oil mix from not only a giant

UBC recycling

Canadian University Press VANCOUVER

The University of British Columbia's student council will be filling its photocopiers with recycled paper to save a few trees.

"At this point three or five of the self-service machines have been converted and we expect within the next two weeks the balance to be converted," said council general manager Charles Redden.

Students who go to Copy Right, the student council's photocopy shop can also choose to have their copies on regular or recycled white paper.

Recycled photocopy paper is two to three per cent more expensive to buy than the regular paper. Redden said the difference was negligible and the store charges the same price for both

The manager of Copy Right, Su Langlois said "The recycled paper looks a little yellow, not that really pure white, other than that, it feels the same. It is a bond paper and it is hard to tell the difference unless you have got one sheet next to the other.

herd of motorboats, but also some newfangled toy that lets you kind of snowmobile atop the water. The gentle sounds of nature were replaced by the buzz and drone and whine of numerous craft, most pulling people around on skis. Not a mist on the lake, no, but the bluish haze from these motorized boats, and a rainbowed slick on the water's surface.

A little disheartened, we thought maybe if we could get away from this shoreline madness and out along the stretch of blue we would find some of the tranquillity we sought. An hour's worth of paddling took us by several parties on shore people with their parked motorboats, ghetto blasters going, sprawled out on lawn chairs and

grinning while draining their cases of beer. We found half-burned papers littering the shoreline and afloat in the water, accompanied by the odd empty plastic bottle of suntan lotion, shampoo and sunken booze bottles. Our vision of a country interlude was quickly fading.

Power boats kept circling around and around maddeningly like horseflies, and to add insult to injury, two super machismo. machines - you know the kind; sleek lined with sparkle paint jobs, pipes four feet long and motors suspended high above so everybody could see just how superior they were - jetted about the lake with the silence of an F-18, washing wakes especially to tip unwary Canoers. Other canoeists on the lake bore the same expression of

disgust as we did.

Surely there must be some way to put a lid on this kind of nonsense If we allow motorized water traffic to increase, we are merely bringing the same kind of traffic and pollution problems to our countryside freshwater lakes as we have on our roads. Worse, actually - those machismo boats are equivalent to dragster cars not even allowed on our highways because of their noise and dangerous speeds.

So we must begin to use our brains and muscles more. Consider others, including wild animals whose territory we are invading, who may not appreciate the assault of noise, smoke and other affronts. Why not buy or borrow a canoe or rowboat instead of running a powered one?

io de Janeiro

Instead of skiing behind a boat, if you wish to ski, how about taking up cross-country skiing? If you must have music, wear headphones music carries a long way across water

Have we become so separated from nature, from our reality, that fossil powered toys are necessary to power our enjoyment? The bigger the better? What is the point of going out into nature if nature itself is not the focus of our enjoyment but only the periphery?

If people cherished and made an effort to understand nature, we would be faced with fewer broken reveries such as the one we had. The loss was more than just a personal one.

73% chose Rio. 27% chose Vail

100% chose Sugarless Dentyne for fresh breath.

SUGARLESS/SANS SUCR

C.NurraSweet, NurraSuc

The ballots are in for the Sugarless Dentyne VAIL/RIO Sweepstakes. On January 31, 1990, 10 lucky winners will be given their choice of a fabulous trip for two to Rio de Janeiro or Vail, Colorado. Thanks to everyone that chose Sugarless Dentyne for fresh breath and good luck in the draw.





Recycling process extracts oil from waste rubber tires

By Sally Johnston

Television's J.R. Ewing would love to have thought of it—turning a dump of millions of worn rubber tires into products. into oil and other useful

That's the aim of a Quebec and Ontario scientist an businessman who plan to build a tire recycling plant to process one million discarded tires a year. They want to establish similar plants in every major city across Canada

within five years. Chemical engineer Christian Roy, who developed the recycling process, and Hamilton lawyer John Unsworth believe it will be highly profitable, but money isn't their only motive; they say the process will also help solve a major environmental problem in large cities

dumps "Tire are eyesores potential fire hazards and health risks because mosquitoes are attracted to the rainwater which collects in the tires," says collects in the tires," says Unsworth. "It's a problem facing every metropolitan area."

In North America, an average of one tire for every person on continent is hurled into a dump each year. Canada's mountain o unwanted tires grows by 240,000 tonnes-24 million tires-annually.

Unsworth, a businessman who specialises in high-tech industries, has set up a company called Petro-Tire that hopes to start construction of a full-scale demonstration plant and have it

operational by fall 1990

He expects it to be located at Hagersville, south of Hamilton, where 15 million abandoned tires lie in Canada's largest rubber graveyard. Though Hagersville is his first choice, Unsworth has his sights set also on the Montreal area, where there are two dumps containing a total of six million

tires. "We are in discussion with both the Ontario and Quebec governments," he says. "We'll start construction wherever we get the go-ahead first."

the go-ahead hrst." The recycling scheme uses a method developed by Roy, associate professor in chemical engineering at Laval University, Quebec City. It involves vacuum pyrolysis, the breaking down of a compound_here it's rubber_into compound—here it's rubberits component materials by heat.

Roy heats the tires in a sealed chamber which has a vacuum pump to draw off volatile gases produced as the rubber breaks down. The process can almost totally recycle a tire, reclaiming components which can be sold back to industry, explains Roy.

It recovers heavy oil, which makes up 55 per cent of a tire's weight—and can be further refined—plus some lighter oil. Carbon black, which makes up 25 per cent of the tire, can also be extracted and reused in the manufacturing of other rubber

per cent of the tire, can also be recovered by using magnets. Another five per cent is Kevlar, a fibre that could be sold to textile industries, and the remaining five per cent are gases that are per cent are gases that are channelled into fuelling the process.

The cycle is completely enclosed inside the plant; no air can get in or out. The processor is sealed at the inlet by a column of oil from the pyrolysis process and at the outlet by a column of water used to cool one of the by-products. Therefore, "it causes no pollution," says Roy. The system was used briefly at

the former Petro-Sun experimental plant in Ste-Amable, near plant in Ste-Amable, near Montreal. When Petro-Sun went bankrupt (for unrelated reasons), Roy convinced oil refiners Ultramar Canada Inc. to buy the \$750,000 plant for \$15,000 to save it from the scrap heap.

He then began hunting for new investors willing to underwrite commercialization of the recycling scheme.

"Ultramar is one of the interested investors," says Roy. the He says the company has indicated it will buy the reclaimed heavy oil for 80 per cent of the base price of West Texas intermediate oil, which used as a standard market reference point.

"We can only produce a drop of Ultramar's oil needs. One tire recycling plant operating at full commercial capacity will produce 50,000 barrels of oil a year—enough to fuel the refinery for half a day. But industry is becoming more open to making a positive contribution to a better environment and supporting our scheme is one way they can do it, he says.

Roy says Laval University is also considering investing in the project.

The initial demonstration plant will operate on a semi-commercial basis, processing 10,000 tonnes, or one million tires, a year. Roy expects it to take two years "to iron out teething problems. Then we can start building full-scale plants which must handle two million tires-double the throughput-to be profitable.

Unsworth is confident that Roy's process is a winner.

"I've looked at other methods of recycling tires, including shredding and freezing/shattering, and this is definitely the best," he says.

Petro-Tire has sole North American marketing rights for the recycling system and hopes to establish a string of plants in Canada and the United States. "I am confident it can be done

This isn't something that's been dreamed up overnight. It has taken five years and millions of dollars to get this far," says Unsworth.

Roy and his 20-person research team have spent four years and about \$2 million developing the recycling process. Funding has come from the federal department of Energy, Mines and Resources and from industry. (Canadian Science News)

This factory near St.-Amable, Quebec is the pilot plant for a new process

by which old tires can be reprocessed into oil and other useful materials. The process, a sealed cycle, is almost pollution-free. (C. Roy, Laval U.)

Plastic recycled as insulating fibre

waste plastic could soon be helping Canadian homeowners in their battle against enemy—the cold. against an unseen

A Toronto-based firm, Embrace Systems Canada Corp., has developed an insulation material, made from recycled plastic, that it says is as effective as glass fibre. Called Puffibre, the material is

made by heating waste plastic and spinning it into fibres. The company says it is pliable, non-toxic, not irritating to skin and comparable in energy efficiency to clear Ghea inculation. glass fibre insulation.

Aided by a grant from the Ontario government, the company already tested the insulation on

building sites that need to be heated

Old detergent bottles and other in winter while construction workers are inside. It plans to make Puffibre available to homeowners by next spring. Mark Meade, company founder

and president, used to work in construction, where he saw the need for a more effective blanket to wrap around buildings under construction in winter. He found that glass fibres used in tarpaulins

broke down quickly. The new material is translucent white. allowing natural light through. Meade said the material has been

approved by the U.S. Food and Drug Administration to insulate factory walls in refrigeration and cold storage installations

(Canadian Science News)

can be used to show their origin **By Lorraine Brown**

enabling fisheries managers to

mirex. Because mirex was then found only in Lake Ontario and

two of its tributaries, the scientists

assumed the eels were picking it up during their migration into Lake

However, a more recent study by

Castonguay and his colleagues, Jean-Denis Dutil and Claude

the link, january 24, 1990

Ontario.

aquatic ecosystem.

Quebec.

Fisheries biologists are using the levels of artificial, organic contaminants in the flesh of fish from the St. Lawrence River to learn about the contaminants' movement distribution throughout the and

being carried down the St. Lawrence from Lake Ontario in bottom sediments moving slowly down-"Fish are biomagnifiers," says Dr. Martin Castonguay, a fisheries stream. The sediments are the most biologist with the Department of likely source, since mirex is not soluble in water and is not tran-sported through the air. Fisheries and Oceans in Mont-Joli, "They accumulate contaminants present in very small "If mirex has drifted down in the sediments, then you can imagine amounts in their environment and magnify their levels. By studying fish you can learn about the distribution of contaminants."

that many other contaminants have drifted down as well," says Castonguay. "Lac St.-Pierre has become a zone of accumulation of Castonguay says that using con-taminants as 'markers' could also sediments.' become an important tool for

Castonguay's study analyzed fish from six sites in the St. Lawrence for 15 organochlorines, including lindane, chlordane, dieldrin, DDE, DDT, and PCBs. Predictably, young fish had lower levels of contaminants, since they have had less time to accumulate them. Fish taken from the Richelieu River where it enters the St. Lawren also had lower levels, probably because the Richelieu flows out of Lake Champlain, in a far less industrial area than the Great Lakes and other St. Lawrence tributaries.

Contaminant levels are helping scientists further understand the St. Lawrence eel fishery, by allowing them to pin-point the geographic origin of the various stocks. In Quebec, and possibly throughout eastern Canada, eels are the most economically important freshwater fish, virtually all of them being ex-

ported to Europe and Japan. During the early 1980s, Ger-many stopped importing St.

and other contaminants in the St. Lawrence. Claude Desjardins, an inspector

with the Fisheries and Oceans regional inspection laboratory in Longueil, Quebec, says that all lots of St. Lawrence eels are checked for levels of about 40 contaminants, including heavy metals as well as organochlorines, before being exported. While organochlorine levels have been stable, heavy metal levels have decreased in recent years

(Canadian Science News)

Trivia

Aluminum cans bought today, used, and recycled, are back on the shelf in six weeks

One tonne of recycled newsprint saves 17 trees

One stack of newspapers, three freet high, saves one tree

About 1/3 of the total industrial energy consumption is used by the pulp and paper industry

75,000 trees are used to produce one Sunday issue of the New York Times

Each glass bottle recycled saves enough energy to light a 100 watt bulb for four hours

Highway salt spray harms plants

Cars that travel some of Canada's busiest highways in winter may spray salt further than 50 metres onto either side of the road, according to a new survey.

Scientists have known for some time that road salt does considerable damage to animal and

plant life near the highways. Not only does the salty spray harm the plants that grow beside the road, but also the salty water runs off and pollutes streams and ponds. It has been found to reduce the life expectancy of animals living in these waterways. Salty water can also kill trees that soak up the brine when it seeps into the soil.

The new study, conducted by Edward McBean of the University of Waterloo in Ontario and Sabah

in England, measured exactly how far sale is sprayed by passing cars. In a survey of Canadian roads, scientists found that on the the roads with the lowest speed limit,

salt is sprayed 29 metres from the edge of the road, with most of the salt concentrated within 2 metres. At the other end of the speed

concentrated within 10 metres.

highways where drivers regularly break the speed limit salt is sprayed

(Canadian Science News)

distinguish between stocks. Since contamination varies from one area to another, the contaminants in fish could be used almost as Al-Nassari of Liverpool University fingerprints' to determine where the fish have been living. For example, the types of contaminants or the overall contaminant profile of salmon caught off the coast of Labrador could indicate whether

the fish were from European or Canadian salmon stocks. A few years ago, researchers found that migratory eels caught in the St. Lawrence were con-taminated with a pesticide called mires. Because mires was then

range-100 kilometres per hour-salt was found 37 metres from the road, with most of it The scientists conclude that on

50 metres into the surrounding area on either side of the road.



Lawrence eels, saying that the levels found mirex in the Desiardins. of mirex in them were too high. This spurred the research into flesh of lake sturgeon that do not migrate up to Lake Ontario, but stay in Lac St.-Pierre, a widening mirex of the St. Lawrence east of Mont-real. They assume the mirex is

Environmental tobacco smoke hazards worse than thought

A recent American study shows that Environmental Tobacco Smoke (E.T.S.) kills 46,000 NON-SMOKERS each year in the U.S. "The findings of this study support earlier ones and indicate that not only lung cancer, but other cancers and heart disease are serious problems. In fact, lung cancer appears to be only the tip of the iceberg." The three main tobaccorelated diseases contributing to the 46,000 non-smoker deaths in this study include: ischemic heart disease (69.5%), cancer other than lung (24%) and lung cancer (6.5%).

Go Cold Turkey

By Jan Poersch BCIT Medical Services

Just one cigarette: speeds up your heart beat, increases your blood pressure; upsets the flow of blood and air in your lungs; and causes a drop in the skin temperature of your fingers and toes.

Wednesday, January 24 is Cold Turkey Day. It is time again to try and quit smoking yourself or to help a friend quit smoking. Medical Services in the SAC has lots of literature to help you do just that. Survival tips for Cold Turkey Day, guidance for buddies and how to help a friend quit.

There are handouts outside Medical Services on the bulletin board as well as more detailed information and help inside. Join the quitters today!

Positive thinking

By Louise Baker BCIT Medical Services

Everyone knows what the deadly risks of smoking are. So, instead of being preoccupied with the morbid details of the habit, let's consider something positive.

When you quit the habit on Cold Turkey Day, you will immediately profit by:

- reducing the risks of premature death: a 25 year old smoking 2 packs a day shortens life expectancy by more than eight years

decreasing the likelihood of cancer of 1) the lungs, 2) the larynx,
3) the mouth, 4) the esophagus, 5) the bladder, and/or 6) the pancreas

- sharply reducing the risk of heart disease after only one smokefree year

- increasing good lung function, thereby supporting a feeling of having more energy



- eliminating the risk of giving birth to a stillborn or underweight baby

- decreasing the likelihood of stomach ulcers

- lowering the risk of harmful blood clots.

Now, knowing all these benefits, how can you afford NOT to quit? Don't be a turkey... join all the quitters on January 24th. sensitive to E.T.S. and may increase the total deaths. The study suggests that the mortality may be 50% higher if these other risks are factored in. As an interesting footnote, the study found the median age for tobacco-related lung cancer deaths in male non-smokers was 66. The study concludes: "To be on the safe side, public health policy should be to protect non-smokers from E.T.S."

According to the study, carcinogenic

small and penetrate deeply into the

particles and it is likely that they are

primarily other cancers (liver, cervix,

particles of E.T.S. are extremely

alveolar region of non-smokers'

lungs. The natural lung cleaning

dissolved and absorbed into the

circulation throughout the body. This causes some lung cancer but

breast) and adverse heart effects.

calculated in this study, namely

The number of non-smoker deaths

46,000, may be low because it was

based largely on home exposure and

did not include intense exposure at

ischemic heart disease is considered,

the workplace. As well, only

although other cardiovascular

diseases and diabetes may be

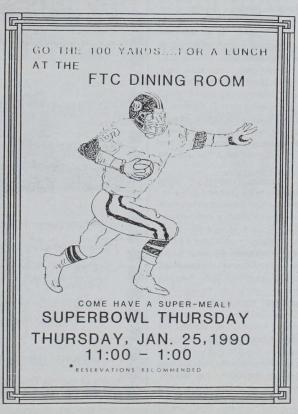
process is slow to clear these

blood and lymph systems for

nasal sinus, leukemia, brain, endocrine glands, lymphoma, and

Source: Wells AJ. An Estimate of Adult Mortality in the United States from Passive Smoking, Enviroment International, Vol. 14, pp. 249-265, 1988.

Courtesy: Airspace: Nonsmokers' Rights Society.





For Women in Non-Traditional Trades Training and Engineering Programs

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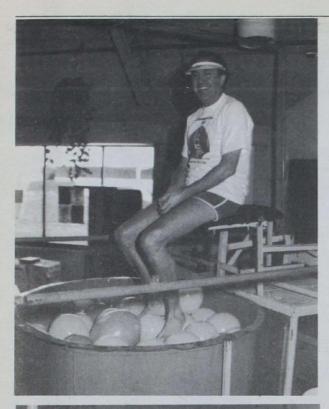
This overview workshop will focus on developing women's personal skills for working in non-traditional occupations



ANITA ROBERTS

has been teaching women to exercise their full potential in their personal and professional lives for twelve years. She is a dynamic public speaker with a unique and creative approach to assertiveness for women.

JANUARY 30, 1990 3 to 5 p.m. - Telephone Exchange Building All other interested women welcome



Dunkfest deemed a success

chicken chunks and 15 teams armed

with pledges for the Needy Student

Link Staff Report

Organizers have declared last Wednesday's Dunkfest a "great success". Among the events attracting big crowds were the Hard Rock Miners, playing for Much Music in the gym, the Open House Talent Show in Taps, the dunktank, pig-out and Madame Rosa

Fund and big appetites. Many BCIT celebrities braved

cold water and jeering crowds to support dunkfest, including BCIT President John Watson, shown on this page going for a swim.

Madame Rosa, a second year The pig-out featured A&W marketing small business student, gave tarot card readings during the event, and at least one strolling street musician was spotted on the campus grounds, serenading passersby with an accordian and voice.

Organizers said they were pleased with the amound of money raised for the Needy Student Fund, although they would not release any numbers until all the pledges are in.

Future stars emerging?

Last Wednesday during the three hour break the Open House Talent Show took place in Taps. The talent show, organized to recruit volunteers for an Expo-style Open House, attracted quite a few acts, including singers, guitarists, one monologue and a lip-syncing trio calling themselves Trina Turner and the Superlatives.

Performers included Lance Varhank, Micheal Naples, Alex Salazar, Cafer Arag and Masood Sharvand.

Winning the competition was Trina and her group, made up of Trina Medeiros, Ronee Neff and Helen Pierce.

Open House is set for April 6, 7 and 8 this year.







Stuart McNish

Every morning this year I show up at school around seven. My first stop is Dukes where I purchase the essentials of a happy and healthy life.

From there I take my goodies over to the lounge in the SAC and settle in for a few minutes trying to sort out what the day may have in store. For example today I will be interviewing a retired Rector from the Anglican church. I have to think of what I want to ask him. Ouestions like what is religion and what role does the Christian church play in religion? Is all this stuff about life after death really real or do we just die?

Anyway back to the point. As I sit there in the SAC I can't help but notice people playing squash. Every single morning there is someone in there wacking a ball against the wall. Most of these people are not world class players. As a matter of fact they aren't very good, but still they are playing.

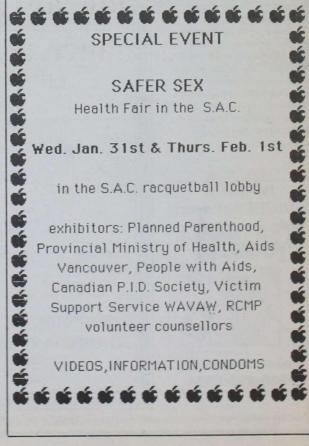
I realize however I enjoy watching these guys and gals play. More so than watching the pros. I would rather watch a rank amateur play than a pro, in many ways I find that amazing. I have been a tennis nut for years and I'll never forget the disappointment I experienced when I went to see Bjorn Borg and Jimmy Connors play an exhibition match in the Pacific Coliseum. Bjorn played like he could care less, which it turned out was the case. He couldn't have cared less. About a year later I was to find out, he was more interested in the party that was to follow the match. Fair enough, but please do it on someone else's twenty five dollars, please.

When I sit in the SAC and watch Photos by Michael Gdowski. students play squash I find myself the link, january 24, 1990

being absorbed in their intensity. As a good point starts to unfold I find myself quitely hoping it will go on experience the forever. I disappointment of each player as they try to hit a shot they are incapable of executing. In other words I am drawn into the match and I like it.

So if I may I would like to raise my coffee cup in a salute to the students who play squash with passion each morning in the SAC.

That of course brings us back to the topic of my weight. Despite valiant attempts by both my son and girlfriend I think I have succeeded in putting on about four pounds. I feel so much better when I know my pants aren't going to sup off when I want them to stay on.



Page 14

Council report: January 22

By Melanie Friebel

At Monday night's Council meeting, John MacDonald, Business Society Chairperson, presented the results of his carpooling project. The project, following a three day survey of drivers at BCIT, showed 83.1 per cent of drivers arrive at BCIT alone. 15.8 per cent of the cars contained two people, and just one per cent

had more than two people per car. MacDonald said more work on the project is needed and will announced in the near future.

The constitution changes presented during the last council meeting, which ran in the Link for two issues, were voted on and passed.

Duff Gardner, who has been



Here's your chance to really make a difference. If you are a Registered Laboratory Technologist with the Canadian Society of Laboratory Technologists you can begin a rewarding career in the exciting medical division of the Canadian Armed Forces. As a vital member of one of our hospital teams, your future will include

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ARMÉES

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CANADIENNES Régulière et de réserve Canadä

working for the Student Association as fundraising co-ordinator, was appointed Vice President, Public Relations and Marketing to replace Jo-Anne Emery who left BCIT at the end of last term. Gardner's most recent project was the Dunkfest held last Wednesday.



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Starts today - January 24

Entry forms with every purchase of Coca-Cola product at Campus Cafe, Roadrunner & Food Training Centre.

DRAW DATE: Friday, February 9

Page 15

Letters to the Link

Dreaming

Editor, the Link,

What's your beef? I had a dream. It was about BCIT.

1) The numerous piles of glass in the parking lot were swept up.

2) The commissionaires realized that the number of car break-ins was up - only the number of reports filed to the commissionaires regarding break-ins were down. (After your car has been broken into more than once, you realize that reporting it to BCIT authorities is next to useless) and they patrolled the parking lots to protect our cars.

3) The janitors stopped waxing the floors in the SAC with the world's most slippery substance and as a result the number of skull

fractures on rainy days went down. 4) The commissionaires arranged to have salt thrown on the

main outside paths and near stop signs on campus on cold winter days. 5) Renovations to the school

were carried out during the summer holidays and as a result no more noisy drilling into the cement walls occured during midterms or final

Then I woke up. I was in my car in the BCIT parking lot. I was late for class! I got out of my car and stepped on a pile of broken glass on the icy blacktop. Paul Wells

Biomed

Proposal

Editor, the Link,

A modest proposal to solve the ridiculous parking on campus.

I could not fail to notice that there are a very large number of trees on this campus. Lawns as well, many bordered with expensive shrubbery beds and a small creek with a pond,; even a large green playing field - all taking up valuable space.

You claim that we have a parking crisis: that there is simply not enough room for everybody's car on campus.

My solution is both simple andobvious: let us remove all of this extravagant grassland, cut down all offending trees, fills in streams and ponds and create for all of us the parking we so desperately need and deserve

I have given this idea a great deal of thought so I am not interested in hearing any suggestions about using public transportation, oh no, nor encouraging car-pooling among solitary communters, not a bit of it thanks.

And please, no protesting voices raising the spectre of auto emmissions, fumes and exhauts contributing to global warming of our planet.

No, my suggestion addresses this problem head-on and assures us that there will be more than ample parking for every single man, woman or child to wheel that 20th century pony into the ole corral and be secure in the knowledge that they'll find a patch of smooth black asphalt marked out with crisp yellow lines waiting just for them. Ahh, tomorrow's technology... today.

W.J. Wilde Horticulture

Thank you's

Editor, the Link,

Dunkfest would like to thank all the volunteers who made the evnt possible: Joanne, Derek, Eing, Robin, Susan, Misty, Kris, Arlene, Jim, carrie-Anne, Wendy and Helen.

Dunkfest would also like to thank all dunkees: John Watson, Andy Ellingson, Don Eklof, Mario Maziotti, Melanie Wheating Dave Souder, Carl Vanderhorst, Dave Miles, Gord Milledge, Jim Mitchell, Derek Bell, Clay Martin, Ralph Wyatt, Lori de Cou, Aaron Svendson and Val Karpinsky.

Dunkfest requests that all "A&W Chicken Chunk pig-out contest" pledges and pledge forms be submitted to the Student Association office by January 30, 1990. The winning set in the Punchlines competition will be named at noon that day. Dunkfest regrets that some teams were unableto participate due to the 1:30 p.m. start. If your set raised pledges, but was unableto come at that time, please see Duff in the S.A. office in

the SAC

Dunkfest congratulates the following raffle winners: Hyatt dinner for two: Betty McCallum. \$40 Access Computers Certificate: Vince Lauder.

Dunkfest would like to thank A&W, Duke's, Taps and Koala Springs for their contributions.

A special thanks to the BCIT Alumni Association for their financial contribution to Dunkfest and for their \$400 donation to the Needy Student Fund.

Finally, Dunkfest would like to thank Maeve O'Byrne for her guidance, Jim Mitchell and Paul Fortier for their technical assistance and the guys at Central Stores.

Dunkfest Organizers

Daycare approved in principle

By Melanie Friebel

When they met last Wednesday, the BCIT Board of Governors approved in principle the establishment of an on-campus daycare facility. According to Anna-Lisa Jones, Support Programs Coordinator for the Student Association, the approval means organizers can now apply for capital funding through the Federal government and the Lottery Corporation. The Institute is backing the plan and has promised a site on campus as well as some funding.

The daycare, when in place, will give first priority to students, but will have stable reservations for staff and faculty. The plan involves a three year multi-phase approach, with expansion starting in the second year. To start, the daycare capacity will be 25, 3 to 5 year olds, eventually expanding to 1 to 3 years old.

Classified Ads

WORD PROCESSING

Word Processing and computing services available for studens at student rates. e.g. \$1.65/double spaced page. Ask for other rates. Term papers, reports, resumes, charts, etc. Flexible hours. Fast and accurate. Call 298-2212. Please leave a message

FOR SALE

Amstrad 9-pin printer with Mint cindition. IBM cable. compatible. Asking \$275 obo. Call Josette: at 298-2212

VCR to be won

The Coca-Cola Company and the Campus Cafe, Roadrunner and Food Training Centre are having another VCR contest - with every Coca-Cola purchase customers get an entry form to enter the draw for the VCR. The contest starts today and the draw for the VCR is on Friday, February 9, 1990.

George Morfitt, FCA, Auditor General of British Columbia Watchdog of the public purse. The man our provincial government is accountable to on all fiscal

His clients are B.C.'s taxpayers. His job is to make certain the province's \$13 billion budget is spent economically and efficiently.

economically and efficiently. The responsibility is enormous. But George excels at turning challenging assignments into successful and rewarding opportunities. He has worked in many areas of business finance, he has worked in many areas of business finance.

which led to his previous position as Vice-President and Chief Financial Officer of The Diamond Group of Com-panies. He's been Chairman of the University of British Columbia's Board of Governors and the Universities Council of B.C. A municipal

alderman. President of the Institute of Chartered Accountants of B.C. And inductee to the province's Sports Hall of Fame

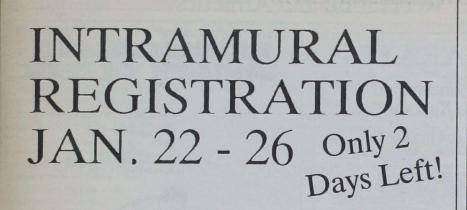
Hall of rame. George's CA has opened many of those doors. "You can use the discipline, training and approach gained from your professional designation to take leadership roles throughout the fabric of Canadian society."

George Morfitt, CA and public watchdog George Morfitt, CA and public watchdog If you're looking for a career with multipl opportunities, write the Institute of Chartered Accountants of B.C.

Our standards are higher.

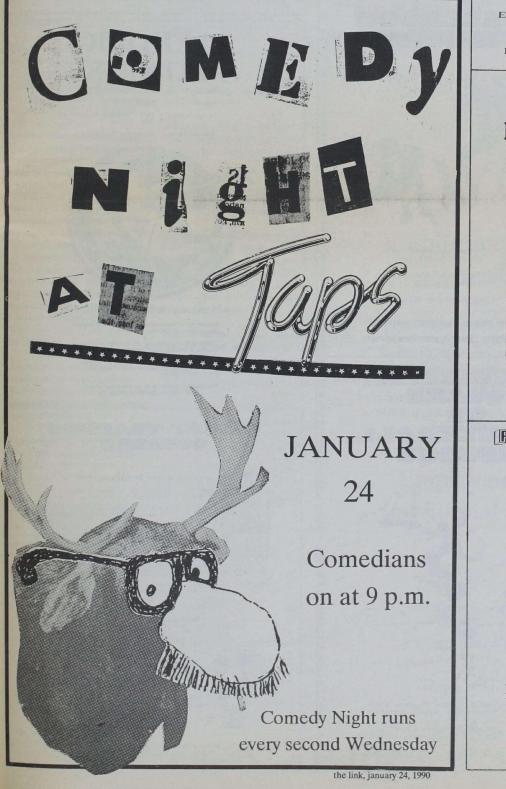
Institute of Chartered Accountants of British Columbia I133 Melville Street, Vancouver, B.C. V6E 4E5 Telephone: (604) 681-3264 Toll-free 1-800-663-2677

George Morfitt's CA introduced him to 3 million clients.



Non-contact Ice Hockey

Exhibition games today 12:00 Blue Rink - Mech vs Forestry 12:00 Red Rink - Marketing, Mix, & all new players





Page 17

Learn Body Relaxation Through Massage

Upcoming Workshops

January 24

Post Diploma Options for School of Health and Engineering students (1A 201) and for School of Business students (1A 129). Each session starts at 12 noon and all interested students are welcome to attend. For more information contact Student Services Counselling at 434-3304. Presented by BCIT Counselling.

January 25

Engineering Technology students interested in the Engineering Degree program at Lakehead University may attend one of three presentations by Dr. Gary Locker, director, School of Engineering. Session 1 is 9 a.m. to 10:15 a.m.; session 2 is 10:45 to 12 noon, and session 3 is 1:30 p.m. to 3:15 p.m. Sessions 1 and 2 take place in the Telephone Exchange building (2E) and session 3 takes place in 1A 206. All sessions are repeat general presentations.

January 26

Montana Tech speaker Dr. Dan Bradley will talk about post diploma degree programs in mining, chem-metalurgy, petroleum, environmental health, safety & health and computer science. Session 1 is 9 to 10:20 a.m. room 1A 126, session 2 is 11:30 to 12:45 in room 1A 239, and session 3 is 2 to 3:30 p.m. in 1A 203. All sessions are repeat general presentations.

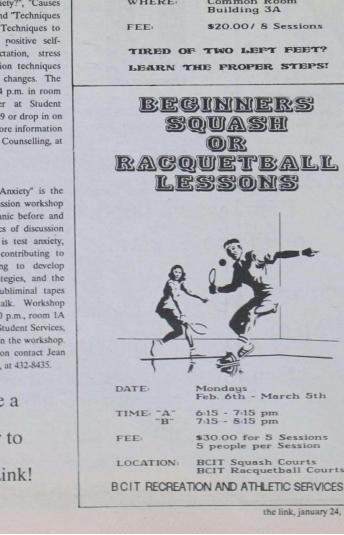
February 5

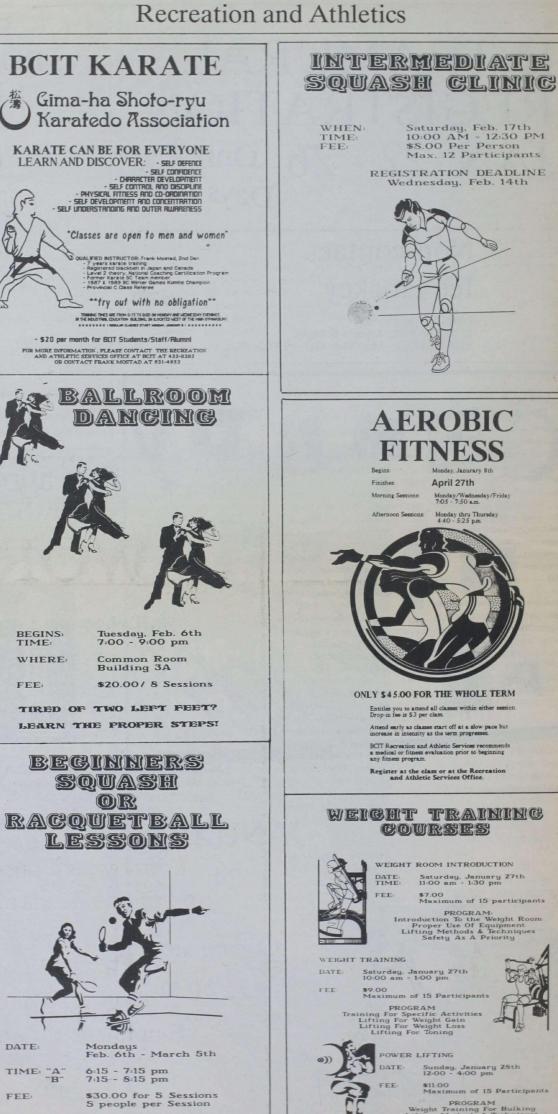
Getting control of anxiety in the clinic, a workshop for school of Health Science students. Discussion will include the following topics: "What is clinical anxiety?", "Causes of clinical anxiety." and "Techniques for getting control." Techniques to be covered include: positive selftalk, realistic expectation, stress management, relaxation techniques and inter personal changes. The workshop runs 3 to 4 p.m. in room 1A 201. Pre-register at Student Services, room 1A 229 or drop in on the workshop. For more information contact Jean Spence, Counselling, at 432-8435.

February 7

"Coping with Test Anxiety" is the name of this one session workshop for students who panic before and during exams. Topics of discussion will include: What is test anxiety, identifying factors contributing to test anxiety, helping to develop techniques and strategies, and the Sarnoff Squeeze, subliminal tapes and positive self-talk. Workshop runs 12 noon to 1:30 p.m., room 1A 201. Pre-register at Student Services, 1A 209 or drop in on the workshop. For more information contact Jean Spence, Counselling, at 432-8435.

> Write a letter to the Link!





Saturday, Feb. 17th 10:00 AM - 12:30 PM \$8.00 Per Person Max. 12 Participants REGISTRATION DEADLINE Wednesday, Feb. 14th AEROBIC FITNESS April 27th Monday/Wednesday/Friday 7:05 - 7:50 a.m. Monday thru Thur 4:40 - 5:25 p.m. ONLY \$45.00 FOR THE WHOLE TERM Entitles you to attend all classes within Drop-in fee is \$3 per class. nd early as classes start off at a slow pace but tase in intensity as the term progresses Register at the class or at the Recreation and Athletic Services Office. WEIGHT TRAINING COURSES WEIGHT ROOM INTRODUCTION Saturday, January 27th 11:00 am - 1:30 pm DATE \$7.00 Maximum of 15 participants FEE PROGRAM: ntroduction To the Weight Roor Proper Use Of Equipment Lifting Methods & Techniques Safety As A Priority WEIGHT TRAINING Saturday. January 27th 10:00 am - 1:00 pm um of 15 Par

PROGRAM ining For Specific Activ Lifting For Weight Gain Lifting For Weight Loss Lifting For Toning

POWER LIFTING DATE Sunday. January 28th 12:00 - 4:00 pm

> \$11.00 Maxim um of 15 Participants PROGRAM Weight Training For Bulking Lifting Methods & Techniques

REGISTRATION DEADLINE Wednesday, January 24th

the link, january 24, 1990

BCIT Squash Courts BCIT Racquetball Courts

Employment Opportunities

The following are employment opportunities available through the Employment Action Centre, 4th Floor, JW Inglis Building. If you're interested in the following positions please see Betty or call 438-1343 for further details.

Electronics: two part-time positions; repairing VCR's and telephone answering machines and repairing and rebuilding amplifiers, loud speakers and tape decks; N. Vancouver and Vancouver locations; Salary -negotiable. Ref#J38/J37

Carpentry: weekends & holidays; renovating, framing, will train; Vancouver location; Salary -\$12.00/hr. Ref#J34

Industrial Maintenance or Diesel Engine Mechanic: full-time position; diversified position which includes skills in electrical, machining, welding, metal fabricating and diesel engine; Richmond location; Salary negotiable. Ref#J35

Electrical/Mechanica 1: full-time position; 'epair small time clocks including testing circuit boards on computerized clocks; Vancouver location; Salary - \$375/week. Ref#J40

Installer: full-time position; install gymnasium equipment, read blueprints, experience working with metal and wood, will train; Vancouver location; Salary - \$10-\$15/hr. Ref#J39

Electrical: part-time - up to 20 hours per week; instruct, direct staff ensuring quality control of wire harness production; Vancouver location; Salary - \$10/hr. Ref#J20 Service Technician: full-time - 2 positions; repair and install photocopiers and fax machines; Vancouver location; Salary -\$1300-\$1500/mth., plus car allowance. Ref#J32/J21

Mechanical Drafter: part-time position; company manufactures marine controls and industrial disk brakes; Richmond location; Salary negotiable; Ref#D30

Architectural Drafting: part-time oncall; drafting and space planning of room layouts for brochures; N. Vancouver location; Salary -by project. Ref#J25

Journey Auto Mechanic: full-time position; 6 bay garage, BCAA & vehicle inspection certified, Good Year service centre, excellent working conditions; Ladner location; Salary negotiable, full benefits. Ref#J06

Plumber: full-time position; residential and commercial plumbing; Surrey location; Salary - negotiable (above average wage). Ref#-J26

Institutional Cooks: part-time on-call and full-time positions; N. Vancouver/Burnaby locations; Salary -8/hr -11.84/hr.

Traffic Counter: part-time, but must be available for a full day; count traffic at major intersections; Various locations; Salary - \$50/day. Ref#D22

Benchwork & Joinery: full-time; build custom furniture, some manufacturing; North Vancouver location; Salary -negotiable. Ref#J23

Benchwork & Joinery: full-time; install kitchen cabinets and counter tops; Surrey location; Salary negotiable. Ref#J24

Architectural Drafting: part-time or full-time position; perform take-offs from blueprints for paint estimating, can work at home; Salary -negotiable. Ref#R21

Architectural Drafting: full-time; drafting commercial plans; Nanaimo location; Salary -negotiable; Ref#J01

Horticulture: full-time; residential and commercial landscape maintenance; Richmond location; Salary - \$8.00/hr. Ref#J03

Installer/Bench Technician: full-time position; installing vacuum systems and performing bench technician duties, must have good mechnical skills; tools and training provided; will be working all over lower mainland; Salary - \$9.00/hr. _Ref# N37

Yard Person/Brake Person: full-time; move trains from one location to another and service trains, training provided; Vancouver location; Salary - \$13.00/hr and up. Ref#D27

Carpenters: several full-time positions; framing, forming, finishing; Langley, Vancouver, Surrey locations; Salary -10/hr.

Pressure Washers: part-time; drivers licence, no experience necessary, will

On Professionalism: A Series From Black & McDonald Without your consent." -Eleanor Roosevelt

Black & McDonald Limited Canada's largest independent electrical & mechanical contracting organization

St. John's • Goose Bay • Halifax • Montreal • Ottawa • Toronto • Hamilton London • Kitchener • Winnipeg • Edmonton • Calgary • Vancouver train; Burnaby location; Salary -\$7.00/hr. Ref#D31

Plumber: full-time position; residential repairs and alterations, possible apprenticeship; Burnaby location; Salary - \$7-12/hr D.O.E. Ref#-N38

Landscape Worker: full or part-time position; pruning, hedging and general maintenance; commercial and residential work; Burnaby location; Salary - \$8-10/hr. Ref#-N32



298-4600 Store Location: 2201 Rosser Ave., Burnaby National Research Council Canada



The BCIT Technology Centre and the National Research Council Canada wish every success to students in their Open House on April 6th, 7th and 8th, 1990.

BCIT and the National Research Council Canada are prepared to offer advice and some financial assistance to students in preparing and presenting Open House displays. Special attention will be given to those displays that are innovative and unique.

Here is an opportunity for groups of entrepreneurial students to show their scientific, technical or engineering demonstration to the general public.

As both BCIT and the National Research Council are committed to fostering applied research and technology transfer activities, these organizations are prepared to help students with their Open House displays.

If you wish further information come to the Development Assistance Centre in the Technology Centre, room 1A-121 (formerly the campus bank) or phone 432-8761 to arrange an appointment.

NEED WORK?

Full-time and part-time jobs available including:

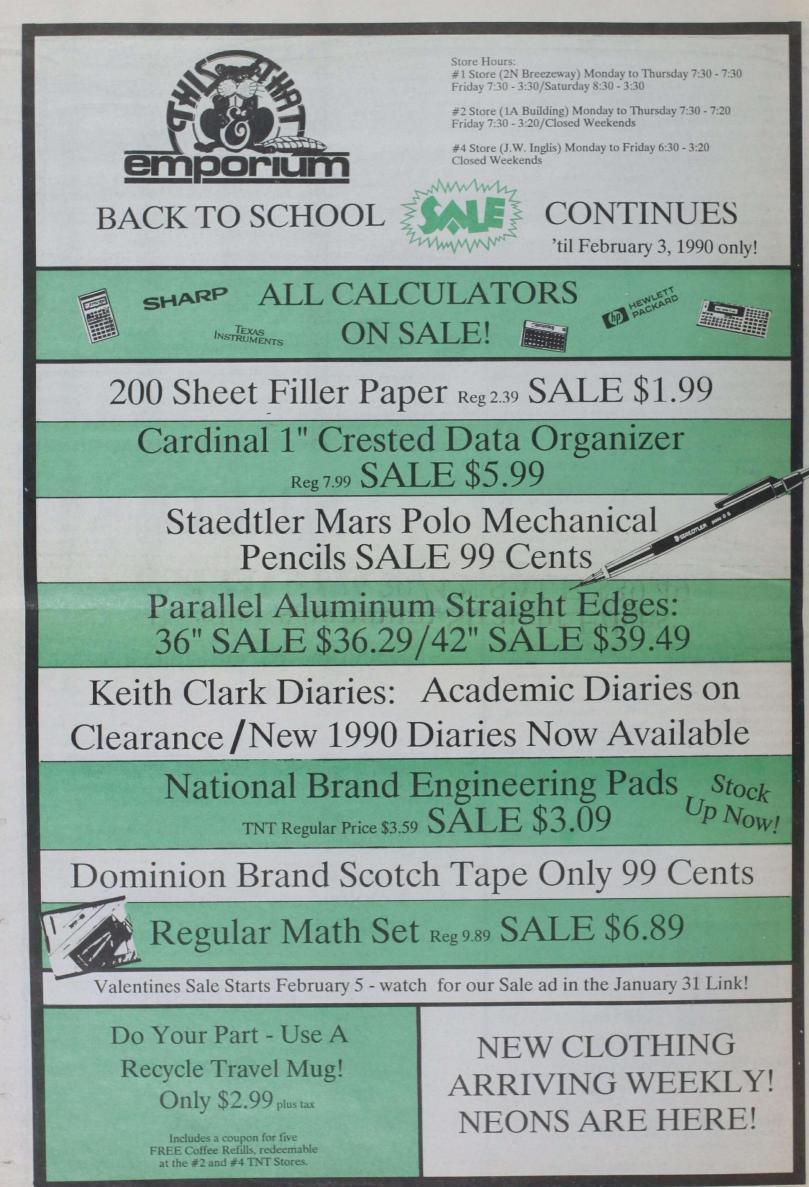
Welding, Electronics Technicians, Electrician, Power Engineering, Security Alarm Systems, Horticulture, Drafting (architecture - mechanical - civil structural), Upholstery, Millwright, Carpentry, Benchwork & Joinery,
Appliance Repair, Mechanics (automotive - commercial transport - diesel heavy duty - inboard/outboard - motorcycle), Aviation/Avionics, Machinist,
Industrial Maintenance Mechanic, Forestry Crewperson, Plumbing, Sheet Metal, Retail Meat Cutting & Wrapping, Sausage Making and Smoked Meats, Baker, Cook (short order - institutional)

Employment opportunities in additional areas also available.

The EAC has it! Register Today at the Employment Action Centre 4th Floor, J.W. Inglis Building

or call 438-1343

This program is a co-operative venture of your Student Association and BCIT.



the link, january 24, 1990