

## VIHP shows what teamwork can do

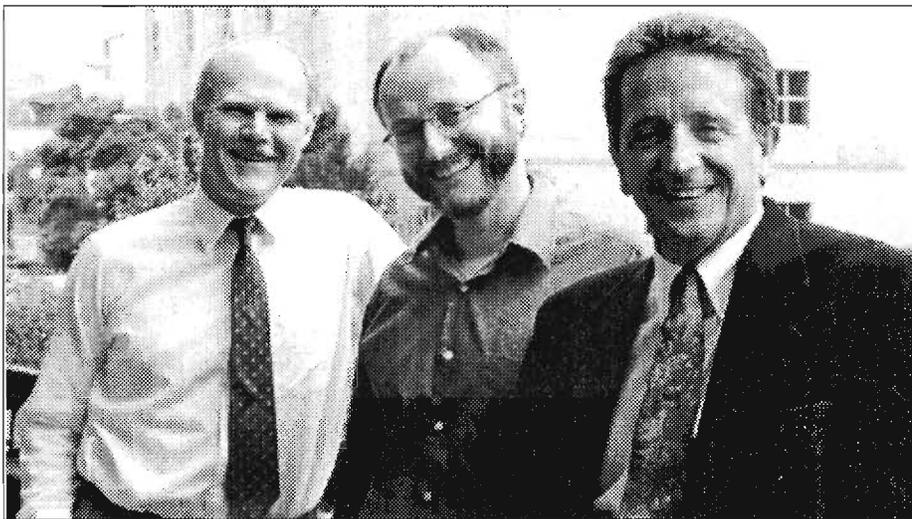
What happens to the project team when the largest construction project in Western Canada has passed its peak? For some at the Vancouver Island Highway Project, it's business as usual. For others, it's time to contemplate the next move.

It's not that the project's end is nigh - the current construction schedule targets a completion date in the 2002/03 fiscal year - but for many team members the time is fast approaching to move on after a job well done.

Project director Gregg Singer says the big challenge will be keeping resources focused to the end.

He notes that while the \$1.2-billion project is more than three-quarters finished, \$330 million of work remains, a significant amount that continues to qualify the project as the ministry's largest single highway project currently under way.

Assistant project director Svein Haugen says the changes have mainly affected consultants of UMA Engineering, who have been replaced with ministry people. "Some functions are coming to an end of their requirement," he says.



VIHP team members Jack Stuempel, Svein Haugen and Gregg Singer.

Haugen, who is working with project managers on a succession plan to help people in those functions go to other jobs, projects or challenges, says success or failure will depend on how much work is out there for people to move into.

Not that team members are

overly concerned. "Most people on the project team are fairly driven," says Jack Stuempel, manager of communications. "They aren't preoccupied with the future. Some apprehension is to be expected, but in general they are intense, committed and focused, and their effectiveness in making a transition is all a matter of

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## MoTH, college agree to share new lab

Some ministry staff are going back to school not to hit the books but to work. In a landmark co-operative agreement, the College of New Caledonia is providing MoTH with space for the ministry's geotechnical and materials engineering lab.

Each side benefits, the ministry by moving into a state-of-the-art facility at lower cost, and the college by giving students some hands-on experience that could lead to jobs. "I'm really pleased to see this kind of cost-saving, co-operative project."

## Minister Lali lauds staff for accomplishments

The job of keeping the highways of our province in good operating condition is a never-ending task. We are in our busiest period with hundreds of capital and rehabilitation projects under way. The challenge to get the work done on time and on budget is shared by everyone in the ministry. Our success will be determined by our ability to work as a team.

We have designed our work plan to address the needs of communities across B.C. Whether it's repairing the road system in the northern part of the province - to which we have committed \$66 million this year - or working on major projects in the Lower Mainland or Vancouver Island,

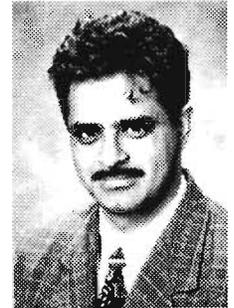
we are making a difference to the lives of British Columbians and to the economy of the province.

As you know, we are focusing increasingly on partnerships. For example, the Infrastructure Works Program is a partnership of the three levels of government. A new interchange in Mission is a partnership of the BC Transportation Financing Authority, local government and a developer. Partnerships let us make affordable investments that help us move ahead as a society and as an economy.

We are focusing also on making operations more efficient and cost-effective, and this challenges us to

review every aspect of our work. Change is always difficult but invariably it brings out the best in people, as has been demonstrated by the provincial sealcoating crew who have turned around an operation that only two years ago was fighting for its survival. By planning and working together, we'll get the job done.

Thank you all for your professionalism and for your dedication to our world-class transportation system



Minister Harry S. Lali

## Kootenays Region solves thorny maintenance issue

A year ago the highways maintenance contract for East Kootenays was in disarray producing complaints by the hundreds to the minister and ministry.

Today one hears nothing but good reports lauding the quality maintenance service in the contract area.

And while that's credit to the maintenance contractor, says Kootenays Regional Director Peter Milburn, it's also credit to an innovative 14-month management contract designed to get the area's maintenance services back on an even keel.

The problem began when maintenance contractor Northland Road Services got into financial difficulties and had its contract taken over by its bonding company, Zurich Insurance, which negotiated an agreement with a new company, Columbia Road Services. When funds ran out, the ministry took over the operation but put the management of maintenance program out to tender. Emcon Road Services, one of the province's most experienced maintenance contractors, was the successful bidder.

"It was an unusual solution," says Milburn, noting the ministry had rarely before entered into a management contract just for maintenance services.

"But it has been effective because it has created an element of stability. Performance has been met, labor relations satisfied and, furthermore, it has shown that the contract area can be effectively managed."

Gordon Chudleigh, bridge area manager for East Kootenays, says the outcome has been better co-operation between the contractor and the ministry, more of a team effort in delivering the maintenance program to the area, which stretches from just east of Creston to the Alberta and U.S. borders, and north to Brisco.

While Emcon's job is to plan and schedule the work, there's a lot more incentive for ministry staff to be involved, says Chudleigh. And that's ensuring ministry and government priorities are being met and safety issues are being addressed.

Emcon's contract runs through June 1999 when the area maintenance contract will be open to bid again.

# Man on the move finds plenty to do in a region undergoing big change

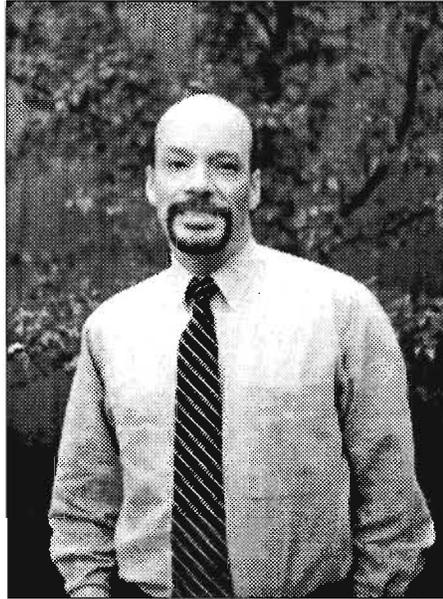
Ever since he joined the ministry upon graduating from University of British Columbia with a degree in civil engineering, Peter Milburn has been a man on the move.

In his 15-year career he's covered most of the province, with postings in Terrace, Prince Rupert, Merritt, Dawson Creek, Fort St. John, Williams Lake, Vancouver, North Vancouver, and Burnaby. He's worked in nine highways districts and managed four.

Last year he was appointed regional director of the Kootenays Region, and he, his wife and their four children moved to Nelson. They have taken to the surroundings like ducks to water. "It's one of the most beautiful spots in B.C.," he avers. For the first time in his life he has become a boat owner. Weekends find the family on a waterfront leasehold on Kootenay Lake just west of Balfour. It's a bit of heaven away from a hectic work schedule.

The things he misses most of the life he left behind are his family, friends and his race horses. He had four thoroughbreds before going to Nelson, but sold three,

keeping a foal which he has duly christened Kootenay Kid.



Kootenays Regional Director Peter Milburn

From racehorse owner to boat owner, Peter Milburn is making a new life for himself and his family in the Kootenays.

Horse-racing is no casual avocation. He's a licensed trainer, as is his brother, a lawyer in Vancouver. Their father, a former school teacher in Victoria, was into horse racing, as was their grandfather, also in Victoria. The king of sports runs deep in the family, as does their roots in the capital region.

Professionally, he's happy with the move to Nelson. As regional director, he works with a staff of 210, somewhat smaller than the 250 employees he supervised as manager of traffic operations in Region 1, the last position he came from. But his responsibilities are now much broader, covering all aspects of highways operations, and that makes a big difference, he says.

Like many British Columbians, he had imagined the Kootenays to be a

kind of sleepy hollow. But now he's a resident, he's changed his thinking.

The region is in transition, he says. "Did you know," he says, "that there was once a smelter in downtown Nelson? And there were 35 mines in the surrounding area. It is hard to imagine what the place was like in those days."

The people of the Kootenays today are more familiar with environmental causes than industrial smokestacks. Here people revel in the area's natural splendor. And the economy reflects it. Tourism and recreation industries are the two biggest growth industries in the Kootenays.

"One of the first requirements of any economic proposal is access - getting people and goods in and out," says Milburn. "MoTH is a key partner in the region's development."

It's no small job for a man - or a region - on the move.

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## Shared facility saves costs, aids students

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says Associate Deputy Minister Claire Dansereau, stressing it will be a shared facility, not merger of staff. "Union representatives will help in developing a detailed partnership to ensure employees interests are protected," she says. An independent assessment of facility costs suggests the partnership could save \$42,000 per year in facility costs.

The shared facility should be ready by January 2000.

# Beating the traffic crunch



Kees van der Werff

***The BCTFA board is investing \$60 million to ease traffic congestion along the busiest highway corridor in the province. It's posing some unusual challenges for the builders, and is requiring a partnership approach.***

Singh Jassal and Kees van der Werff stand at the railing of an overpass on the Trans Canada Highway in Burnaby and look down on the busy road leading to distant Vancouver shrouded in mists.

The broad centre median is taken up with construction materials and equipment screened from the view of passing motorists by two-metre-high orange fencing that defines the construction zone.

At night, van der Werff says, the sight is more impressive as workers build two extra lanes for high occupancy vehicle traffic under the illumination of 4,000-watt spotlights.

The lanes will extend from the Cape Horn Interchange near Port Mann Bridge to Grandview Highway at the Vancouver City limit – a distance of 16 km – and are a key part of a future Lower Mainland HOV network that will reduce the traffic congestion plaguing the fastest growing urban region in Canada. About 200 men and women are working on the site.

More than 120,000 motorists use this stretch of highway in an average day. "There's hardly any slack time," observes van der Werff, operations manager for general contractor B.A. Blacktop. Even at three in the morning "you can never look down the highway and not see a vehicle," he says.

Jassal, project supervisor for MoTH, nods in agreement. In his 28-year career with the ministry he's never before had to contend with such a heavy traffic flow.

Project director Brian Stone of the ministry's Major Projects and Planning department says handling

traffic has been the main challenge of the \$60 million project.

Traffic management is so important that the government departed from the standard tender call, opting instead for an evaluated proposal process that included a detailed traffic and incident management plan from qualified bidders.

BA Blacktop's submission succeeded over two others and was made in partnership with engineering consultants McElhanney of Surrey and traffic specialists HNTB of Bellevue, Washington.

Project director Brian Stone says a lot of preload had to be used on the project because much of the road is built over a bog. Five bridges are being widened and some are being seismically upgraded. The Willingdon westbound ramp is being relocated to eliminate a conflict with traffic exiting to Grandview Highway.

Van der Werff, a paving expert, says the project will require about 120,000 tonnes of asphalt pavement, enough to pave a single lane from Vancouver to Hope.

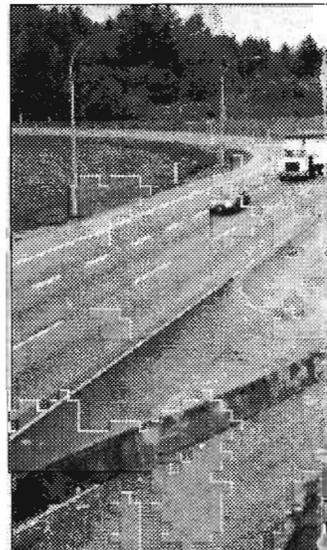
Sixteen high-mast lights are being erected at interchanges, and conventional davit lighting is being installed along the highway between interchanges, making the route totally illuminated at night.

Ducting is also being installed for a fibre optic cable for a future traffic management system.

The HOV lanes are scheduled to open this fall. The project team will continue to monitor the facility for three months before handing it over to South Coast Region for long-term operation. The work is on schedule and on budget.



Singh Jassal heads ministry's on-site



Project site, looking east toward Coquitlam

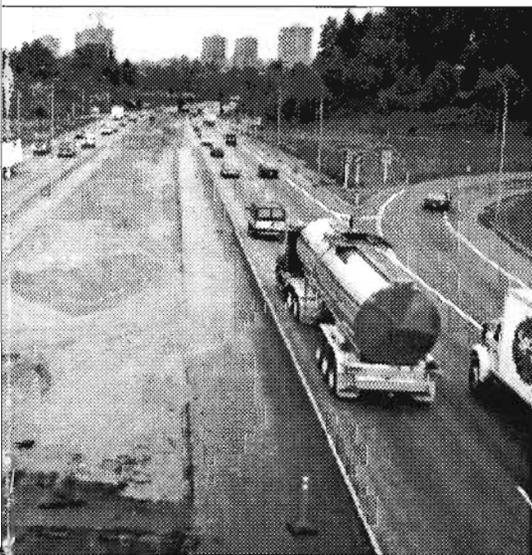
Stone is pleased with the progress and credits the smooth pace to project manager Terry Walton, who has since moved on to manage the construction of the South Surrey Interchange, and the scores of ministry employees, consultants and construction workers involved in the undertaking.

Construction workers are provided through Highway Constructors Ltd. under an arrangement successfully used by the Vancouver Island Highway Project. All major projects worth more than \$50 million are taking the same approach. Van der Werff says employment equity on this project has been exceptionally high – around 30 per cent. “There’s been a real effort to get minority groups well represented on the job,” he says.

Traffic management on the project has been a big ticket item. As part of its incident management plan, B.A. Blacktop installed 20 close-circuit television cameras along the route and set up a trailer where the traffic is monitored



team



uttlam

around the clock.

A wrecker and an incident response truck are kept on 24-hour standby, and a 4x4 has been provided to the RCMP, which has two shifts dedicated to patrolling the site along the route.

An extensive communication plan has been implemented by the contractor under direction of the ministry’s Communications Regional Office in South Coast Region. It includes a separate web site – a first for any major highway project – and an information line both managed by WE Media.

The web site is at

[www.hwy1hovproject.com/hov](http://www.hwy1hovproject.com/hov)

and receives about 300 hits a month. The phone number is (604) 415-6388.

Attention to such details has paid off with remarkably few complaints from the public and a proud safety record. Last month the contractor won a top safety award from HCL.

Van der Werff describes the relationship between his company and the ministry as “very much like a partnership.”

Jassal, who heads the ministry’s 14-member on-site team, says it has been a partnership marked by a high degree of co-operation, good workmanship and excellent quality control

One distinctive feature of the project has been ongoing independent quality process audits by ND Lea & Associates consulting engineers.

These ensure the contractor and MoTH are applying the appropriate quality control and quality assurance process, Stone says.

“We want to avoid mistakes because we are on a very tight schedule,” van der Werff says. “Besides, it’s very important to do things right ... the first time.”

## Youth Job Initiative brings back students

It’s a sure sign of summer at MoTH – a sudden proliferation of younger faces. Our summer students are back, thanks to the government’s Youth Employment Initiative.

Budget cutbacks had made them pretty scarce in recent years, but since April 148 students have found jobs through the University Co-operative and Youth Employment programs.

“I remember what it was like when I was a student and trying to decide on a future career,” says Claire Dansereau, associate deputy minister. “Working during the summer is an important way of exploring some of the options.”

The benefits go both ways, she says. “We provide them opportunities to gain experience and some money; they bring us fresh outlooks and concepts. The skills they develop could make them potential candidates for MoTH jobs in future. Today’s students are the backbone of our ministry’s workforce in the 21st century.”

The student positions cover a wide range of jobs and a variety of projects – paving and construction, systems, survey, design, roadside development and geotechnical and materials engineering to name some.

More than half of this year’s crop are from designated equity groups, including First Nations, women and visible minorities. Equity hiring could help us create a more representative workforce in the future.

# Two little digits cause massive headache

## Ministry computer technicians tackle the millennium challenge

It seemed like a good idea when the computer age was still very young: include only the last two digits of the year to make a six-digit date, and in that way save some space on a chip or punch-hole card for other information. But what the limit of technology enforced back then is straining for a fix as Year 2000 (Y2K) approaches.

How could two little digits cause such a predicament?

It's not hard to understand, says Bill Birney, operations manager with the Information Systems Branch at MoTH headquarters. Dates are crucial to the way many computers and applications run. If the dates are set on a 99-year cycle - as is the case with a two-digit year - then the arrival of a new century may be interpreted as the start of the old one.

And there's the rub. Changing the date to four-digits has been likened to taking apart a space shuttle, examining and testing every bit and piece, putting them all back together and hoping the shuttle will still fly.

The cost is enormous. Worldwide it could reach \$1 trillion. The federal government's tab has been put at \$1 billion. The B.C. government plans to spend \$72.2 million.

Some business experts say the economic impact could be as severe as the U.S. savings and loan crisis of the '80s or the oil crisis of the '70s. A popular book on the subject is titled *Time Bomb 2000*, which gives an idea of what some people think of the underlying risk.

Birney, who has been in the computer business for 34 years, says the problem has been known in the industry from the earliest days, but it wasn't taken seriously until about 10 years ago.

A recent article in the journal *Government Computer* noted that Revenue Canada began implementing four-digit dates as far back as 1990, but Ottawa didn't really start moving on the issue until 1996 when the federal Treasury Board Secretariat established the Chief Information Officer Year 2000 Project. Today, it is the top priority of the government, the Prime Minister recently said

In B.C., the Information Science and Technology Agency is co-ordinating Year 2000 projects with all provincial ministries and publicly-funded agencies. The agency, which reports to the Minister of Advanced Education, Training and Technology, has a web site (<http://www.ista.gov.bc.ca/>) and provides project updates on the second and last Friday of every month.

MoTH began its planning for the Year 2000 program in 1996/97, says Gerry Moore, planning analyst co-ordinator with the ministry's Information Systems Branch. A detailed analysis of the 240 computer applications the ministry uses was completed and Y2K projects were initiated. A strategic review was initiated during the same period and, under the Corporate Improvement and Accountability Branch, a new priority-setting methodology was developed.

Moore says about 50 of the ministry's computer applications will be affected by Y2K. The cost to fix them is estimated at \$5.4 million. The job will involve 1,947 person-weeks of effort, much of it contracted. In all there are 56 projects to convert, replace or abandon non-compliant applications and upgrade underlying technology infrastructure, Moore says.

Failures of the Basic Input/Output System are expected on about half the ministry's personal computers. Y2K is also affecting embedded systems in other electronic equipment, such as traffic controllers and volume counters. The Chief Highway Engineer has investigated the problem and has developed a process to achieve compliance before the millennium arrives.

Birney says 67 Compaq servers are being purchased to replace 81 older model servers. Wang computers are being phased out and this is involving 11 applications.

Some applications may wither away as alternative methods are adopted; some will be replaced by an Oracle data based system and some will be written in Access, he said.

"There's a lot of work to do and not a lot of time left to do it in, but I believe it can be done," he says.

***The double zero problem has been known for years, but it wasn't taken seriously until about 10 years ago, and now it's got the attention of everybody.***

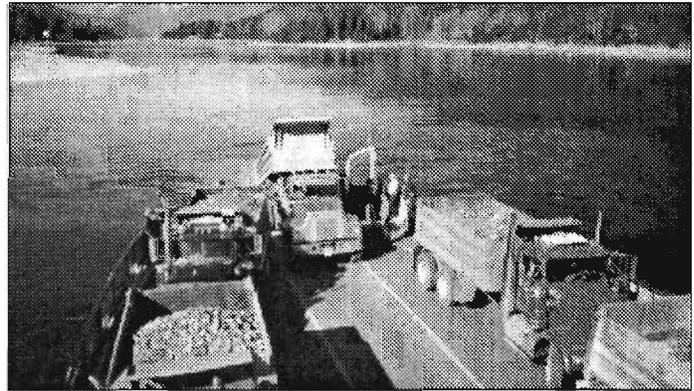
## Balfour crew lend hand to enhance trout bed in Kootenay Lake

An important spawning bed in Kootenay Lake near the village of Balfour has been enhanced thanks to a community effort that involved the ministry ferry MV Balfour as a key player.

The West Arm Outdoors Club had targeted the site after local conservationists discovered much of the gravel deposited there in a conservation project some years ago had washed away, putting spawning of Panask trout at risk.

Kootenay Marine Branch manager Al DeYeager says early in the spring he was approached by the club about using the ferry since there was no practical way of getting gravel to the site without it.

As it happened some ferry employees were also club members and two – Capt. Jack McCulloch and shift engineer Dan MacDonald – volunteered their time to help out. So did six truckers and a number of other club members.



Team effort replenishes gravel at Kootenay Lake spawning ground

On March 29 the Balfour made three trips to the site about three km from the terminal. The trucks backed up, one after the other, dumping their loads off the end of the deck, as Captain McCulloch steered a sweeping course so the gravel would be deposited evenly and to depth of eight to 10 inches.

DeYeager says the cost to the ministry was only the fuel bill. "It was a complete community volunteer project," he says. "But it couldn't have happened without the ministry or the ferry."

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## Team spirit prevails on massive highway project

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attitude. Here the focus is on the delivery of the specific project, not in perpetuating its existence."

Those were the conditions Stuempel accepted when he took on his job four years ago. They are what Singer agreed to when he started in 1990, and the same goes for Haugen, who has been with the team almost from the start too. The three may well be the last out the door when the Yates Street office shuts in 2002. "We're working our way out of our jobs," says Stuempel.

In 1990 the project was expected to be completed within six years. But schedule and scope have both changed over time to accommodate other priorities around the province. Flexibility has been a key feature, but the government has remained committed to the job because of its

importance to Vancouver Island communities and local economies.

Haugen says there are currently about 150 on project team, down from 220 at the peak last year. They include contractors, ministry managers and construction supervisors, but don't include construction workers.

Stuempel says initially the project drew heavily on UMA consultants, because the project's size and scope required engineering expertise that the ministry didn't have in sufficient capacity.

Singer is proud of how the project team has evolved into a seamless group. "Here it has been the product that's been in focus, not who works for whom." And that, he says, has made the difference.

Haugen says people working in a project environment, such as VIHP,

tend to be drawn more closely together than in a program delivery environment. The team becomes greater than the sum of its parts, drawing from the whole its inspiration, he says.

*The race for quality has no finish line, says one poster in the reception area of the Yates Street office. Obstacles are those frightful things you see when you take your mind off your goals, reads another. Teamwork is the fuel that allows common people to attain uncommon goals.*

Singer says the project has been a great teacher. Everyone shares feelings of accomplishment.

"I doubt if I'll ever have another challenge like this," he says. "It has been a unique point in time, and I've been fortunate to be here for that."

It's a view widely held on the project team.

Novel scheme makes sealcoating crew ...

## Masters of their own destiny

Quesnel District Highways Manager Grant Lachmuth, who took over management of the unit in mid-July 1996, says staff downsizing was only one aspect of a larger problem.

Budget cuts meant work crews had to do more with less. Meanwhile, there were pressures from the private sector claiming it could do the same work at a lower per-unit price.

This critical situation was placed before the crew at a meeting with Assistant Deputy Minister Dan Doyle and Central Northeast Region Director Kathie Miller in Vernon in February 1997. But rather than dictate measures, Doyle proposed the crew of 22 men and two women come up with the solution themselves. He recommended they form a board of directors, then develop a business plan setting out their challenges, goals and proposed actions. And he gave them the authority to make necessary changes.

"It kind of shocked us when it first happened," says Ken Cullen, crew supervisor and member of the board. "We were being asked to manage our own affairs. There were lots of things we'd been trying to do for a long time, and now we had to the tools to do them."

The ministry's Article 29 Committee was also supportive of the partnership process, says committee representative Ken Read, a member of the highways paving unit based at Penticton.

In the process of putting a business plan together, the board, which also included Lachmuth, machine operators Glen McPherson, Al Sultz and Clarence Klim and lead mechanic Del Sloat, looked at everything from equipment rental rates to travel costs.

"Everyone jumped in wholeheartedly," says Lachmuth. "Our existence depended on our ability to grasp the challenges and find ways of dealing with them. We were all involved."

"It's the guys in the field who know how to save costs," says Cullen, a union member. "And in this business that's basically making hay while the sun shines."

Sealcoating can't be done when it rains. A rainy day can cost as much as \$20,000, Lachmuth says.

To reduce downtime, a decision was taken to concentrate work in regions 2 and 3 where weather is more favorable. Another decision was made to contract out crew services to maintenance contractors or districts in early spring, before the sealcoating season gets really under way. By doing so, overhead costs were almost completely recovered.

In reviewing operations, the board felt they could get by with fewer pieces of equipment. Overall, the per-unit cost was cut by 25 to 35 per cent. Lachmuth says of the 425 km of highway sealcoated last year by the crew, between 80 and 100 km were added to the initial program because of improved efficiency. A highlight was sealcoating 50 km of the Coquihalla Highway, the first time the crew had tackled a highway of such magnitude. Normally, sealcoating is confined to highways with far less traffic flow.

Ric Miedinger, who has succeeded Lachmuth as manager of the unit, says the mandate to find economies continues. "We're all involved and concerned about delivering a high quality product at a competitive price," he says.

The dependency on weather and praying for rainless days hasn't changed, but the approach to the job definitely has.

"Now we're masters of our own destiny," says Cullen.

*"There were lots of things we'd been trying to do for a long time, and now we had to the tools to do them."*