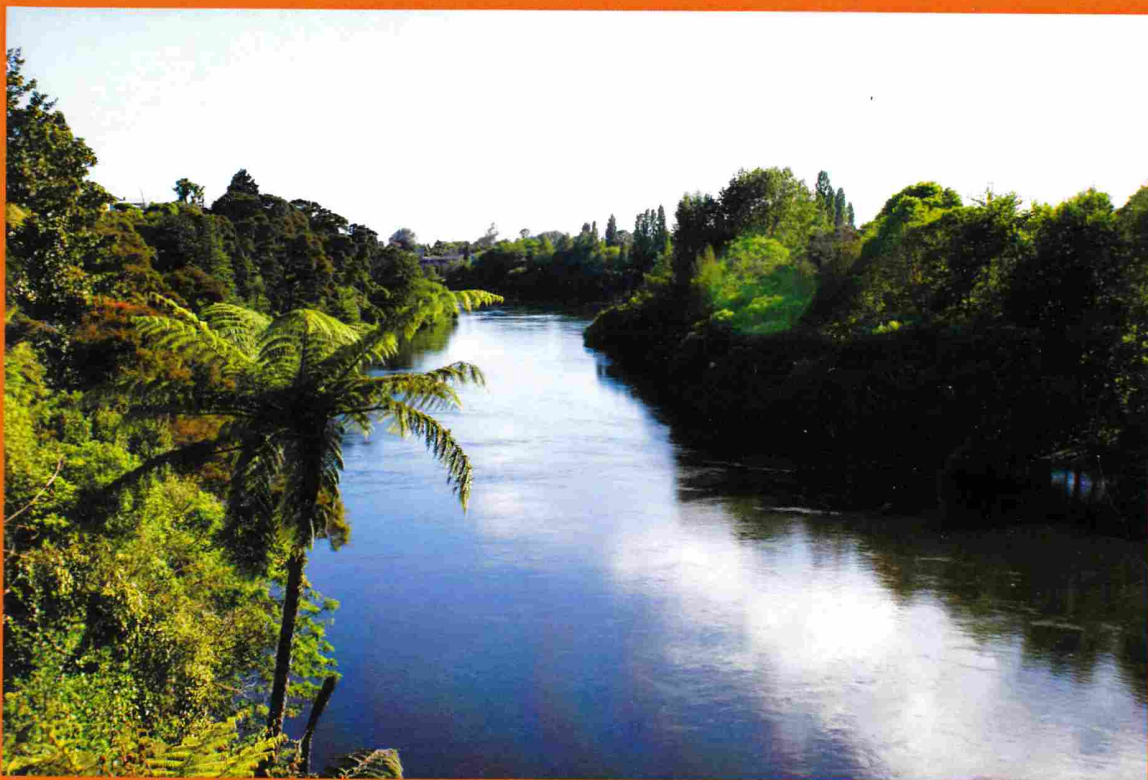


VOLUME 4, No 9

SUMMER 2010

THE HEALTH ENGINEER



THE JOURNAL OF
THE NEW ZEALAND INSTITUTE OF
HEALTHCARE ENGINEERING

The New Zealand Institute of Health Estate and Engineering Management

The Institute has the following objectives: -

- * To promote interest in Technical aspects of Health Estate and Engineering Services
- * To pool technical knowledge and experience and to disseminate this knowledge to others in the industry.
- * To encourage and assist members to improve their skills and qualifications
- * To participate in the development and promotion of quality and safety standards in all aspects of Health Estate and Engineering Services.
- * To promote Management skills applicable m Health Estate Technical Management

Membership of the Institute is open to the many people who are involved in the technical aspects of Estate and Engineering in the Health Service and may be in either Member or Associate Member grades depending on the occupational position currently held.

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The NZIHE Executive Committee

From the left :- Tony McKee, President, Bill MacDougall, Tony Blackler, Doug Moller, Allison Blackler, Nigel Wing, Kevin Bardsley, Jim Logan, Max Christensen.

THE HEALTH ENGINEER

The Journal of the NZ Institute
of
Healthcare Engineering

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Inner back cover page – Institute executive committee.

Cover Photo :- A tranquil Waikato River,Hamilton on the Friday morning walk and quiz.

The health and viability of any organization depends on good communications. Our objective is to produce a good quality health engineering magazine. The magazine should inform readers, it should provide a forum for discussion, encourage interest in all aspects of the technical side of health facility management in its widest sense.

President's Report Feb 2010

Greetings! We are now well into the New Year. It is full steam ahead as we turn to face the many challenges in front of us as a sector.

Our Annual Conference in Hamilton last November went off extremely well. Congratulations to the organising committee (Kevin Bardsley, Graham Dudfield and the team). There was certainly something meaningful at the conference for all of us in both the general sessions and within the streams themselves. The presentations were excellent with a good number, covering a fine range of subjects. Of particular note to me was the thought-provoking welcoming address by Waikato DHB CEO, Craig Climo and also the tongue-in-cheek entertaining presentation from Waikato's Ian Wolstencroft. It was hard to choose when it came to the technical presentations as they were all of current interest and well thought through. One area I am presently interested in is the developments of asset tracking devices and we were well served with three excellent presentations on this subject.

I suspect the pressure this year for those of us in DHB's will be to continue to provide professional advice and support in a time of even more change, especially to the overall structure of the public health sector. We read that the Government "wants our public health service to deliver *better, sooner, more convenient care* for all New Zealanders." They want to "reduced waiting times, better individual experiences for patients and their families, improved quality and performance, and a more trusted and motivated health workforce." As both users of health services and as employees, we would all like to see these improvements.

We well know that change is inevitable and from experience, it can also often provide a good opportunity for improvements. It will be interesting to see how we as individuals and as DHB's, can do our part. I am sure our editor Jim Logan, would appreciate hearing your story of how you or your group have been adding value to your workplace.

For my part I would like to share about a small initiative that has been of great benefit to me over the past 12 months or so and that is the development of an informal email network by DHB facilities manager type people. When someone has a query they send out an email to the group. Those who have the knowledge and can find the time respond. A variety of items have been covered for example, what other DHB's are doing about something, have they encountered a similar situation, how was it handled, compliance subjects, benchmarking issues, etc. Some really good information is being transferred throughout the sector from this simple forum. A massive advantage has been to reduce the "re-inventing of the wheel" syndrome. There may be initiatives that you are involved with that we could include in our next Journal?

Included within this issue is a copy of my report to the AGM in Hamilton in November 2009 - especially for those who were unable to attend. It was great to see a good number attend last year. Let's see if we can attract even more at this years AGM.

Kind Regards
Tony McKee
President NZIHE.

ENGINEER / BIOMED of the Year, 2010

We are currently seeking nominations and submissions for Engineer/Biomed of the Year for 2010. These need to be in by the end of October.

Scope of Award

The award shall be open to Facilities Engineers and Biomed's who are full time employed in providing services to Hospitals in New Zealand.

PRESIDENT'S REPORT for AGM 2009

It has been another busy year in the health sector. The government has been in office a year now and recently released a new health strategy. Although the details have yet to be worked out the message is clear, we cannot continue in the way we have, money will be even tighter and significant improvements in the delivery of health services is being demanded. Making regional collaboration work seems high on the agenda. It remains to be seen what this means in practice for our local DHB's.

Your Executive Committee continues to re-evaluate our modus-operandi and where appropriate make changes in the way we and the Institute operate. We welcome feedback and suggestions on anything you see could help in this regard. Some initiatives and interesting items over the past year to mention include:-

Name Change

A good consultative and interactive process was followed to ensure our new name more accurately reflects who we represent. Positive feedback has been received from a number of sources. Hopefully the change in name will also afford us all the opportunity for a change in profile in the sector.

Webpage

Another significant change has been the development of our new Webpage. After fine tuning the site went live at the end of July. Please check that you can access the members section. Initial feedback has been positive and the page continues to have regular 'hits.'

Original feedback from members was to incorporate a member's only section as well as a Forum section. We have nominated two representatives to champion the Institute streams. Tony Blackler for Clinical Engineering (inc Biomedical) and Max Christensen for Facilities (which can be as broad as you want). Feel free to contact them with your contributions on any current issue for the two streams, or any other relevant comments for discussion and feedback, etc.

Treasurer and Membership Role

Alison Blackler has made a significant contribution during this past year for the Institute with the operation of these key roles. Her active follow-up on outstanding subs has not only resulted in increased income but also increased awareness of who we are. One of this coming years tasks for Alison will be to explore the benefits to the Institute of applying for Charity status

BOC Award

We continue to work with BOC on further enhancements to the application and approval process for this prestigious award. More on this at the Conference dinner and within the next addition of the Institute Journal.

Regional Meetings

Please continue to support your local regional meetings. The next ones are scheduled for March 2010. Contact Tony Blackler for South Island, Bill MacDougall for northern region and Gavin Carey-Smith for lower North Island. Reports from these meetings will be published in the Journal.

ANZEX

Welcome to this years Australian ANZEX representative Scott Wells and his wife Gail. Great to have them join us at the Conference and visit a number of DHB'. I am confident you will provide the usual Kiwi welcome to our Australian guests.

Also I am pleased to announce the selection of Doug Moller as our 2010 ANZEX representative.

Institute Journal

On behalf of you all I would like to extend our heartfelt appreciation to Jim Logan for all the hard voluntary work he puts into the production and publication of our Journal. We could not do it without you Jim. Many thanks to yourself and Monica for the tremendous commitment you make to our Institute.

Kind regards for 2010.

Tony McKee, President NZIHE

countries in our use of CHP in the UK," admits Giles Vidgeon. "Finland, for instance, generates around 50% of its electricity using combined heat and power, largely facilitated by an infrastructure where centralised power stations are connected directly to towns and villages. Here residents tend to have a heat meter as well as the more traditional electricity and water meters." Asked the typical "lifetime" of a Cogenco CHP unit Dudley McDonald says: "When you consider that if you run one of the engines for 1,000 hours it is equivalent to driving a modern car for 50,000 miles you can appreciate how robust, reliable and well-made the engines, alternators, exhaust gas, and plate heat exchangers all have to be. We typically service the units every 1,000 hours and reckon most will be running for about 8,000 hours a year. We generally find that after some 150,000 hours some of the major parts are wearing out and it is time to consider replacement. "In a hospital scenario, of course, any major failure of electricity or gas could have disastrous consequences for patient care. Thus, while all our CHP engines are designed for maximum reliability, most healthcare sites will be running their own gas boilers and other plant either alongside them for significant periods or will have them ready to fire up should a Cogenco unit for any reason be temporarily out of service." One of the longer standing installations of a Cogenco CHP unit is at the Guildford Nuffield Hospital in Surrey, which has had its 167 kWe electrical output CHP system since 1998 when the hospital was built. Close to the unit, which incorporates a

Nedalo engine, is an absorption chiller unit, used to provide cooling during periods of low heat demand both to the Nuffield Hospital's own wards, which incorporate 54 beds, and to a further 24 housed within the same building used by the day unit of the sizeable Royal Surrey County (NHS) Hospital nearby.

'Very few breakdowns'

Estates and facilities engineer Dave Perkins said of the equipment, which is operated and maintained under an eco2synergy contract recently renewed: "Basically all I have to do as far as the Cogenco-supplied plant is concerned is check for any leakage and generally keep an eye on the CHP unit and absorption chiller. Cogenco's engineers are first-rate in the event that we need any help with the system's operation. The CHP unit provides electricity, hot water and lighting to the hospital during the day, with our four Broag Remeha boilers used at night and occasionally at other times when demand is at its peak. To date there have been very few breakdowns, and just the occasional replacement of parts, such as a number of heads, which is hardly surprising give that we have been running the CHP system for 11 years pretty well non-stop. We import around 40 kWe of our electrical base load from the National Grid, with the CHP system providing around 165 kWe of electricity. Generally the equipment has run without a hitch."

October 2009

N.Z. Institute of Healthcare Engineering

65th Annual Conference 2010

To be held in the
CROWNE PLAZA HOTEL, AUCKLAND
On the 4th & 5th November 2010.

Mark it in your diaries now. More information later.

NZIHE Annual Conference: Partner's Programme

Having just returned from Hamilton, I can say without a doubt that the ladies put on a fantastic programme for the partners.

Day one began with Annette driving our small bus to...what is this?...yes it is...Mitre 10! Quickly it was revealed that we were not to shop for tools but rather enjoy a nice coffee in the Mitre 10 Café. With a sigh of relief, I enjoyed a drink and then had a great time shopping at The Base. The rain and drizzle cleared long enough for us all to have a delightful lunch and carriage ride behind the Pirongia Clydesdales. What a great idea and what graceful animals! Even though the picnic was moved indoors, they put on a very tasty lunch.

On day 2 we joined our partners for a competitive race/walk along the river trying to find answers to the various questions before us. I still don't know why one spot was called a witches lair or who the Doctor was on Anne Street, but it was good exercise. When the ladies were able to escape again, Annette drove us to the Sculpture Park @ Waitakaruru Arboretum. This old quarry has truly been transformed as it is now filled with some amazing sculptures surrounded by native and non native plants and trees, ponds and vast views. Allison showed great skill as she hopped down 30 or so steps on one foot in record time! (I do hope your knee is on the mend by now) We then filled ourselves at the Woodside Estate and quickly got through our coffees to make it over to the river cruise. Nothing is better for a full stomach than sitting in the sun enjoying the sights from the Waikato river. I am only disappointed that no one was moved enough to get up and dance as Michael Jackson played on the loudspeakers. I could tell many were tempted when "Beat it," came on (I know I was!). The Vilagrad Winery put on an amazing meal for the annual dinner. I am just so thankful that partners can be included at this yearly event.

So, thank you Hamilton representatives and especially to Annette Bardsley, our driver and hostess. Once you get out of first gear you really do go all the way! (inside joke) I hope to see you all again next year, perhaps with a few more.

Jeanette Carey-Smith

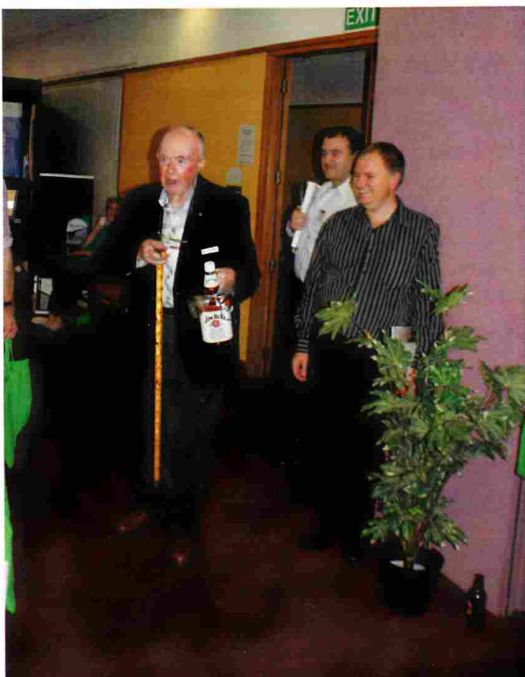




Three new NZIHE Life Members, Tony Blackler, Jim Logan and Bob Duncan with their “better halves” –Allison, Monica and Chris.



Major Sponsor, Gallagher Security Management Systems' display



Our oldest member, Lex Smith, after winning a large bottle of Bourbon at Trades Night.



The spectacular view at the Vilagrad Winery, the venue for the annual dinner.



Trades Night - Filtercorp display. Lyn and Bill MacDougall in the foreground.



The assembled delegates at Conference opening

Conference Highlights from a facilities point of view.

At the Exec meeting just before the Conference we overlooked appointing someone to do this write up so I have managed to resurrect some thoughts and photos.

Right from the opening on Thursday morning everything happened on time including Craig Climo's welcoming address where he called "a spade a spade" in giving a rundown on the present state of the Health System. A very direct person.



Craig Climo

He was followed by Peter Francis, not long off an international flight, and speaking on behalf of our major sponsor Gallagher Security Management Systems about "Essentials for Economic Recovery".

The next two speakers were senior officers from Waikato District Health Board, Jan Adams, Chief Operations Officer and Ian Wolstencroft, project director for Health Waikato's Services and Campus Redevelopment (SCR).

Our last speaker for the opening morning was Brad Cabel of Canterbury District Health Board talking about the National C&A Oral Health Project where mobile dental units will be able to arrive at primary schools to deliver dental treatment to its pupils. He included a run down on the various dental vans being manufactured at local Hamilton firm Action

Motor Bodies, how they will be used and possible problems which could be encountered.



Brad Cabel

The afternoon session commenced with Darryl Carey, Chow Hill director talking about inpatient design trends. He was followed by Jacquie Mitchell, General Manager at Thames Hospital who outlined the problems encountered after heavy rain caused a nearby stream to overflow into the hospital knocking out power and heating. This stream has flooded parts of the hospital about three times in recent years. This outage was quite prolonged and Jacquie explained how they coped with this crisis. Incidentally we went to Thames after the Conference finished and saw the new extensions and also the work on the stream to prevent it flooding the hospital again.



Jacquie Mitchell

To round off the first day of speakers Stephen Pazin, Ministry of Health, Wellington gave a talk about the future of health funding in the light of the economic situation. Unfortunately his views were quite austere and did little to brighten the horizon.

To brighten us all up after a tea break were the site visits. One to Gallagher Engineering the other to Action Motor Bodies. The Motor Bodies tour was very interesting in being shown the various sizes of the mobile dental clinic vans being manufactured – one berth, two berth and massive articulated trailers being fitted out. Some were almost complete while others were at varying stages of construction. An extremely interesting site visit and tied in well with Brad Cabel’s talk.



The NZIHE AGM was held on return to Kingsgate Te Rapa. The Trades Exhibition followed in the evening, sponsored by Hawkins. Friday morning first thing we were off to a walk and quiz along the banks of the mighty Waikato river. One or two of the quiz questions were a bit obscure but this was fully compensated by the wonderful scenery

Back at Kingsgate Max Christensen gave a great talk about the “Clip on Operating Theatres” at Hutt Hospital with some interesting photos taken during construction.

After morning tea we had Bill Sageman speaking about hospital security and many of the associated problems. He was followed by Michael Mueller of IPSCO rounding off the morning and speaking about efficient filter systems for patient care.

David Hipkins of Wormald NZ presented the latest fire safety technology after lunch.

It was then the turn of Australian ANZEX delegate Scott Wells from Queensland who gave a talk on energy efficiency in the ward with plenty of projected charts backing up his talk.



Scott Wells

After both sessions combined again Noel Hunt, from Kiwi Host, gave a very interesting talk about identifying and caring for your customer. Tony McKee, President NZIHE and 2009 ANZEX delegate to Australia, was next up speaking about his trip. He then carried on and presented his closing comments as this part of the 2009 conference wound down.

The Annual Dinner was held at Vilagrads historic Waikato Vineyard restaurant at Rukuhia. This brought back special memories for Monica and I as our youngest daughter, Kate, was married here ten years ago. It was a great evening, plenty to eat and drink, time to relax and chat to friends, good food, a highly motivated and interesting after dinner speaker, William Pike who kept us all enthralled as he told of how he lost a leg on Mount Ruapehu during an eruption and his subsequent battle to recover his health.

To add to my memories of ten years ago I now have some more as three of us were made Life Members of the New Zealand Institute of Healthcare Engineering. Namely Tony Blackler, Bob Duncan and myself, Jim Logan. A very memorable two days.

Bill Macdougall muses on how he receives a refreshed perspective after the conference.

Some personal thoughts on Conference.....

I always feel energised on returning to work after attending the NZIHE conference and the Hamilton event was no exception. It's like I get a dose of enthusiasm and it provides the kick start I need and a willingness to engage again my energies to push ahead with my own personal vision of improvements which I can bring to healthcare. Not sure if it is as a result of hearing and meeting all the amazing dedicated people who are doing great things daily, guilt that I do not seem to be as productive as them anymore, or just having time out away from the pressures of minutiae and tedious bureaucracy which allows me to recharge the batteries and roll up my sleeves to refocus my energies.

Don't know –

But I do know it works.

Perhaps it is being surrounded by like minded enthusiasm – it rubs off. It is said that if you are surrounded by negativity that rubs off too!! So beware being worn down in the doom and gloom of bad news stories we read in the newspapers and every day routine.

Even the Facilities papers – many of which I struggle to follow – empower me as I realise the potential that these engineers have, to save megabucks in healthcare organisations.

It's at times like this that I am so pleased at the initiative that the Institute took in fostering and encouraging Biomed's to amalgamate with the Facilities disciplines.

The conference itself was run with its usual efficiency. The papers were interesting and informative. Catching up with old friends and making new acquaintances - finding out who is doing what more efficiently than I am, still makes it worthwhile.

For me the highlight of the whole conference was William Pike's presentation at the annual dinner. This is a young man who was trapped on Ruapehu 2 years ago when the mountain erupted. With a core temperature resembling an icicle when he was brought down from the mountain and the subsequent loss of a leg he did it hard. Survival was touch and go and then extensive rehab at Waikato Hospital and the "leg shop" was gruelling and painful. Although standing before us he looked fit and healthy there would have been dark times in his recovery which he did not dwell on. It seems to take me 6 months to get over a cold and here he was, two years later, standing before us so full of

enthusiasm and vitality, I couldn't help but marvel at his positive dynamic attitude.

This setback was just not going to defeat him. It puts a lot of things into perspective when you meet someone like this. I sat there listening to his incredible story and it brought it home to me just how trivial and minor are my petty quibbles and complaints.

In talking to other attendees I realised that I was not the only one who was affected in this way.

In summary, there is more to attending the conference than just the technical papers and industry info and this was one example where, I am sure, everyone who was present was touched by this man's story. I left the conference feeling humbled at being one of life's fortunates, determined to find and take the positives out of any situation that arises and keen to make a difference.

How long this feeling will last I don't know? Hopefully at least until the next conference when I can plug in for my annual dose of vim and vigour.

Cheers

Bill Mac



William Pike

A Conference report from a Biomed viewpoint.

By Walter Hermsen.

My first time at the NZIHE conference, and did I enjoy it....? Yes it was great! The conference was held in the Kingsgate Hotel, Te Rapa, Hamilton on the 5th- 6th November 2009. We, myself and my wife Ezmé checked into our room at 0800 am. By 0900 am I was listening to the opening address of Tony Mckee (NZIHE President). Ezmé departed on the Ladies Tour into Hamilton to a place called The Base.

What a great opportunity to hear speakers from all over the country. From Waikato DHB: Jan Adams (COO) talked about - Quality and Safety in Patient Care - how this will impact on funding. Ian Wolstencroft (Project Director) presented a humorous but fascinating presentation on - Is there any Humour in Project Direction?.

From Thames Hospital, Jacquie Mitchell (General Manager) talked about - Emergency Site Management in a crisis - showing photos of some past flooding in Thames. Just too much to mention it all. Both afternoon site visits sounded interesting so Bill and I split with him going to the Mobile Oral Health Initiative and I attended the afternoon site visit to Gallagher, showing their Security Management Systems. Very interesting to see all the injection moulding of various designs. I even got complementary washing pegs. That evening at the Trade show we met all the industry role players from all over New Zealand. As we walked back to our hotel room at 10:30 pm Ezmé told me the Ladies Tour had been to a famous movie place, where they rode on an open wagon drawn by Clydesdales horses in Pirongia.

The second day kicked off with an early morning walk, next to the beautiful Waikato River. Once back at the Hotel and eager to absorb more, I listened to: David Venning about – Passive Asset Tracking, Chris Raynes shared his aviation experience on – Certification of air ambulance structures. Scott Wells from Aus presented - Energy efficiency Opportunities in Health Care Facilities and Patient Environment. I remember more speakers but will not list them all.

That evening in the bus on the way to the annual gala dinner, Ezmé filled me in on the Ladies Tour. With excitement she told me about the visit to the Waitakaruru Arboretum outdoor sculpture gallery, showing exotic stuff. Their afternoon ended with a boat trip on the famous Waikato River. The bus arrived at the lovely vineyard hosting the seminar's closing banquet. Good food, company and wine.

The guest speaker, William Pike, who survived the Ruapehu eruption 2 years ago and lost a leg in the process was an inspiration.

Reflecting back on the past 2 days....this was GREAT.

Walter Hermsen



The guys on the ETL stand doing a bit of mutual advertising



Scott Wells delivering his paper.

Report on the South Island Regional meeting of the NZIHE held in Christchurch on Saturday 20th March ,2010.

Thirteen members from around the South Island gathered at Christchurch Hospital laboratory seminar room for this year's first meeting. This was a very good turnout and represented Otago/Southland, Sth Canterbury and Canterbury. Sadly we were missing our colleagues from the West Coast & Nelson/Marlborough. While we were meeting Allison & Sue went off to peruse the garden centres.

Our guest speaker Paul Rodgers, an exceptional engineer, who has taken his abilities to the private sector with his company Spire Consulting, talked to us about the importance of our jobs, the importance of asset records and maintenance during periods of recession. How when there is good money about the "hero " engineers of construction are the applauded group but in recession periods we can be the heroes, by clearly identifying assets, creating business plans for the finance team and careful planning can in fact give us money for upgrades.

Reports on the Executive Meeting held on 18th March at Middlemore Hospital were tabled by Nigel Wing. Tony talked on the Standards development of AS/NZS3003 & 3551. A passionate plea for executive members, BOC engineer of year nominations was made and nominations for 2011 ANZEX delegates were proposed. We were briefed on the conference results from 2009 and plans for Auckland 2010.

Afternoon tea was held in the adjoining arboretum and Allison's cream scones were a treat but being good health conscious males we went gently on the cream!

A quick review around the table followed ,with some interesting projects from the CDHB Christchurch chimney & boilers to Kaikoura's hospital plans, through to the University of Otago's simulation clinic. We adjourned to the Pegasus Bar, but the cricket was not going well!

Tony's wonderful ability to find good restaurants paid dividends when we experienced the fabulous food of "Holy Smoke " on Ferry Rd. 14 of us enjoyed a very convivial dinner. Our next meeting **will be in Greymouth during September date TBA.



An enjoyable end to the day



Those attending at the afternoon tea break. (One more behind the camera)