

CUMMINGS ECONOMICS

38 Grafton St (PO Box 2148) CAIRNS Q 4870

ABN 99 734 489 175

Tel 07 4031 2888 Fax 07 4031 1108

Email: cummings@cummings.net.au

Website: www.cummings.net.au

Ref: J2456



ppt 1: "CURRENT INFRASTRUCTURE & THE CHALLENGES IT PRESENTS TO A GROWING FAR NORTH QUEENSLAND MINING SECTOR?"

ADDRESS TO THE CAIRNS & MINING CONFERENCE

By W S (Bill) Cummings

07 October 2011

2: WHEN HODGKINSON GOLD FIELD MINERS LED BY BILL SMITH FOUND A ROUTE DOWN THE RANGES TO TRINITY INLET IN 1875, THEY DEMONSTRATED THREE THINGS:

- 1) THE IMPORTANCE OF LINKING MINERAL FIELDS TO SEAPORTS.
- 2) THE FACT THAT TRINITY INLET WAS THE BEST PORT SITE ALONG THE FAR NORTHERN COAST.
- 3) THE FACT THAT THE RANGES IN THE AREA WERE COMPARATIVELY LOW WITH ONLY A NARROW BAND OF THICK SCRUB TO TRAVERSE.

ALL THESE FACTORS PLAYED A ROLE IN THE DECISION TO BUILD A RAILWAY FROM TRINITY INLET TO SERVICE THE HINTERLAND MINERAL FIELDS, RESULTING IN CAIRNS BECOMING THE REGION'S MAJOR PORT REGIONAL SERVICING CENTRE.

3: THE GEOGRAPHICAL REALITIES LARGELY REMAIN THE SAME.

ONE OF THOSE FOR THE CAIRNS / FAR NORTH QUEENSLAND REGION IS THAT NO PART OF THE REGION IS MORE THAN 300 KM FROM THE SEA LEADING TO OPPORTUNITIES FOR SHORT TRANSPORT TO A NUMBER OF COASTAL PORTS.

FAR NORTH QUEENSLAND HAS NOT JUST ONE BUT 5 SEAPORTS HANDLING BULK EXPORT COMMODITIES.

4: IF YOU TOTAL THE TONNAGES SHIPPED, YOU FIND THAT THE REGION IS FAR FROM BEING WEAK IN CARGO SHIPPING – EXCEEDING THE TOWNSVILLE REGION, NORTHERN TERRITORY AND TASMANIA, ALMOST ON A PAR WITH SOUTH AUSTRALIA, AND NOT THAT FAR BEHIND SOUTH EAST QUEENSLAND.

5: WHAT I FIRST WANT TO COVER IN THIS ADDRESS IS THE INFRASTRUCTURE RELATING TO DEVELOPMENT OF HINTERLAND MINE OPPORTUNITIES.

AND IN CONSIDERING THESE QUESTIONS, I JUST WANT TO PUT SOME BASIC REALITIES ON THE TABLE.

6: ONE OF THE MOST IMPORTANT ELEMENTS IN FREIGHT-FLOWS IN THE REGION IS THE LARGE INWARD MOVEMENTS OF A WIDE RANGE OF FREIGHT BY ROAD AND RAIL FROM THE SOUTH, AND OF BULK COMMODITIES OF PETROLEUM PRODUCTS AND FERTILISERS BY SEA.

7: GIVEN THAT ABOUT 60% OF THE REGION'S POPULATION IS IN CAIRNS, THE BULK OF CONSTRUCTION AND MUCH OF THE REGION'S MANUFACTURING AND SERVICES SECTOR, THE RAIL, ROAD AND SEAPORT FREIGHT HUB LOCATED IN THE PORTSMITH AREA, DOMINATES INWARD MOVEMENTS, AND IN TURN, PROVIDES A BASE FOR REDISTRIBUTION AROUND THE REGION, MAINLY BY ROAD TO SURROUNDING CENTRES, BUT ALSO BY SHIPPING SERVICES TO THE NEAR NORTH.

8: THE PATTERN FOR OUTWARD MOVEMENTS IS MORE DIVERSE WITH BULK SUGAR AND MOLASSES EXPORTED VIA THE TERMINALS AT CAIRNS AND MOURILYAN.

OTHER PRIMARY PRODUCTS (MAINLY FRUIT AND VEGETABLES FOR SOUTHERN AUSTRALIA) AND CATTLE ARE MOVED SOUTHWARDS OUT OF THE REGION BY ROAD WITH SOME BY RAIL.

KAGARA'S ZINC AND COPPER CONCENTRATES HAVE BEEN MOVING IN TRIPLE ROAD TRAINS OR QUADS VIA THE INTERIOR GREGORY HIGHWAY THROUGH TO TOWNSVILLE'S SUNMETAL ZINC REFINERY AND FOR EXPORT.

9: THE THIRD REALITY IS THAT THE PROSPECTIVE MAJOR PRODUCTION AREAS OF AN EXPANDED MINING SECTOR IN THE CAIRNS HINTERLAND ARE WITHIN SHORT DISTANCES OF THE PORTS OF CAIRNS AND MOURILYAN, POTENTIALLY CUTTING OFF HUNDREDS OF KILOMETRES OF HAULAGE FOR OVERSEAS SHIPMENT, REDUCING SHIPPING COSTS, ESPECIALLY IF LOWER GRADE ORES AND PRODUCTS ARE BEING LOOKED AT.

A CONSIDERATION OF HOW THIS MIGHT BE ACHIEVED FOR DIFFERENT COMMODITIES WILL DEPEND ON A NUMBER OF FACTORS.

10: CLEARLY, DEPOSITS IN THE SOUTHERN SECTIONS OF MT GARNET SOUTH ARE CLOSER TO MOURILYAN.

THOSE IN THE NORTH, MAREEBA – CHILLAGOE ARE CLOSER TO CAIRNS.

11: THE NEXT FACTOR WILL BE THE INHERENT CHARACTERISTICS OF THE PORTS. THIS MAP SHOWS CAIRNS AND MOURILYAN PORTS AT THE SAME SCALE AND HIGHLIGHTS THAT MOURILYAN IS MORE RESTRICTED BUT COULD BE DEVELOPED TO HANDLE ONE ADDITIONAL WHARF AND SHIP.

12: CAIRNS CAN CURRENTLY TAKE ABOUT 7.

13: HINTERLAND MINERALS ARE LIKELY TO COME AS BULK OR MORE AND MORE THESE DAYS AS CONTAINERISED CARGO.

MOURILYAN AT PRESENT IS GEARED TO BULK SUGAR EXPORT BUT NEEDS TO BE GEARED TO HANDLE BULK MINERALS. IT WOULD ALSO NEED TO BE GEARED TO HANDLE CONTAINERS.

CAIRNS IS CURRENTLY HANDLING OVER ITS GENERAL WHARVES, BULK IMPORTS OF FERTILISERS AND DOMESTIC AND INTERNATIONAL CONTAINERS, IS GEARED WITH QUARANTINE FACILITIES AND HAS POTENTIAL HOLDING AREAS NEXT TO THE WHARVES. ONE OF THE SUGAR TERMINAL SHEDS MIGHT BE ABLE TO BE CONVERTED.

OTHER PROSPECTIVE PORT DEVELOPMENTS IN THE REGION WILL INCLUDE RIO TINTO'S BOYD POINT DEVELOPMENT, POSSIBLY PORT MUSGRAVE/SKARDON RIVER, BATHURST HEAD AND POSSIBLY KARUMBA, TO SERVICE ADDITIONAL MINING SHAPING UP IN THE GULF AREA.

- 14: OF COURSE, THE OTHER FACTOR IS THE BASICS OF THE LAND TRANSPORT SYSTEM.**

THIS TABLE GIVES THE HEIGHTS OVER WHICH THE DIFFERENT ROADS FROM THE COAST TO THE TABLELANDS TRAVEL SHOWING THE ORIGINAL SUPERIORITY OF THE RAILWAY AND THE KURANDA ROUTE THAT LED TO THE FOUNDING OF CAIRNS.

- 15: THIS SLIDE ILLUSTRATES THE FACT THAT THE KURANDA RANGE ROAD GOES THROUGH ABOUT 7KM OF RAINFOREST BELT, THE PALMERSTON ABOUT 20KM.**

HOWEVER, THE PALMERSTON WAS UPGRADED IN THE 1960'S PRE WET TROPICS MANAGEMENT. THE MOVES TO UPGRADE THE KURANDA RANGE ROAD COMMENCING IN THE LATE 90'S FOUNDERED.

THE ROAD DESIGN WAS THE ULTIMATE IN AVOIDING ANY ENVIRONMENTAL DAMAGE AND FOUNDERED ON COST.

AS ONE OF THE LOCAL TOURISM LEADERS WHOSE COACHES USE THE ROAD COMMENTED, "ALL WE NEEDED WAS A KINGSWOOD. WHAT THEY ARE DESIGNING IS A FERRARI".

- 16: THIS HAS LED TO A SITUATION WHERE EVEN THE MOST BASIC STANDARD FREIGHT EFFICIENT VEHICLES USED NATIONALLY, B-DOUBLES, CANNOT PASS OVER THE RANGE.**

IF A B-DOUBLE COMES UP TO CAIRNS AND WANTS TO GO UP TO MAREEBA TO PICK UP RETURN FREIGHT, IT HAS TO GO DOWN TO INNISFAIL AND THEN UP THE PALMERSTON.

17: FOR HINTERLAND MINING DEVELOPMENT, LACK OF ROAD DEVELOPMENT AND QUICK SHORT LINKAGE WITH THE PORTS OF CAIRNS AND MOURILYAN FOR BOTH OUTPUT AND INPUT IS A DEVELOPMENT CONSTRAINT.

THE KURANDA RANGE ROAD NEEDS TO BE TAKEN UP TO A LEVEL WHERE IT CAN SAFELY TAKE B-DOUBLE SIZE VEHICLES AS SOON AS POSSIBLE. THE LINKAGE FROM THE PALMERSTON TO MOURILYAN AND SEAPORT ITSELF NEEDS TO BE IMPROVED.

18: THIS TABLE SHOWS THE NUMBER OF HEAVY VEHICLES PASSING OVER THE VARIOUS RANGE ROADS ILLUSTRATING THE DOMINANT ROLE OF THE KURANDA RANGE ROAD.

HUNDREDS OF THOUSANDS OF TONNES OF SAND, AGGREGATE AND LANDSCAPING SUPPLIES HAVE TO COME DOWN IT EACH YEAR FROM THE TABLELANDS TO CAIRNS AND THE TABLELANDS HINTERLAND, PENINSULA AND GULF REQUIREMENTS FOR FUELS, FERTILISERS AND A WIDE RANGE OF OTHER SUPPLIES GOES UP THE RANGE. MINING EXPANSION WILL INCREASE THIS.

19: A FEATURE OF MODERN MINING IS THAT CENTRAL PROCESSING FACILITIES ARE DEVELOPED AND ORE HAULED IN BY TRUCK FROM SURROUNDING DEPOSITS. ONE CRITICAL LINKAGE IS THE UNSEALED BACK ROAD BETWEEN CHILLAGOE AND MT GARNET.

AS PART OF IMPROVING THIS ROUTE, THERE COULD BE AN OPPORTUNITY TO EXTEND THE BACK ROAD BETWEEN WESTERN TRIPLE ROAD TRAIN INTERIOR ROUTE WEST OF THE RANGE THROUGH TO MAREEBA.

OF COURSE, MINERALS ARE OFTEN CARRIED BY RAIL.

20: THE EARLIER MINING EXPANSION LEFT REMNANTS OF AN OLD RAILWAY SYSTEM CONSTRUCTED TO TAP THE MINING CENTRES THROUGH TO ALMADEN WITH BRANCH LINES TO MT GARNET, CHILLAGOE AND EINASLEIGH/FORSAYTH.

DOES THIS OLD LINE PROVIDE US WITH A PRACTICAL 'KINGSWOOD' SOLUTION?

OLD INFORMATION THAT CONTAINERS COULD NOT BE CARRIED THROUGH THE HERITAGE LISTED TUNNELS ON THE KURANDA LINE HAS PROVED TO BE ERRONEOUS. THE LINE IN ITS PRESENT STATE WILL TAKE TWO CONTAINERS ON A STANDARD WAGON IN FROM THE ARRIGA SUGAR MILL SITE, WEST OF MAREEBA.

WEST OF THERE TO ALMADEN THE LINE WILL TAKE ONE CONTAINER ONLY PER STANDARD WAGON.

MICHAEL LEE, HERE TODAY, REPRESENTS A NEW TYPE OF COST EFFICIENT PRIVATE OPERATOR WHO ALREADY RUNS TRAINS ON THE LINE AND HAS LOOKED INTO THE POSSIBILITIES. HE WILL TALK BRIEFLY DURING THE PANEL SESSION.

21: FURTHER AFIELD, UPGRADING OF THE GREGORY DEVELOPMENTAL ROAD LEADING DOWN TO CHARTERS TOWERS AND CENTRAL QUEENSLAND IS ALREADY TAKING PLACE AND SOME WORKS ON WIDENING THE GULF DEVELOPMENTAL ROAD THROUGH TO GEORGETOWN AND CROYDON. COMPLETING THE SEALING OF THE HANN HIGHWAY LINK THROUGH TO THE FLINDERS HIGHWAY COULD PROVIDE A MORE EFFICIENT ROUTE FOR THE REGION'S FIRMS TO SUPPLY THE MT ISA AREA.

22: OF COURSE, THE GROWTH OF MINING IN THE WEIPA AREA WILL IMPROVE THE CASE FOR UPGRADING THE PENINSULA DEVELOPMENTAL ROAD.

HOWEVER, THIS WON'T HAPPEN FOR SOME TIME AND THE IMMEDIATE IMPACT WILL BE TO LIFT THE DEMAND FOR SHIPPING SERVICES FROM CAIRNS TO WEIPA, ESPECIALLY DURING THE CONSTRUCTION PHASE.

AND THIS BRING US TO SHIPPING SERVICES TO SUPPLY OTHER MINING TO THE NEAR NORTH. WE WILL HEAR FROM SILENT WORLD WHO HAVE COMMENCED SERVICES TO PORT MORESBY.

OTHER PROSPECTIVE SERVICES COULD BE TO OK TEDI, TO LAE TO SUPPLY MINES IN THAT AREA, TO LIHIR GOLD MINE, THE GOLD RIDGE MINE IN THE SOLOMONS AND PERHAPS EVEN THE BOUGAINVILLE COPPER MINE IN THE FUTURE, IF IT REOPENS.

CAIRNS' GENERAL CARGO WHARVES CAN HANDLE AN EXPANSION WITH RELATIVELY MINOR INVESTMENT.

23: CRITICAL TO ACHIEVING THESE TRADES WILL BE BASE LOAD CARGOES.

LIME IS A PRIME INPUT INTO MANY OF THE MINING OPERATIONS, AND IS BEING IMPORTED TO SOME OF THE PNG MINES FROM AS FAR AFIELD AS NEW ZEALAND AND EVEN TURKEY.

THERE ARE EXTENSIVE DEPOSITS IN THE HINTERLAND AND WITH SOME INVESTMENT, LIME COULD BE SUPPLIED FROM THIS REGION IN CONTAINERS PROVIDING A BASE CARGO FOR SOME OF THE POTENTIAL SERVICES.

OTHER BASE LOADS COULD COME IF MINING COMPANIES COULD BE CONVINCED TO ESTABLISH CAIRNS AS A FREEPORT AND WEIPA TYPE CONSOLIDATION AND SHIPMENT POINT.

MEETING THE SPECIAL REQUIREMENTS OF MINES FOR CERTAIN COMMODITIES BOTH IN PNG AND LOCALLY WILL BE IMPORTANT, AND DEVELOPING SPECIAL FACILITIES AND ARRANGEMENTS TO HANDLE THESE WILL BE IMPORTANT.

MOURILYAN MIGHT PLAY A SPECIAL ROLE IN SOME OF THIS.

BACK LOADING WILL ALSO BE IMPORTANT WITH MAIN PROSPECTS APPEARING TO BE TIMBER, COPRA MEAL AND PALM KERNAL MEAL STOCKFEEDS.

24: IMPORTANTLY FOR THE LONG TERM FUTURE OF THE REGION, SOME OF THE MINERAL CONCENTRATE CONTAINERISED CARGOES COULD PROVIDE A BASE LOAD FOR REGULAR SHIPPING LINKS WITH ASIA THAT COULD ALSO OPEN UP EXPANDED MARKETS FOR THE REGION'S AGRICULTURAL PRODUCTS AND INVOLVE DIRECT IMPORTS FROM ASIA, INCLUDING MINE RELATED INPUTS.

FOR THIS TYPE OF TRADE, CONTAINER CRANE FACILITIES WOULD PROBABLY BE NEEDED.

25: THE OTHER CRITICAL INFRASTRUCTURE RELATES TO ENERGY.

CURRENTLY THIS REGION IMPORTS LARGE AMOUNTS OF ELECTRICITY FROM CENTRAL QUEENSLAND.

CAN LOCAL GENERATION BE ESTABLISHED?

POSSIBILITIES INCLUDE COAL SEAM GAS. ANOTHER IS GEOTHERMAL PROSPECTS THAT WILL BE ADDRESSED LATER.

THE OTHER ISSUE RELATES TO DELIVERY OF ELECTRICITY TO MINES IN REMOTE AREAS AND A REPRESENTATIVE OF ERGON WILL PARTICIPATE IN THE PANEL AT THE END OF THIS SESSION.

26: BY AND LARGE, AIRPORT INFRASTRUCTURE FOR FLY-IN SERVICES IS EXCELLENT. BUT A QUESTION THAT WILL BE DISCUSSED LATER HAS COME UP OF WHETHER THERE IS A NEED TO FOLLOW INITIATIVES IN PERTH AND THE GOLD COAST TO ESTABLISH SPECIAL TERMINAL FACILITIES FOR FLY-IN WORKERS.

27: JUST AS IT WAS VITAL TO THE DEVELOPMENT OF TOURISM OPPORTUNITIES TO UPGRADE CAIRNS AIRPORT TO TAKE WIDE BODIED JETS DIRECT FROM OVERSEAS IN 1984, IF THE REGION IS GOING TO REALISE THE OPPORTUNITIES PRESENTING THEMSELVES DUE TO EXPANSION OF MINING WITHIN AND OUTSIDE THE REGION, ATTENTION TO INFRASTRUCTURE NEEDS WILL BE IMPORTANT, ESPECIALLY PORTS, LAND TRANSPORT AND DEVELOPMENT OF SHIPPING SERVICES.

ppt 28: End.

IMMEDIATE CAIRNS HINTERLAND:

- RE ESTABLISHMENT OF CAIRNS AND MOURILYAN AS PORTS FOR OUTWARD SHIPPING OF MINERALS IN BULK OR CONTAINERS AND INWARD TRANSPORT OF MINE INPUTS.
- LAND TRANSPORT UPGRADING TO CARRY MINERALS AND INPUTS BETWEEN HINTERLAND MINES AND CAIRNS AND MOURILYAN SEAPORTS AND THE MAJOR LAND TRANSPORT FREIGHT HUB AT PORTSMITH.
- ELECTRICITY GRID EXTENSION.

PENINSULA AND GULF

- NEW PORT DEVELOPMENT AT WEIPA AND POSSIBLY OTHER LOCATIONS.
- EXPANSION OF CAPACITY AT CAIRNS SEAPORT TO HANDLE MORE COASTAL SHIPPING SERVICING WEIPA AND OTHER POSSIBLE PENINSULA AND GULF PORTS.
- INFRASTRUCTURE FOR ADDITIONAL FLY-IN AIR SERVICES.

PAPUA NEW GUINEA

- LIKELY EXPANSION OF CAPACITY AT CAIRNS SEAPORT TO HANDLE MORE SHIPPING SERVICES TO A RANGE OF PNG MINES AND PORTS APART FROM PORT MORESBY.
- INFRASTRUCTURE FOR ADDITIONAL FLY-IN AIR SERVICES.

NORTH WEST & CENTRAL QUEENSLAND

- IMPROVED ROAD LINKS (EG. GREGORY DEVELOPMENTAL ROAD AND HANN HIGHWAY LINK, UPGRADE PENINSULA DEVELOPMENTAL ROAD).
- INFRASTRUCTURE FOR ADDITIONAL FLY-IN SERVICES.