

Capital Investment Major Areas Of Investment



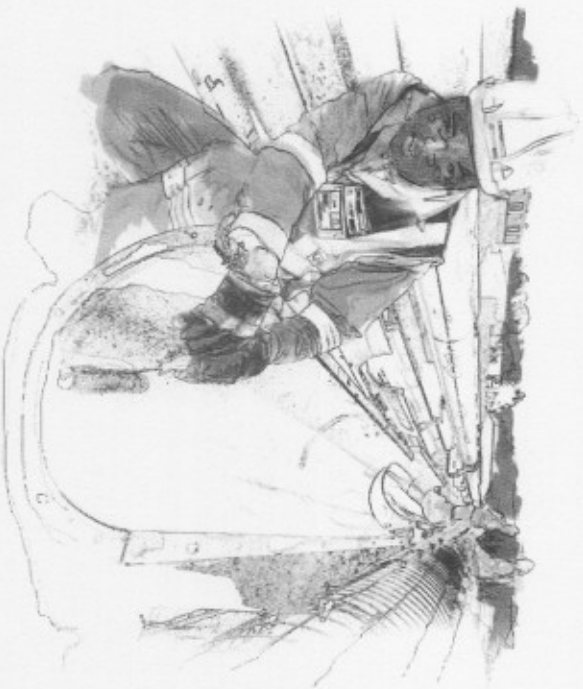
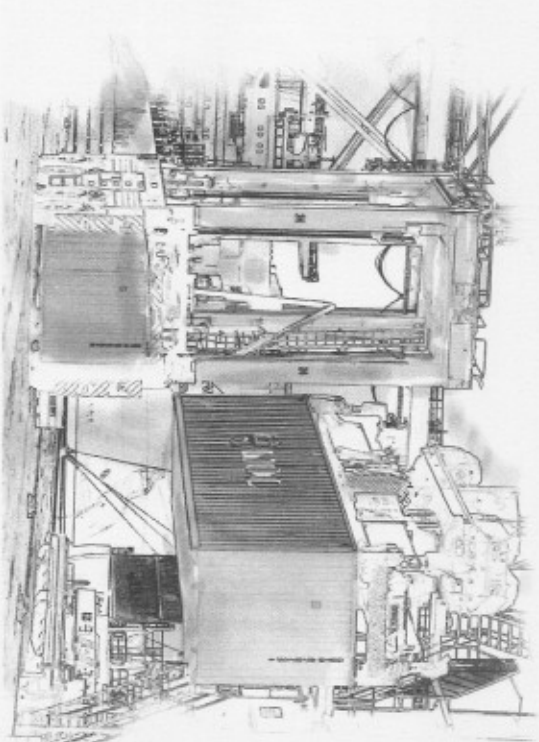
Area of Investment	Existing capacity	Capacity Created over 5 years	Future Capacity	Utilisation 2015/16
Coal Line R14.5bn	63 mtpa	18 mtpa	81 mtpa	100%
Ore Line R10.2bn	46 mtpa	14.7 mtpa	60.7 mtpa	100%
General Freight R39.0bn	73 mtpa	38 mtpa	111 mtpa	100%
Maritime Containers R14.7bn	Terminals: 4.6 TEUS Ports: 4.9 mTEUS	Terminals: 1.5m TEUS Ports: 3.4 mTEUS	Terminals: 6.1 mTEUS Ports: 8.3 mTEUS	Terminals: 88% Ports: 65%
Bulk R2.5bn	Terminals: 76.5 mtpa Ports: 255mtpa	Terminals: 14mtpa Ports: 5mtpa	Terminals: 90.5 mtpa Ports: 260 mtpa	Terminals: 98% Ports: 85%
Breakbulk R1.7bn	Terminals: 14 mtpa Ports: 24.3 mtpa	Mainly sustaining	Terminals: 14 mtpa Ports: 24.3 mtpa	Terminals: 72% Ports: 51%
NMPP R11.2bn	4.0 billion litres/a	4.4 billion litres/a	8.4 billion litres/a	73%

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Future Infrastructure Investment Plans beyond 5 years



Beyond the five-year plan, a number of infrastructure development opportunities have been identified as part of the Transnet Infrastructure Plan. These projects are highlighted below and are shown at un-escalated preliminary values.

• **Development of the Durban Airport site into a dig out port equipped with:**

- 16 container berths (4 phases), 5 automotive berths (future phases), 4 bulk liquid berths (future phases)
- 1st Phase: 4 container berths creating 2.4mTEUs annual capacity. Ultimate container capacity at the dig out port will be 9.6mTEUs.
- Cost for the first phase is in the region of R50bn which provides platform for future expansion

• **Waterberg coal:** Opportunity for domestic and export market, where estimated haulage could be between 80mtpa and 135mtpa.

• **Increasing the existing export coal channel above 81mtpa:** The cost of the expansion is still being determined. Further investment will be rolled out in conjunction with industry and other private sector participants;

• **Iron ore expansion beyond 60mtpa:** Expansion plans to increase the channel to 93mtpa to support the increase in demand for export iron ore. The manganese export terminal through Ngqura/Saldanha is linked to this project. Transnet has committed to vacating the existing facility at Port Elizabeth by 2016/17 and options have been explored to transport manganese through Saldanha or Ngqura. Capacity needs to be increased in phase 1 from 4,2mtpa to 12mtpa;

• **Ngqura Container Terminal** equipping of the remaining two berths to create capacity of 1,2 million TEUs;

• Inland terminals (City Deep, Kaserne and Pretoria);

Based on high level (desktop studies) estimates for the major infrastructure projects, not all opportunities are affordable by the Company on the strength of its balance sheet and alternative options will be explored including funding from private investors.

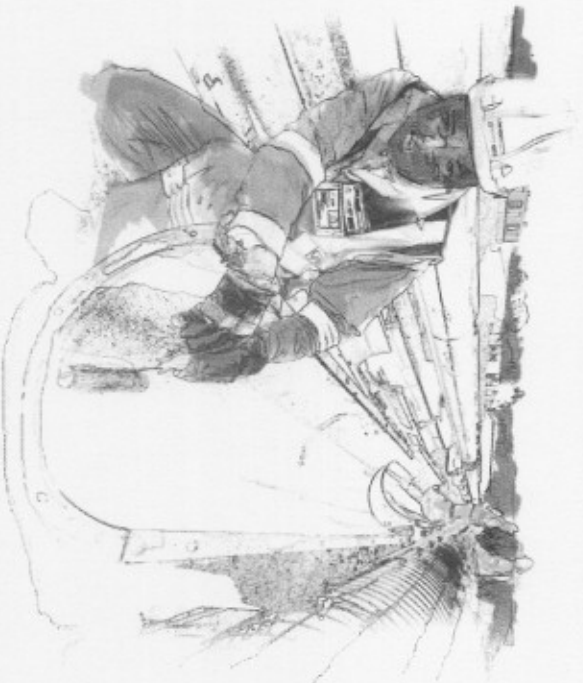


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New Multi-Product Pipeline Project

delivering on our commitment to you



**Presentation to the Portfolio Committee on Public Enterprises
14 June 2011**

NMPP: A STRATEGIC ASSET FOR SOUTH AFRICA



NMPP Investment: Strategic Intent

- To replace the existing 45-year old Durban-Johannesburg Pipeline (DJP - 12 inch) urgently as it is running at full capacity and nearing the end of its design life.
- To increase the capacity on this critical route (Durban-Gauteng) to meet projected demand and to ensure security of supply for the long term.

Investment Overview

- 555km of 24 inch pipeline (mainline) and 160km of 16 inch pipelines.
- NMPP as a hybrid of "Greenfields" and "Brownfields" project executed over long distances with difficult terrain would have significant cost and time delivery issues.
- Upgradable to meet projected demand to 2035 - assuming high GDP growth in future.
- 70 year design life.

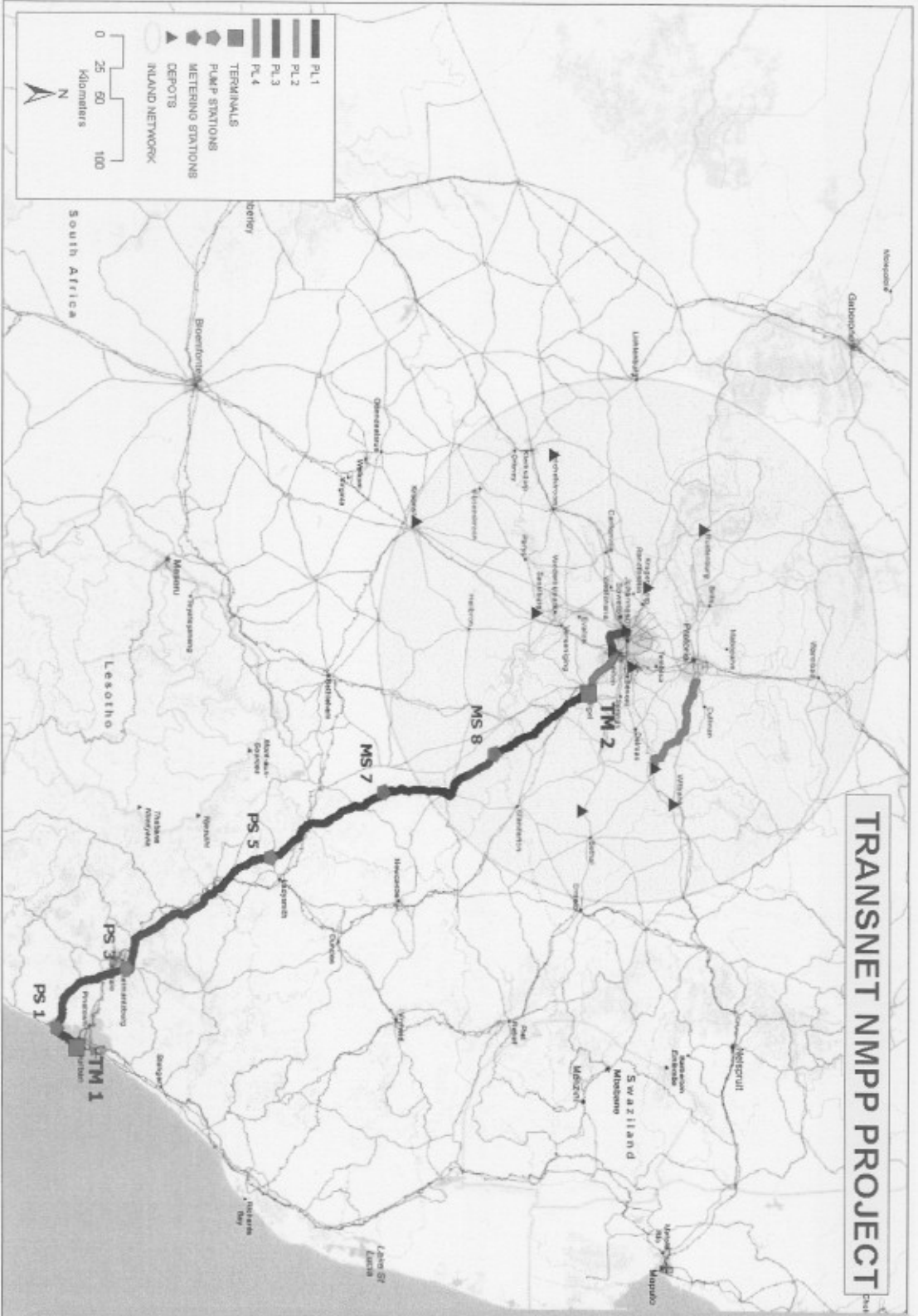
- The Moerane Commission Report on fuel shortages in late 2005 noted, that additional pipeline capacity was ***"urgently required to supply the inland markets"*** and recommended that **Petronet (now Transnet Pipelines) expedite the development of a new pipeline from Durban to Gauteng.**
- The DME in its strategic document entitled **"The Energy Security Master Plan – Liquid Fuels (August 2007)"**, states that: ***"When it comes to infrastructure investments in the South African liquid fuels sector, in the next 5 years, the single most important recommendation is the approval of a new appropriately sized, properly integrated pipeline, which should come on line in the 2nd quarter of 2010 at the latest."***

Urgent drive to secure the supply of fuel to the heart of the economy (Gauteng area)

NMPP: GEOGRAPHICAL OVERVIEW OF THE PROJECT



TRANSNET NMPP PROJECT



- The project is made up of:
 - 555km 24" Trunkline
 - 160km 16" inland pipeline network
 - 3 Inland pump stations
 - 2 Product receipt and accumulation terminals
 - Sophisticated Automation, Control, Communication and Security Systems

NMPP SYSTEM OF ASSETS DESIGN ATTRIBUTES



- **Design enables capacity upgrade of 200%**
 - Minimised future investment requirement
 - No upgrade of existing infrastructure required
- **Multiple Product Transportation**
 - Transportation of ULP 93 & 95, Low and Ultra Low sulphur diesel, and Jet fuel
- **Power outage protection**
 - Full start up and back-up generator power
 - Dual redundant HV Power supply
- **World class pipe coating system**
- **Traverses Natural Terrain**
 - Products must travel 1800m up the escarpment
 - Almost 500 wetlands
 - River, major road crossings
 - 900 different land owners
- **State of the art automation and control**
- **Sophisticated security systems**
 - Blast resistant construction
 - Camera surveillance of unmanned sites
 - World class pipeline leak detection and isolation
 - High integrity automated fire protection systems
 - Compliance with National Key Point (NKP) standards
- **Security of supply**
 - 3 days cover for product supply interruption
 - High integrity and redundancy in design
 - Conservative design standards
 - 70 year assets design life-cycle
- **Green design**
 - Aesthetics
 - Noise abatement
 - Environmental Management Plan compliance
 - Biodiversity Off-set planning
 - Low emission and leak protected accumulator design
- **Opportunity engineering**
 - Fibre optic cabling
 - Existing control and communications infrastructure upgrade
- **Urban Construction Site**
 - Majority of 160km 16" pipeline construction was done through urban areas and large portions of the 24" pipeline traverses densely populated areas and public infrastructure and road services

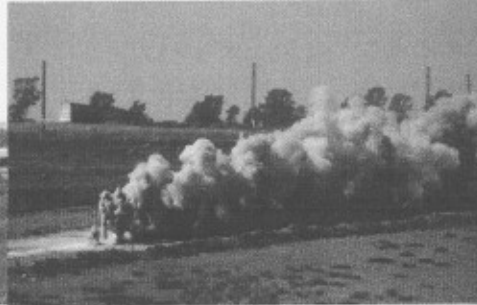
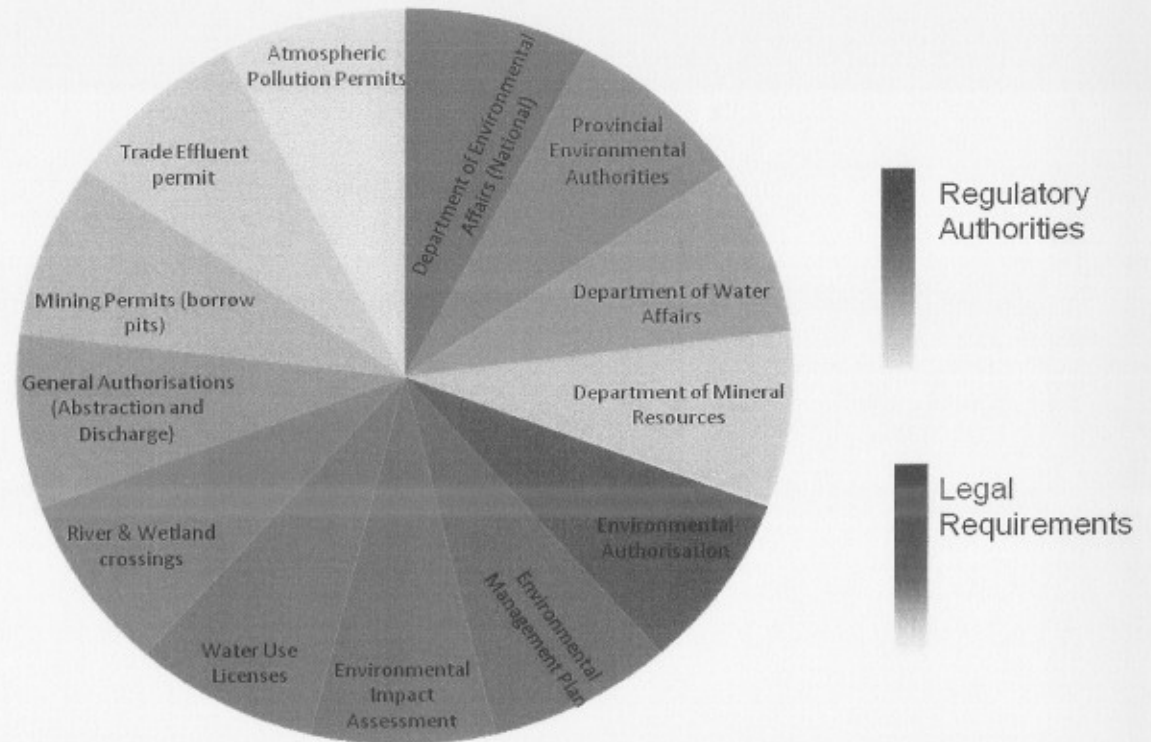


NMPP APPROACH AND METHODOLOGY

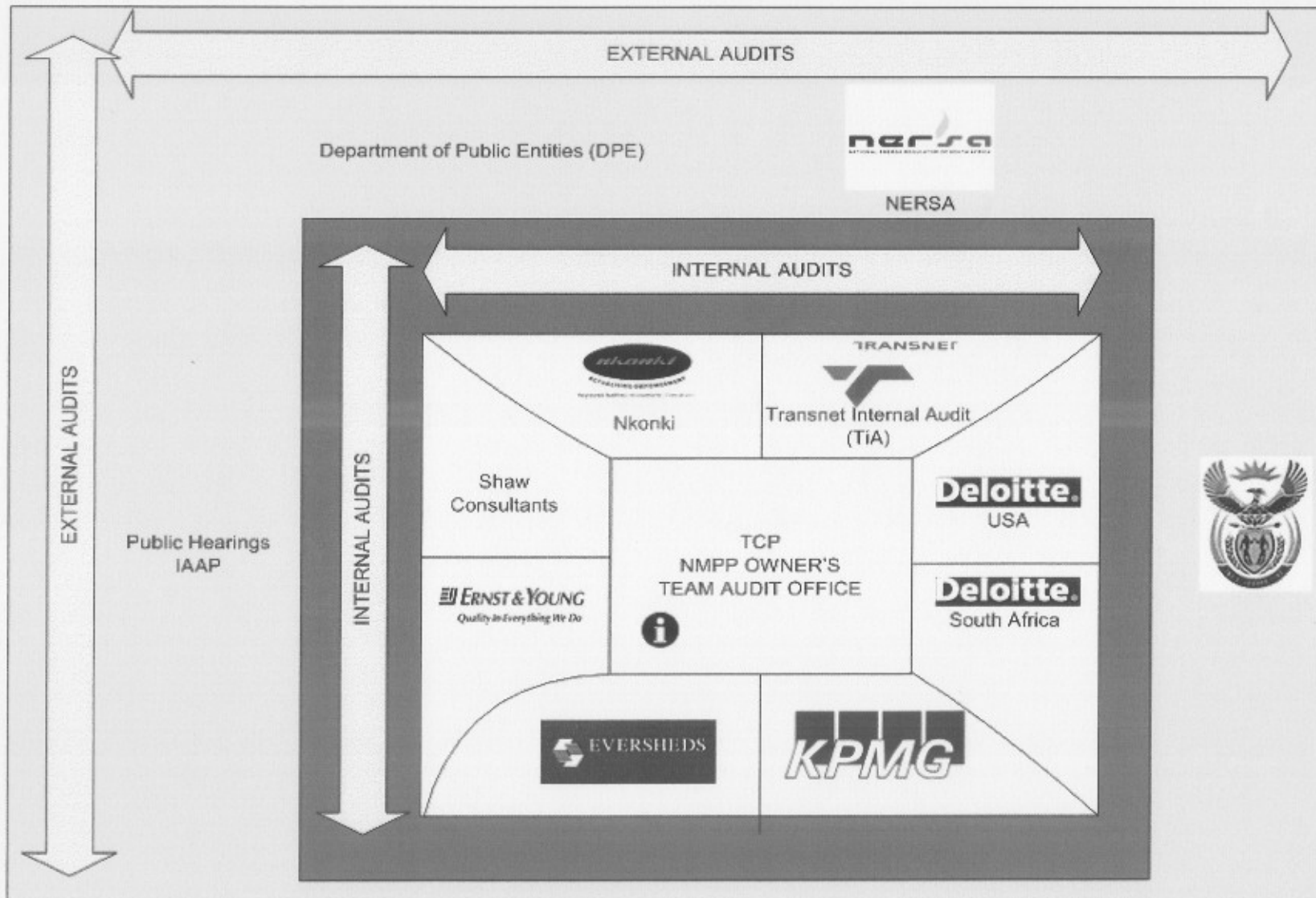


- **Schedule**
 - The primary driver
- **Delivery Strategy**
 - Engineering, Procurement, Construction & Management (EPCM)
 - Limited Main Procurement and Construction Contractors
- **BBBEE**
 - BEE spend (>50%)
 - Construction Industry Development Board (CIDB) procurement methodology
- **Job creation**
 - Local labour target (>80%)
 - Over 2100 jobs created
 - Stimulation of local businesses (e.g. Vrede B&Bs)
 - Skills development (e.g. welders, pipe fitters)
- **Regulatory Universe**
 - Identification and compliance
- **Corporate Social Investment (CSI)**

Regulatory Universe



NMPP: GOVERNANCE AND ASSURANCE



Audits in progress:

- Governmental (DPE)
- Technical (Shaw Consultants)
- Group Legal (Eversheds)
- Cost Review (Deloitte USA)
- Financial Statements of Transnet Group (Deloitte SA)
- Forensic Reports (Nkonki)

Audits in Draft Status:

- Prudency (KPMG)
- Governance (Ernst & Young)

Other:

- NMPP Gateway Review
- NMPP Compliance Audit
- NMPP Execution Process Review

NMPP: CORPORATE SOCIAL INVESTMENT (CSI) – CURRENT INITIATIVES

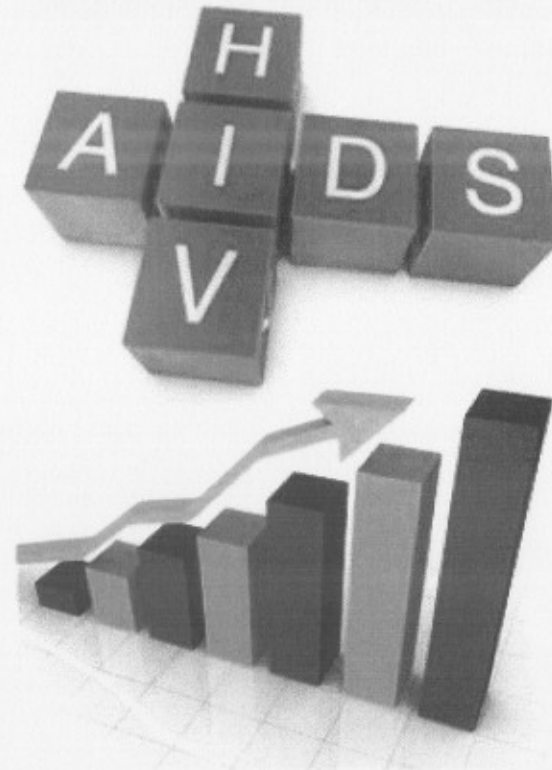
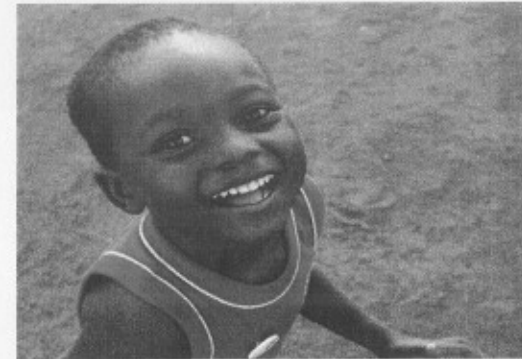


To date 12 Projects have been identified and approved by Transnet Pipelines and the NMPP Alliance, with a planned investment of R120 million over the duration of the project. R11,6 m has been spent to date which has created 257 jobs.

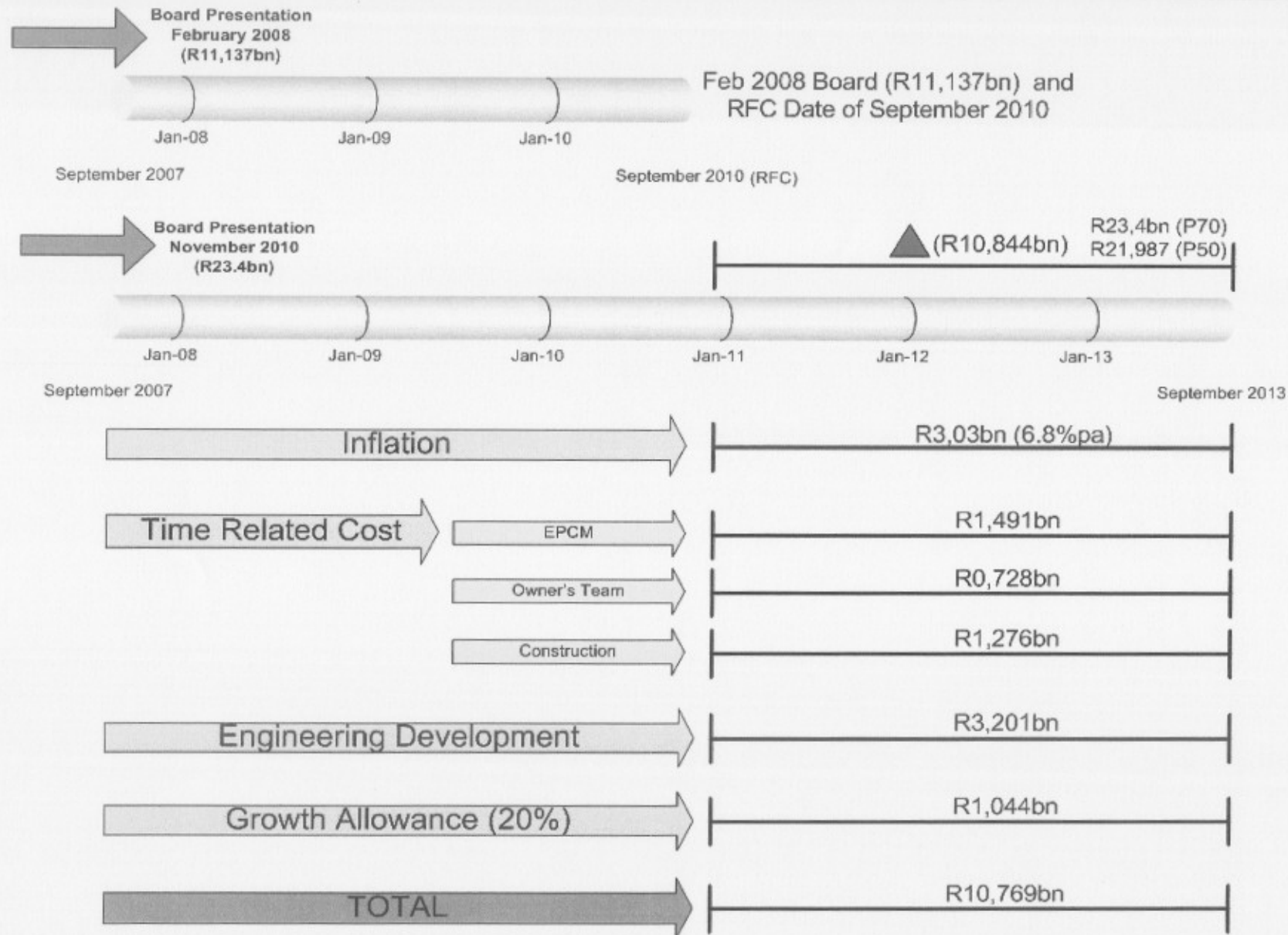
Projects undertaken have been primarily in the education and skills development areas. Focus has been on foundation phase education for young children and teacher training and development.

In addition, the NMPP Project Team have been a catalyst in providing developing contractors with skills in entrepreneurial business practises, S.H.E. and procurement.

2000 Community members trained on the construction of the pipeline and specialist skills like welding
200 people trained in small business principles (B & B)
Project Management for Transnet's own employees
BBBEE spend of 55% achieved on the project



NMPP: SUMMARY OF COST AND SCHEDULE MOVEMENT



NMPP: SCHEDULE & SCHEDULE DRIVERS



Key Project Milestones		Current Approved Baseline	Latest Forecast RFC	In Operation* / Forecast RFO
Project Start				03-Sep-07
1	Pipeline 4 Waltloo & Kendal	15-Dec-10	-	25-Apr-11
2	Pipeline 3 Alrode to Langlaagte	15-Jan-11	-	31-May-11
3	Pipeline 2 Jameson Park to Alrode		-	31-May-11
4	Pipeline 1 Durban to Jameson Park	01-Sep-11	28-Jul-11	31-Dec-11
5	Pump Station 1	01-Sep-11	20-Aug-11	31-Dec-11
6	Pump Station 3		26-Aug-11	31-Dec-11
7	Pump Station 5		30-Aug-11	31-Dec-11
8	Metering Station 7		29-Aug-11	31-Dec-11
9	Metering Station 8		29-Aug-11	31-Dec-11
10	MAC / MCC Intermediate Bypass	-	29-Aug-11	31-Dec-11
11	MAC / MCC	01-Sep-13	01-Sep-13	31-Dec-13
11	Terminal 1 Intermediate Bypass	30-Jun-11	10-Aug-11	31-Dec-11
11	Terminal 1	01-Sep-13	31-Jul-13	31-Dec-13
11	Terminal 2 Intermediate Bypass	30-Jun-11	10-Aug-11	31-Dec-11
11	Terminal 2	01-Sep-12	25-Jul-12	31-Dec-12
Project RFC/RFO Complete		01-Sep-13	01-Sep-13	31-Dec-13

Pipelines network 2;3 and 4 (16" auxiliary line in northern network) was ready for operations in May 2011

Schedule Drivers

Land acquisition

Engineering Development

Pipe Manufacture & Delivery

Field Joint Coating (Inland Network)

Contractor Performance

Statutory Approvals and Appeals

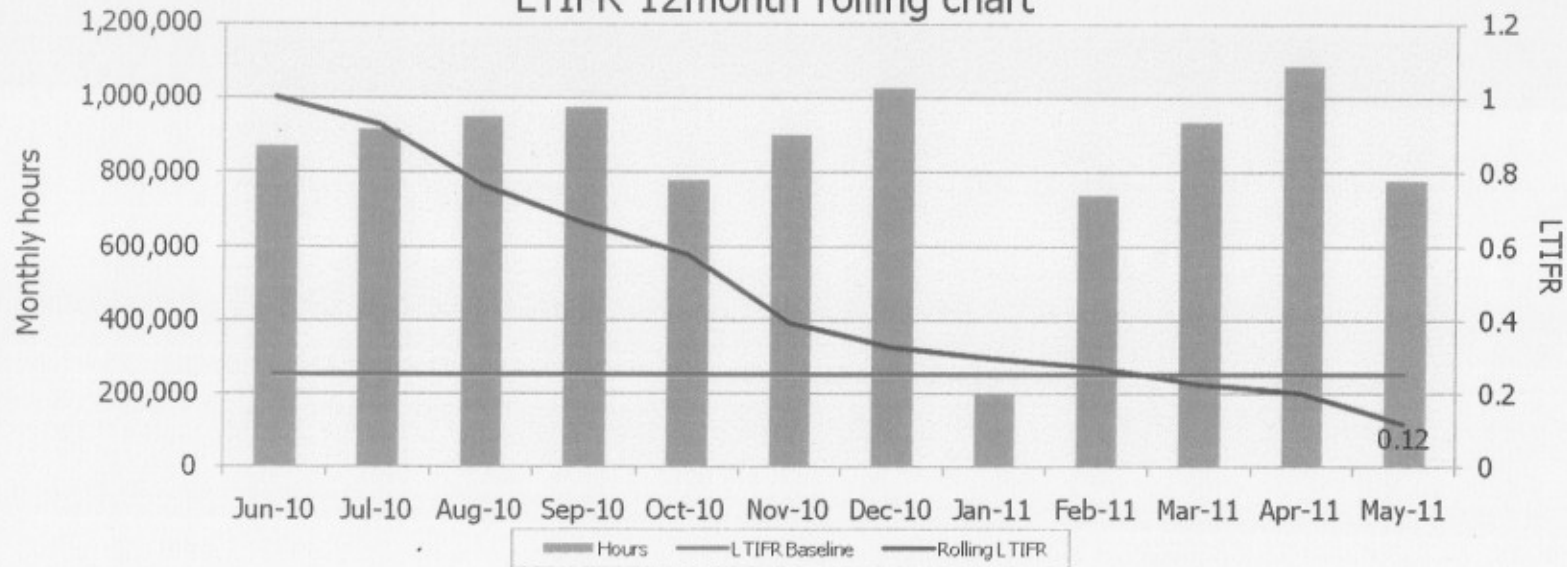
- EIA
- Section 53 (MPRDA)
- Section 79 (NPA)
- DWA (Water Abstraction, Disposal, Waterway Crossings)
- Rezoning of Pump Station Sites, Terminal 2

NMPP PROGRESS ACHIEVEMENTS AND CHALLENGES

SAFETY AND BARRIERS



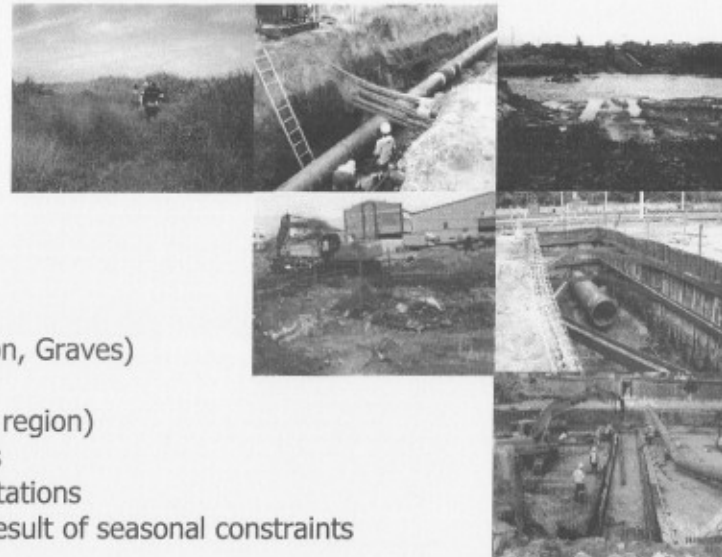
LTIFR 12month rolling chart



LTIFR: Lost Time Injury Frequency Rate: The number of injuries *200 000 / man hours of work on the project to date (or over 12months).

Barriers

- Wetlands
- River Crossings
- Rail and Road Crossings
- Force Majeure
- Water Availability
- Spoil Material
- Borrow Pits
- Permitting
- Unidentified Constraints (Pollution, Graves)
- Water Use and Water Courses
 - Upper Vaal (Water deficient region)
 - Management of all crossings
 - Managing community expectations
 - Schedule implications as a result of seasonal constraints



Safety

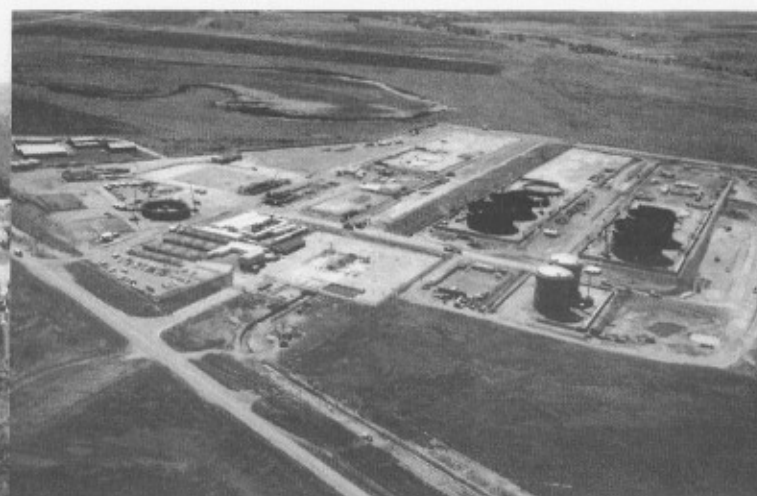
Manpower	4,504
Hrs to Date	18,894,277
Hours LTI Free	1,360,082

NMPP PROGRESS ACHIEVEMENTS AND CHALLENGES

CONSTRUCTION AND ENGINEERING STATUS



	Pipeline	Pump & Metering Stations	Mac / MCC	Terminal 1	Terminal 2
Construction	99.31%	85.49%	1.76%	2.97%	45.11%
Engineering	100%	99%	63.97%	41.39%	77.75%
Schedule	29 July 2011	30 August 2011	31 July 2013	31 July 2013	23 July 2012





Competitive and world class multi-product pipeline that will secure the supply of petroleum products to the inland market

Giving the importance of the Transnet New Multi-Products Pipeline to South Africa's economy and having regard to the full purview of challenges, the NMPP addresses mitigating measures to:

- Ensure that it is constructed according to industry best practices
- Ensure world class coatings and cathodic protection system
- Comply with safety, legal and environmental regulations
 - Interim diesel completion by 31 December 2011
 - Total project completion by 31 December 2013

NMPP BENEFITS

- When fully operational, it will reduce the number of tankers on the road by at least 60%
 - Reduce deterioration of the road network
 - Reduce road maintenance costs
 - Reduce congestion on the roads
- Improve Transnet's and South Africa's carbon footprint by reducing carbon emissions from the road transportation of petroleum products
- It is the safest, most cost effective and a very efficient mode of moving petroleum products

NMPP: COST & COST DRIVERS



Asset	Pipeline	Pump & Metering Stations	TM1	TM2	Mac / MCC	EPCM Costs	Owner's Costs	Total
Approved P70 Budget	7,943	1,726	2,712	2,549	1,684	3,724	3,070	23,407
EPCM FFC (P50)	7,759	1,563	2,474	2,360	1,372	4,037	2,236	21,802
P70 Owner's Team Risk	0,151	0,128	0,193	0,156	0,269	0,002	0,491	1,390
Project Reserve Holding Account	0,032	0,035	0,044	0,033	0,043	0,028	0,000	0,216
P70 Project FFC	7,943	1,726	2,711	2,549	1,684	4,067	2,727	23,407

Cost Drivers

Economics

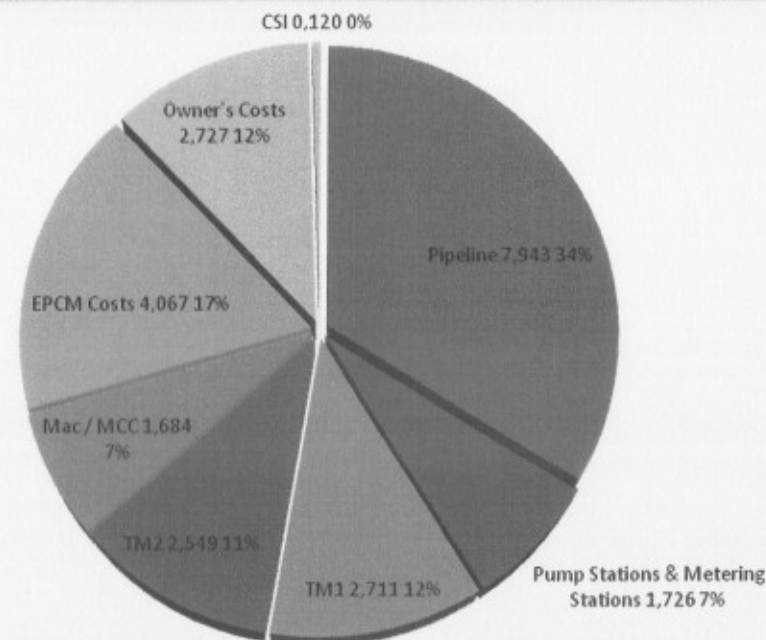
- Economic downturn
- Cost of equipment (Market & Escalation)
- Cost of schedule (Market & Escalation)

Controllable

- Internal Processes and Governance
- Delivery & Contracting Strategy
- Project Development / Life Cycle

Uncontrollable

- Power supply (Eskom)
- Changes in scope
- Market (Suppliers & Contractors) expertise & capacity
- Security
- DWA, DEA, DOE





CAPACITY OF NMPP TRUNKLINE (24") AND CHALLENGE OF MEETING SECURITY OF SUPPLY REQUIREMENTS

1. Background to expansion ability of the NMPP trunkline:

- Modular expansion of trunkline's capacity from 1 million litres/hour (2013) to 3 million litres/hour (2035) possible because of 24" pipeline supplied up front and adding pumps and pumpstations (as-and-when-required) over time.
- Present project only to complete Phase 1 (of 5) of the overall project (up to 1 million litres/hour).
- Phase 1 consists of:
 - 3 X 16" pipelines in the inland area to replace the DJP, mainly in Gauteng;
 - The 24" trunkline pipeline and 3 pumpstations along the trunkline route as well as
 - Two accumulator terminals (tankfarms) at the two ends of the trunkline (one in Port of Durban (Island View) and one in Jameson Park near Heidelberg in Gauteng).
- Final completion of Phase 1 of NMPP now only December 2013 (original date : Q3 2010).

2. Staged delivery of Phase 1 of NMPP trunkline before December 2013 is however possible as follows:

Stage 1:

- 3 X 16" in Northern Network – fully operational from April 2011 (16 months late) will only enhance operational flexibility in network, would not add capacity from coast.

Stage 2:

- Delivery of 24" trunkline and pumpstations (but without terminals) (December 2011). This will allow line to operate at half its capacity (500 000ℓ/h or 500m³/h) and only with diesel (no multi-product ability as yet).

ADDRESSING SECURITY OF SUPPLY CONCERNS GIVEN LATER COMPLETION OF NMPP-PROJECT



CAPACITY OF NMPP TRUNKLINE (24") AND CHALLENGE OF MEETING SECURITY OF SUPPLY REQUIREMENTS (continued..)

Stage 3:

- Delivery of inland terminal (TM2) in September 2012 will enhance multi-product ability of trunkline but still at 500m³/h.

Final Stage 4:

- Delivery of coastal terminal (TM1) and therefore full project : December 2013. NMPP Phase 1 now fully operational – multi-product line at 1000m³/h (one million litres/hour)

3. Challenges of security of supply have to and can be met over the next 3 years till the final completion of the project in the following fashion:

3.1 Till December 2011:

- Continue with present Bridging Plan initiatives.
 - Using Drag Reducing Agents (DRA's) in the DJP and keep present rating of line in place but initially ease use to mitigate risk of failure.
 - Using the Crude Oil Pipeline to transport Diesel and also Petrol (DIC initiative).
 - From April 2011 till end of 2011, enhance present Bridging Plan by adding a further rail transport element with TFR – the so-called TFR Fuel Bridging Plan (planned for additional 10 Million litres/week).

3.2 From January 2012 till December 2013:

- Using the DJP in a downrated fashion with DRA's as a multi-product pipeline.
- Also using the NMPP trunkline in a partial fashion at half of its final capacity transporting only diesel, using (by-passing) TM1 (so-called By-pass project).
- Commissioning TM2 and finally TM1 as they are completed therefore enhancing the NMPP trunkline's ability to carry more than one product and increasing on the 500m³/h flowrate as required supporting terminal infrastructure becomes available.