



MOKOLO- EN KROKODILRIVIER (WES) WATERAANVULLINGSPROJEK (MKWAP)

Fase 1: Verhoogde Toevoer vanuit Mokolodam

Openbare Ope Dag




Inleiding

- Welkom by die Openbare Ope Dag vir **MKWAP Fase 1**
- Maak asb. seker dat u die **Presensielys** ingevul het
- Oorsig van Ope Dag




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Ope Dag - Oorsig



- **Stap 1:** Vul in Presensielys by Registrasie Tafel



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Ope Dag - Oorsig



- **Stap 1:** Vul in Presensielys by Registrasie Tafel
- **Stap 2:** Besigtig Voorleggings 1 en 2



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Inleiding

- Welkom by die Openbare Ope Dag vir MKWAP Fase 1
- Maak asb. seker dat u die Presensielys ingevul het
- Oorsig van Ope Dag
- **U is welkom om vrae te rig aan die projek span nadat u die voorleggings besigtig het**

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Projek Span

Departement van Waterwese en Bosbou	
Verteenwoordigers	Verantwoordelikheid
O. van den Berg	Aansoeker

Aurecon	
Verteenwoordigers	Verantwoordelikheid
F. Vogel	Projek Koördinerings en Bestuurs Module
B. Smit	
J. Pienaar	Tegniese Studie Module

Nemai Consulting	
Verteenwoordigers	Verantwoordelikheid
N. Naidoo	Omgewingsbestuurs Module
D. Henning	
S. Pienaar	

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Inleiding

- Welkom by die Openbare Ope Dag vir MKWAP Fase 1
- Maak asb. seker dat u die Presensielys ingevul het
- Oorsig van Ope Dag
- U is welkom om vrae te rig aan die projek span nadat u die voorleggings besigtig het
- **Die inhoud van dië voorlegging is as volg:**
 - Doel van Ope Dag
 - Projek Agtergrond en Motivering
 - Tegniese Inligting
 - Omgewingsimpakbepaling

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Doel van Ope Dag

- Vorm deel van Openbare Deelname vir die Omgewingsimpakbepaling (**OIB**)
- Voorsiening van inligting aangaande **MKWAP Fase 1**
- Dien as geleentheid vir projek-verwante besprekings

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Neem asb. Kennis:

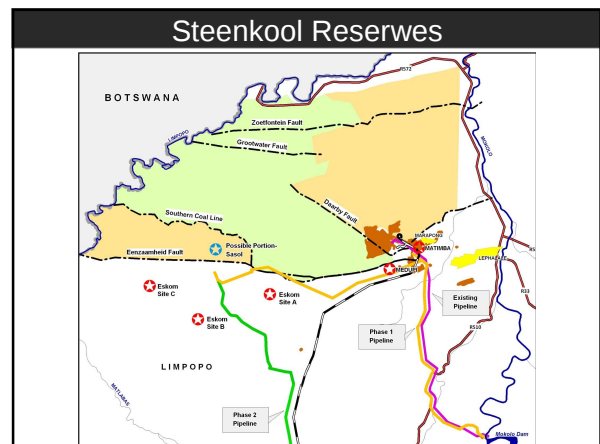
- Die beplanning en ontwerp van die projek komponente is 'n dinamiese proses, en die inligting mag dus verander.
- Alle Belanghebbende en Geaffekteerde Partye sal op hoogte gehou word van enige veranderinge in die projek deur die Omgewingsimpakbepaling

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Projek Agtergrond

- Die MCWAP is 'n DWEA geïnisieerde projek met die doel om water voorsiening in die in die Lephalale Munisipale area aan te vul.
- Die projek ondervang die beplanning, ontwerp en konstruksie van die siviele infrastruktuur benodig om water oor te plaas na die gebruiksarea, in die hoeveelhede benodig vir huidige en toekomstige ontwikkeling.
- Twee fases word tans beplan vir implementering:
 - Fase 1: Mokolo Skema (opgradering van die bestaande infrastruktuur)
 - Fase 2: Krokodilrivier (Wes) Skema
 - Verdere fases sal waarskynlik volg

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Motivering vir die Projek

- Die Waterberg steenkool reserves is 'n energie bron van Nasionale belang en ekonomiese ontwikkeling.
- Bestaande ontwikkeling sluit in Ellisras, Marapong, Grootegeluk Myn, Matimba, Medupi (word tans gebou) en besproeiing.
- Beplanning vir toekomstige ontwikkeling sluit in verdere kragentrales, steenkool tot petroleum verwerkings aanlegte, moontlike ontwikkeling van gas velde, addisionele steenkool myne en die geassosieerde infrastruktuur.
- Die water behoeftes van hierdie industrie kan nie uit lokale bronne voorsien word nie en moet dus aangevul word van elders.

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Motivering vervolg

- Die Departement van Waterwese en Omgewingsake (DWAE) is verantwoordelik vir die beplanning van Regerings Water Werke ten einde te voorsien in die behoefte.
- MCWAP is die oorkoepelende projek waaronder die oordrag skemas beplan en geïmplementeer word.
- Die behoefte aan energie (elektrisiteit en brandstof) geniet hoë prioriteit op die regering se agenda en daarom ook dié projek.
- Die Omgewings Impak Studie verseker dat die relevante wetgewing noudeset gevolg en deurgaans toegepas word in die uitvoering van die projek.

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Tegniese Inligting

- Die grafiek vergelyk die huidige en toekomstige aanvraag met die gekombineerde kapasiteit van Fases 1 en 2 gesamentlik.

Year	Eisante (dam³)	Fase 1 (dam³)	Fase 2 (dam³)	Behoeftes (dam³)
2009	~10	~10	~10	~10
2014	~40	~40	~40	~40
2025	~100	~100	~100	~200

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Tegniese Inligting

- **Fase 1 infrastruktuur**
 - Opsies oorweeg sluit in 'n stuwal in die Mogol Rivier Oos van Lephalale; en,
 - Direkte onttrekking vanuit Mokolo Dam
- **Komponente:**
 - Tweede pompstasie by Mokolo Dam
 - Styg lyn tot by Wolwefontein balanseer dam (± 6 km),
 - Gravitatie lyn tot by Matimba (± 40 km); en,
 - 'n Pyplyn weswaarts tot by Steenbokpan (± 40 km)
- **Kapitaal koste:**
 - Geraam op R 1 450 miljoen

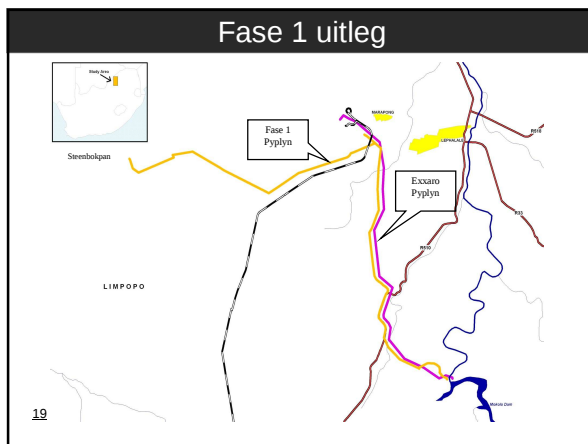
Gekose Opsie

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Tegniese Inligting

- **Konstruksie:**
 - Beplan vir vroeg 2010
 - Die eerste stap is om 'n gedeelte van die bestaande lyn te vergroot (eerste 9 km vanaf Wolwefontein tot by Rietspruitnek).
 - Die konstruksie program is afhanklik van die kontrakteur se konstruksie metode en beplanning.
 - Bestuur van die konstruksie terrein, toegangsbeheer en veiligheid is 'n kontraktuele vereiste en sal bestuur word deur die aangewese inspekteurs.
- **Implementeringsagent:**
 - Trans-Caledon Tunnel Authority (TCTA) sal die ontwerp en konstruksie fase behartig.
 - Onderhandelinge en kompensasie is 'n aflewerbare van die instruksie aan TCTA.

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Omgewingsimpakbepaling

Omgewingsimpakbepaling (OIB)

“die identifisering, vooruitskating, evaluering en bestuur van die bio-fisiese, sosiale en ander relevante nagevolge van ontwikkelings voordat besluite geneem word en verbindings gemaak word”

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Omgewingsimpakbepaling

Opsomming

- Die OIB voorstelling behels die volgende:
 - Wetgewende raamwerk
 - Omvangsbepaling- en Omgewingsimpakbepalingproses



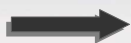
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Omgewingsimpakbepaling

Wetgewende Raamwerk

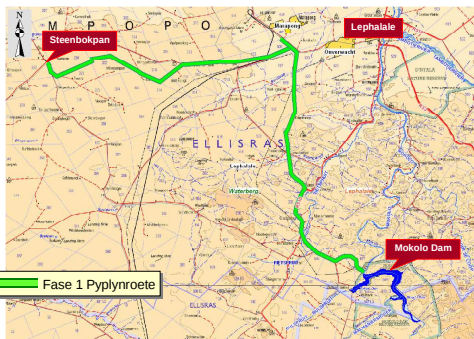
- MKWAP vereis omgewingsgoedkeuring kragtens die Nasionale Wet op Omgewingsbestuur (No. 107 van 1998).
- Goedkeuringsproses moet in ooreenkomstig met die Omgewingsimpakbepaling Regulasies (Staatskennisgewings No. R385, R386 en R387) uitgevoer word.
- MKWAP omgewingsgoedkeuring prosesse:



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Fase 1 Omvangsbepaling & Omgewingsimpakbepaling

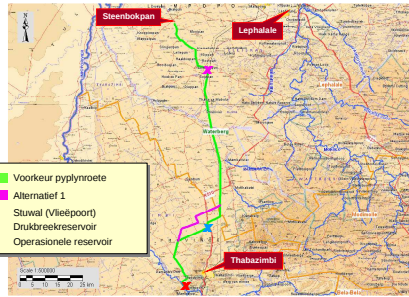
Neem Kennis: Hierdie Ope Dag is gefokus op MKWAP Fase 1



Fase 1 Pyplynroete

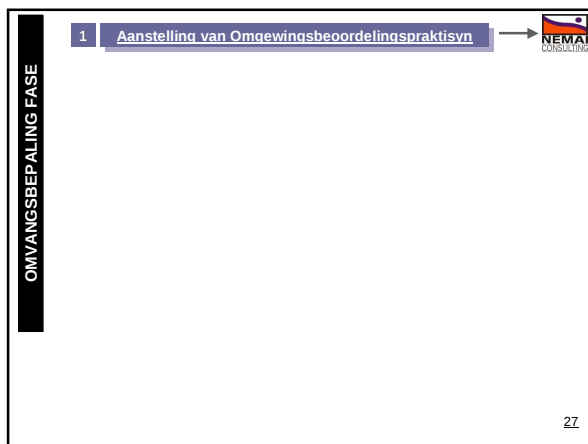
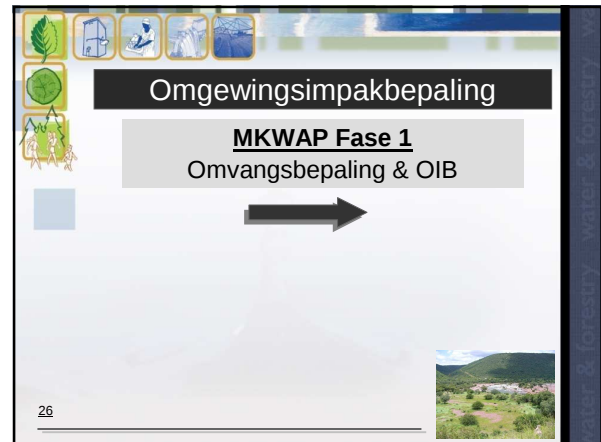
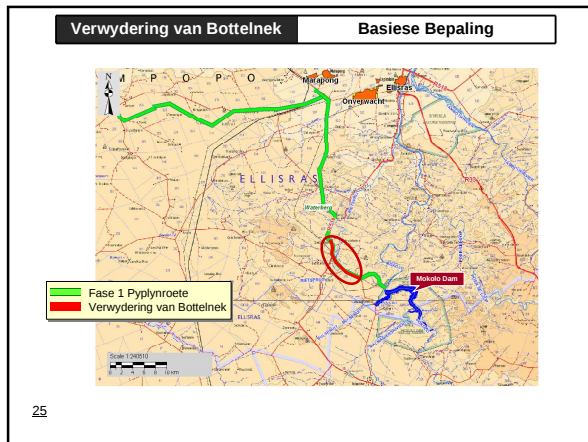
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Fase 2 Omvangsbepaling & Omgewingsimpakbepaling

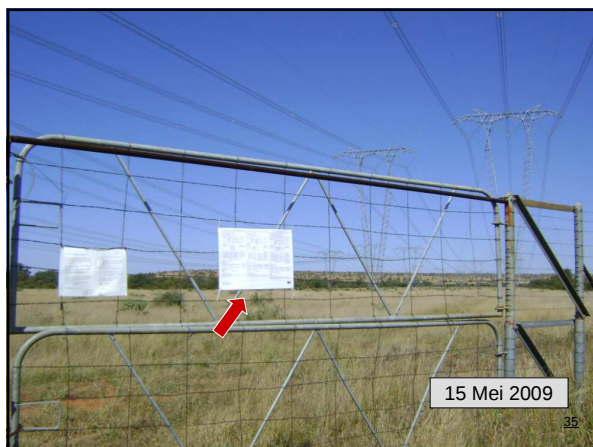


Voorkeur pyplynroete
Alternatief 1
Stuwal (Vleëpoort)
Drukbreekreservoir
Operasionele reservoir

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OMVANGSBEPALING FASE

1. Aanstelling van Omgewingsbeoordelingspraktisyn
2. Aansoekvorm
3. Openbare Deelname

➡ Ons is hier

14 Mei - 19 Junie 2009

Kennisgewing:

1. Kennisgewingsborde
2. Verspreiding van Agtergrond-inligtingsdokumente (AID) d.m.v. geregistreerde pos, faks en epos na Belanghebbende en Geaffekteerde Partye

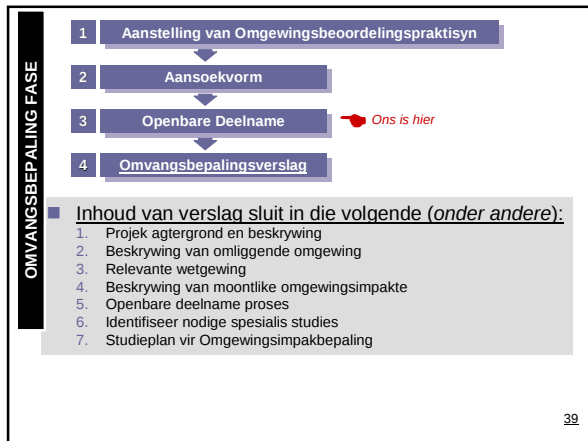
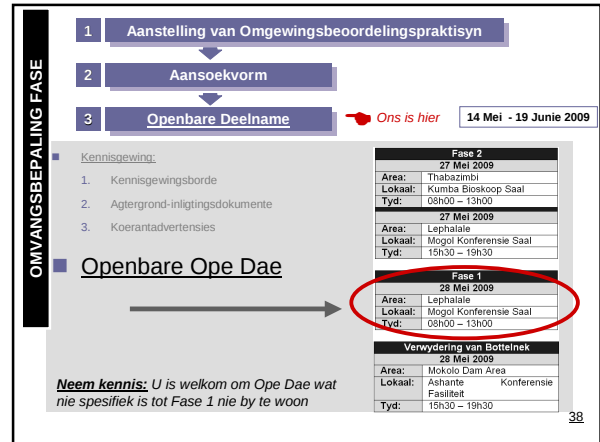
→ Owerhede

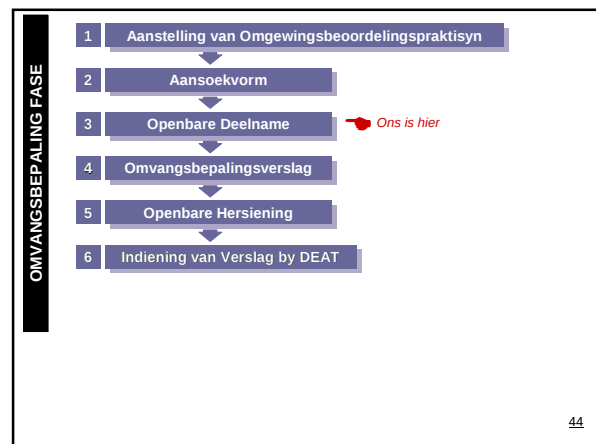
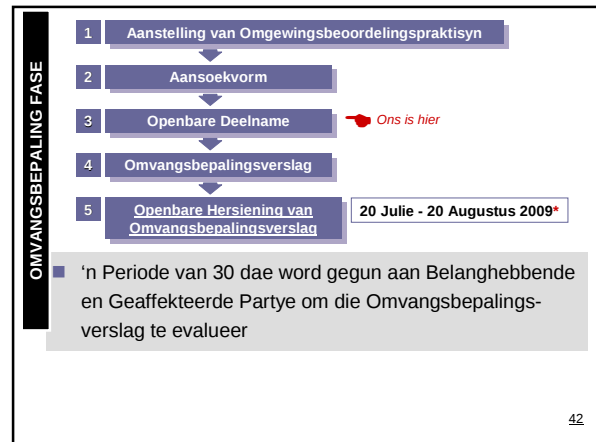
→ Geaffekteerde Partye

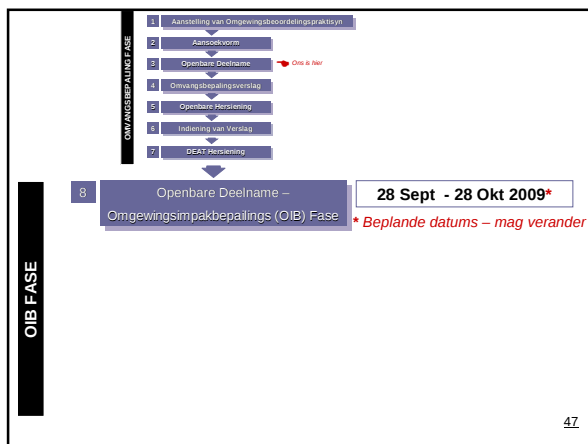
→ Algemeen

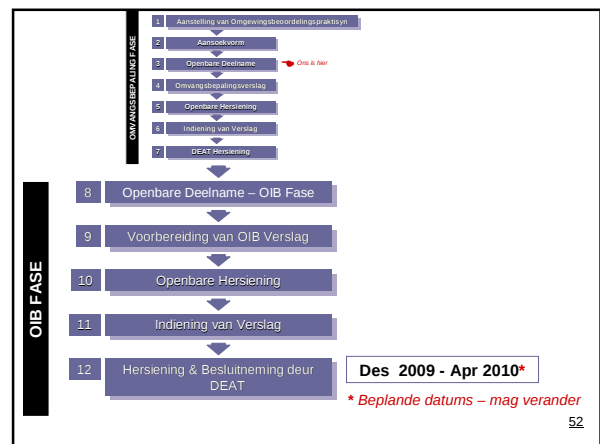
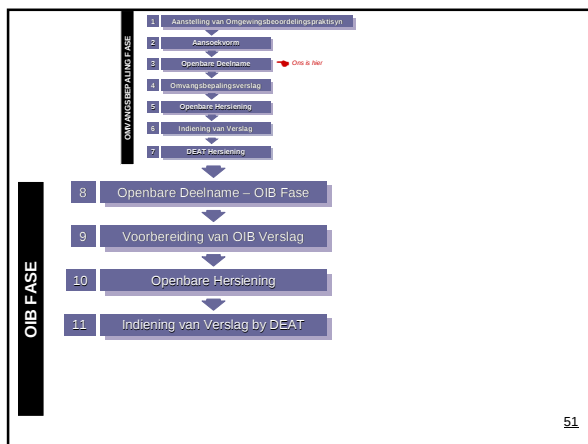
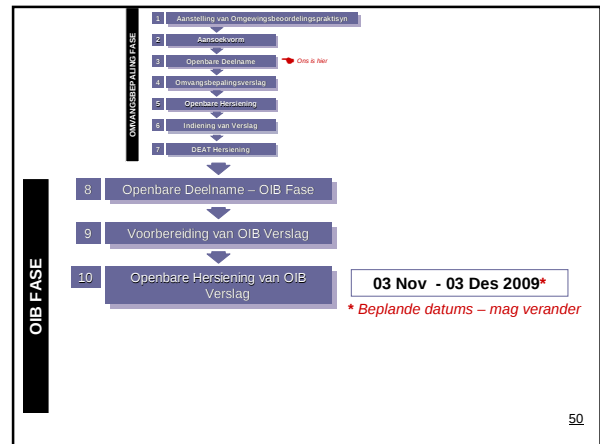
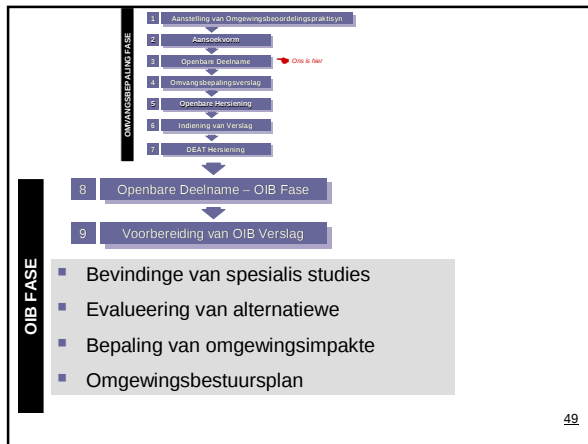


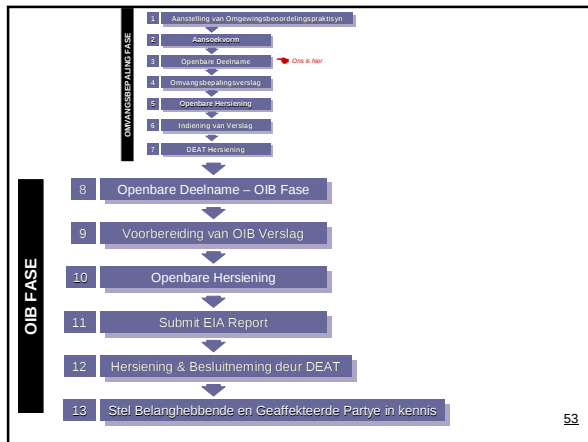
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Einde van Voorlegging

Besigtig asb. die volgende voorlegging vir 'n Google vlug van die pyplyn roete

U is welkom om vrae te rig aan die projek span nadat u die voorleggings besigtig het

MOKOLO AND CROCODILE RIVER (WEST): WATER AUGMENTATION PROJECT (MCWAP)

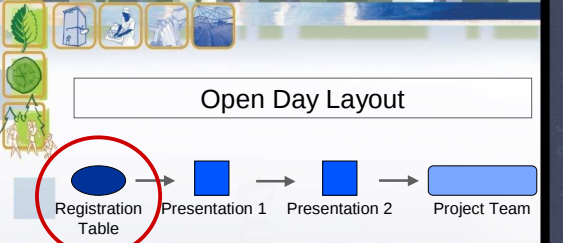
Phase 1: Augment Supply from Mokolo Dam

Public Open Day

Introduction

- Welcome to this Public Open Day for **MCWAP Phase 1**
- Please ensure that you have signed the **Attendance Register**
- Open Day layout

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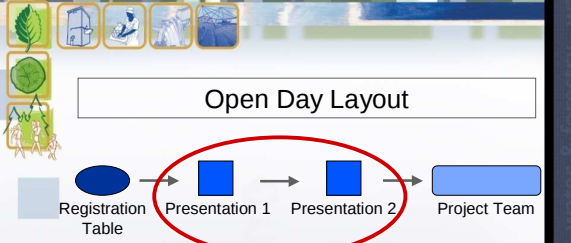


Open Day Layout

Registration Table → Presentation 1 → Presentation 2 → Project Team

- Step 1: Sign Attendance Register at Registration Table

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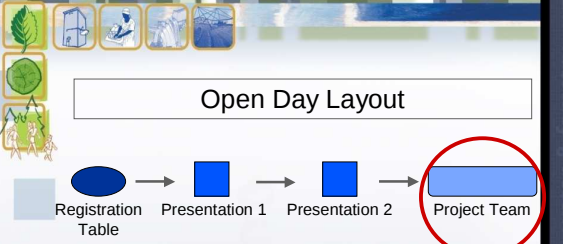



Open Day Layout

Registration Table → Presentation 1 → Presentation 2 → Project Team

- Step 1: Sign Attendance Register at Registration Table
- Step 2: View Presentations 1 and 2

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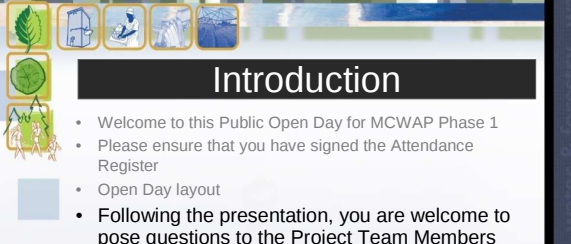



Open Day Layout

Registration Table → Presentation 1 → Presentation 2 → Project Team

- Step 1: Sign Attendance Register at Registration Table
- Step 2: View Presentations 1 and 2
- Step 3: Pose questions to Project Team

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Introduction

- Welcome to this Public Open Day for MCWAP Phase 1
- Please ensure that you have signed the Attendance Register
- Open Day layout
- Following the presentation, you are welcome to pose questions to the Project Team Members

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Project Team	
Department of Water Affairs & Forestry	
Representatives	Responsibility
O. van den Berg	Project Proponent
Aurecon	
Representatives	Responsibility
F. Vogel	Project Coordination and Management Module
B. Smit	
J. Pienaar	Technical Study Module
Nemai Consulting	
Representatives	Responsibility
N. Naidoo	Environmental Management Module
D. Henning	
S. Pienaar	

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Introduction

- Welcome to this Public Open Day for MCWAP Phase 1
- Please ensure that you have signed the Attendance Register
- Open Day layout
- Following the presentation, you are welcome to pose questions to the Project Team Members
- The content of this presentation includes the following:
 - Purpose of the Open Day
 - Project Background & Motivation
 - Technical Information
 - Environmental Impact Assessment
 - Status Quo Report



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Purpose of Open Day

- Part of Public Participation for Environmental Impact Assessment (EIA)
- Information sharing for **MCWAP Phase 1**
- Allow for project-related discussions



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Note:

- The planning and design of the project components is a dynamic process, hence the information presented could change.
- All Interested and Affected Parties will be kept informed of the project changes through the Environmental Impact Assessment process.

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PREVIOUS & CURRENT INVESTIGATIONS

- Crocodile (West) Reconciliation Strategy;
- Crocodile (West) Validation & Verification;
- Crocodile (West) Environmental Water Requirements;
- Crocodile (West) & Mokolo Catchment Water Transfer Reconnaissance Study;
- DWAF Lephalale Bulk Infrastructure Grant Feasibility Study.

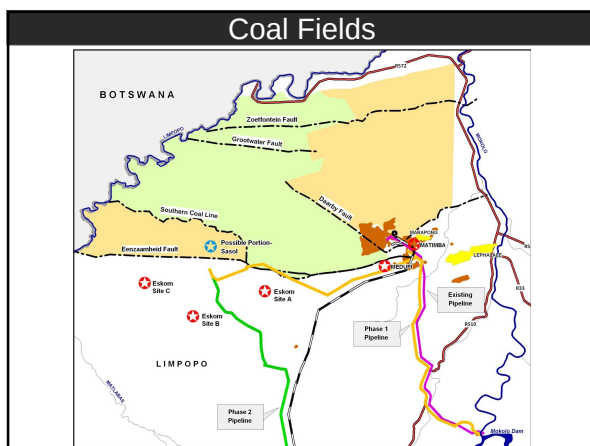
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Project Background

- The MCWAP is a Government project that will augment the water available in the Lephalale Municipality area.
- The project entails the planning, design and construction of the infrastructure needed to transfer water to the delivery areas in the volumes required for current and future development.
- Currently two phases are planned for implementation:
 - Phase 1: Mokolo Scheme (upgrading of existing infrastructure)
 - Phase 2: Crocodile river (West) Scheme
 - Further phases will likely follow

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Project Motivation

- The Waterberg coal fields creates opportunities for development.
- Existing development includes Ellisras Town, Marapong, Grootegeluk Mine, Matimba Power Station, Medupi Power Station (Under construction) and Irrigation.
- The planned future development includes further power stations, coal to liquid fuel plants, possible gas mining, further coal mines and the associated development.
- These industries all require water used in the beneficiation process which is not locally available in the quantities required.

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Project Motivation (cont.)

- The Department of Water and Environmental Affairs is responsible for planning government water works to supply in the need of such developments.
- The MCWAP is the umbrella project under which the water transfer infrastructure is being planned and implemented.
- The tight deadlines are driven by the need for power generation (and liquid fuel) in South Africa, a high priority on the Governmental agenda.
- The Environmental Impact Assessment ensures that the applicable legislation is applied throughout the process.

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Technical Information

- The graph compares the current and future demand with the combined capacity of the existing (Exxaro) and planned (Phase 1+2) capacity

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Technical Information (cont.)

- Phase 1 infrastructure**
 - Options considered were a weir in the Mogol river east of Lephalale, and
 - Direct abstraction from Mokolo Dam **Selected Option**
- Infrastructure components:**
 - Second pump station at Mokolo dam
 - Pumpline to Wolwefontein balancing dam (± 6 km),
 - Gravity pipeline to Matimba (± 40 km), and
 - A link to west Steenbokpan (± 40 km)
- Capital Cost:**
 - Estimated at R 1 450 million

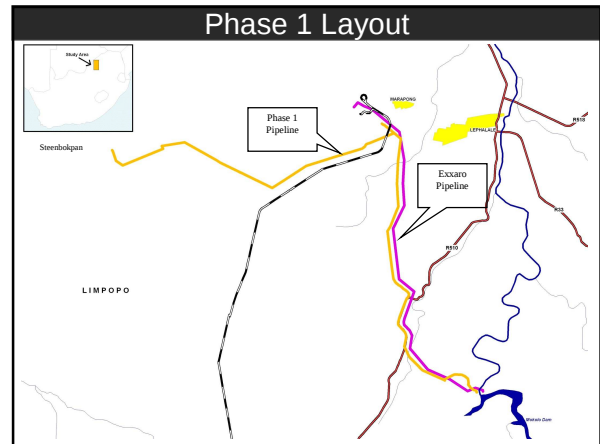
72



Technical Information (cont.)

- **Construction:**
 - Planned to start early 2010
 - First stage is to de-bottleneck the first 9 km of the existing gravity pipeline from Wolvefontein to Rietspruitnek
 - Further work programming is dependant on the contractors' construction method and plan
 - Site management, access control, health and safety is a contractual requirement and will be managed by the controlling officers
- **Implementation arrangement:**
 - Trans-Caledon Tunnel Authority (TCTA) will be the implementing agent
 - Negotiations and compensation as a deliverable of the implementation arrangements

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Environmental Impact Assessment

Environmental Impact Assessment (EIA)
 “the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made”



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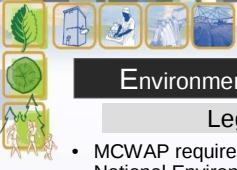
Environmental Impact Assessment

Summary

- The EIA presentation focuses on:
 - Legal Framework
 - Scoping/EIA Process



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Environmental Impact Assessment

Legal Framework

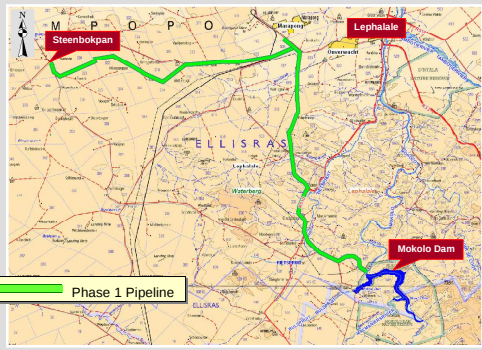
- MCWAP requires authorisation in terms of the National Environmental Management Act (No. 107 of 1998)
- Process undertaken in accordance with the Environmental Impact Assessment (EIA) Regulations (Government Notice No. R385, R386 and R387)
- MCWAP Environmental Authorisation processes:



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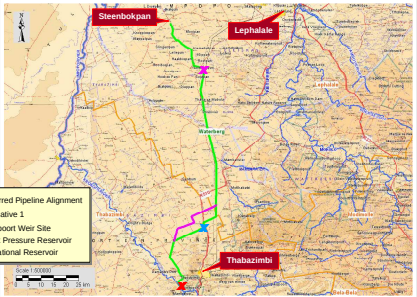
Phase 1 Scoping & Environmental Impact Assessment

Note: This Open Day focuses on MCWAP Phase 1



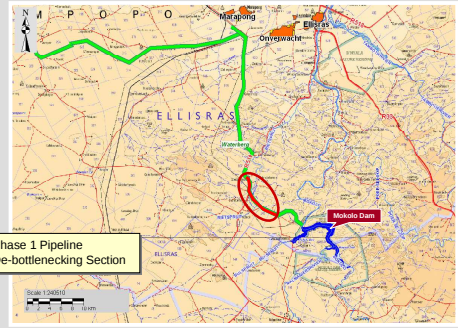
78

Phase 2 Scoping & Environmental Impact Assessment

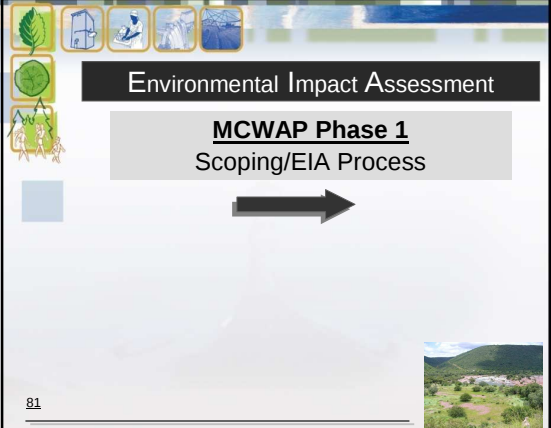


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De-bottlenecking Basic Assessment



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Environmental Impact Assessment

MCWAP Phase 1
Scoping/EIA Process

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SCOPING PHASE

1 Appoint Environmental Assessment Practitioner → 

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SCOPING PHASE

1 Appoint Environmental Assessment Practitioner

2 Application Form

- Submitted to Department of Environmental Affairs and Tourism (DEAT) – April 09
- DEAT Ref No. for MCWAP Phase 1: 12/12/20/1465

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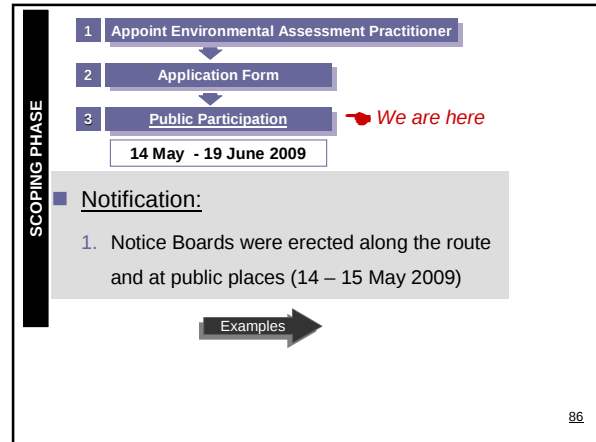
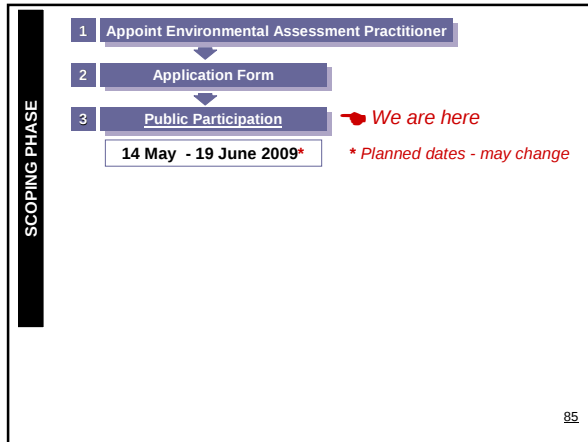
SCOPING PHASE

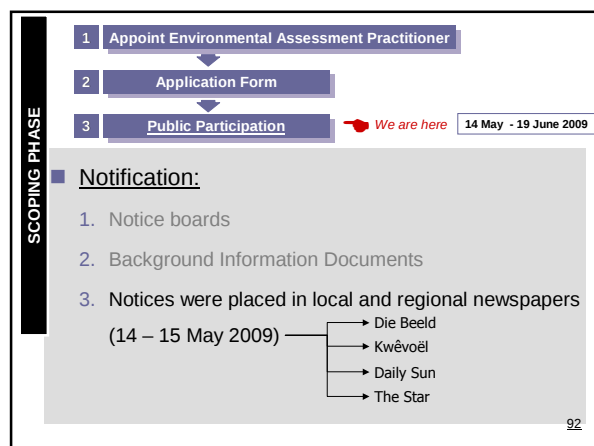
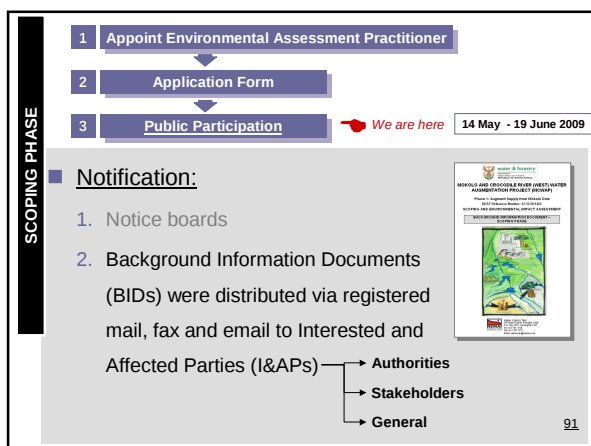
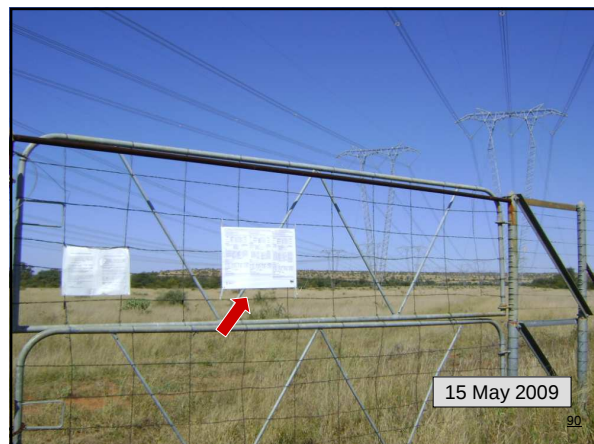
1 Appoint Environmental Assessment Practitioner

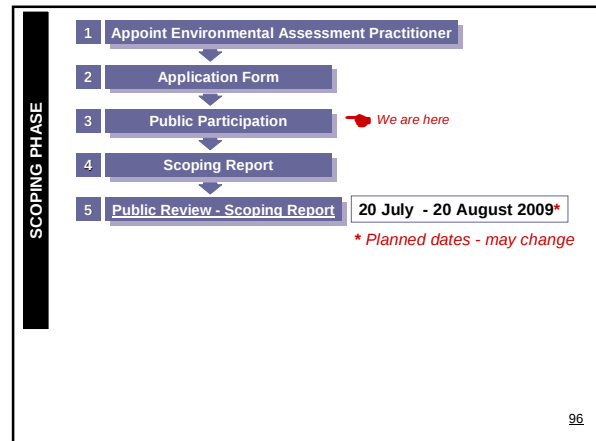
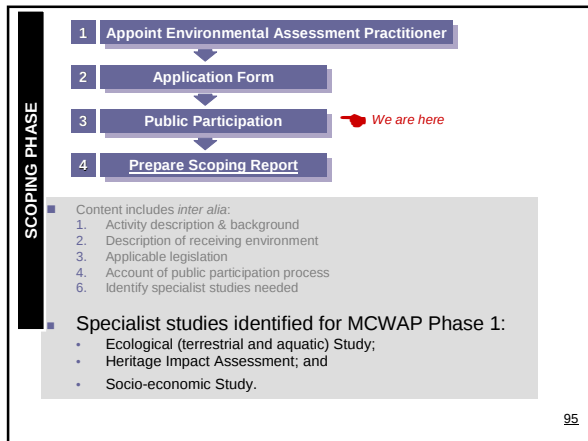
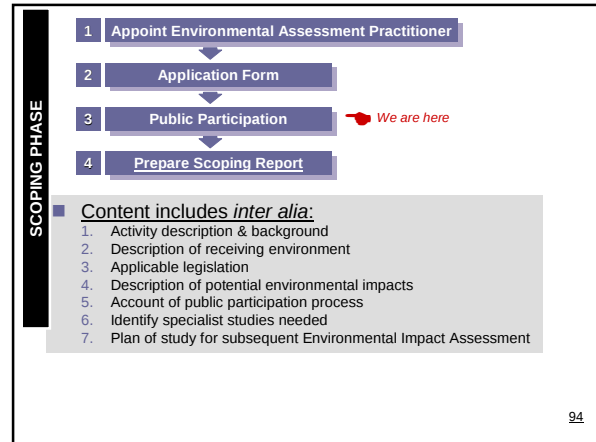
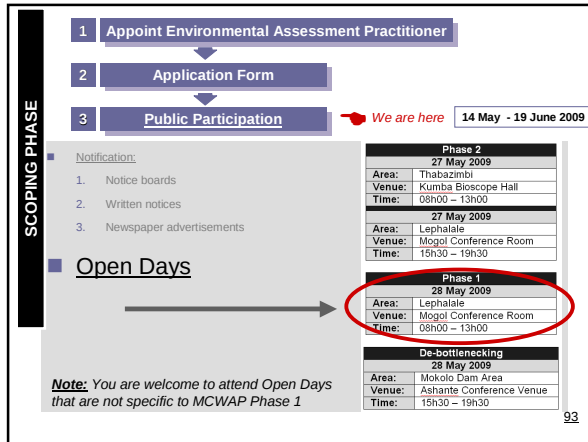
2 Application Form

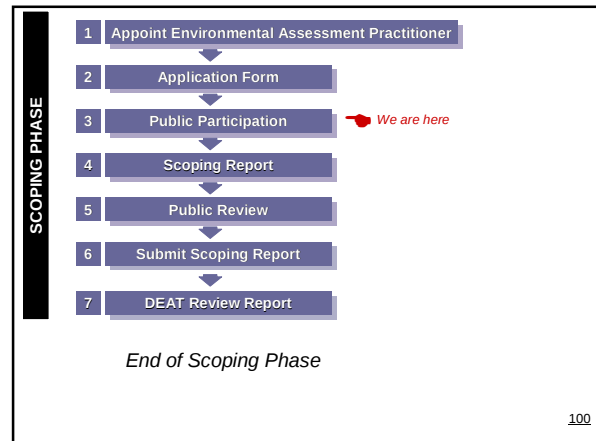
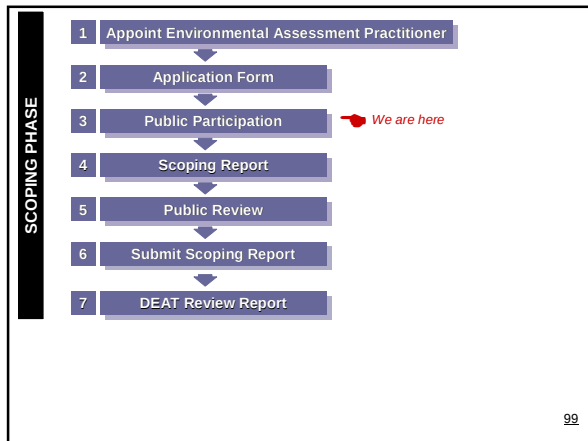
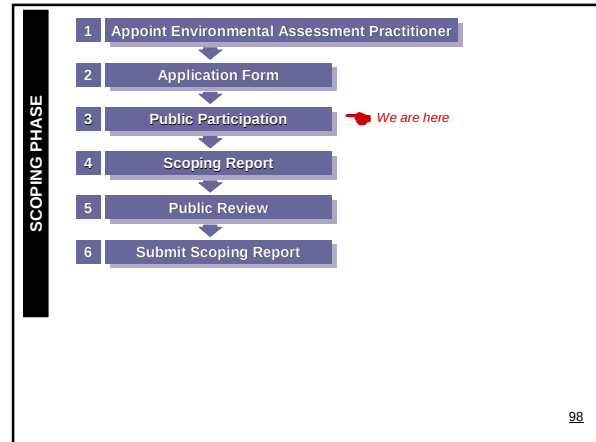
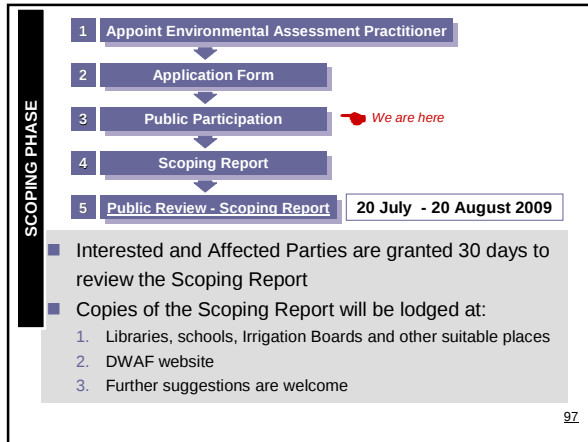
3 Public Participation → *We are here*

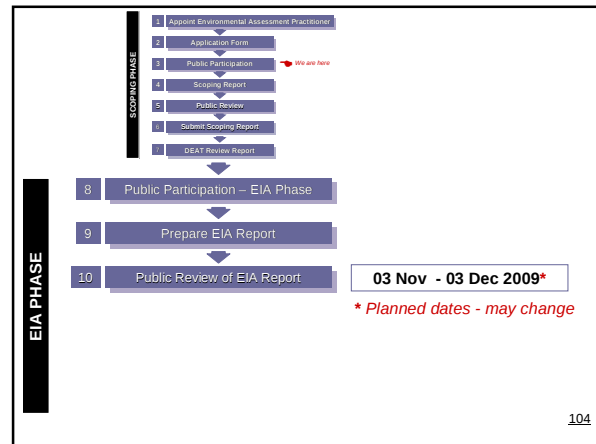
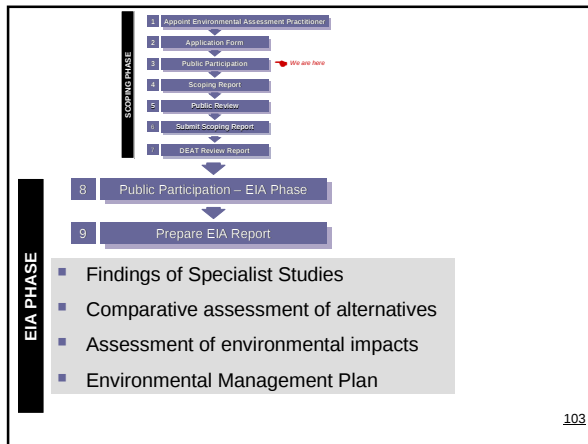
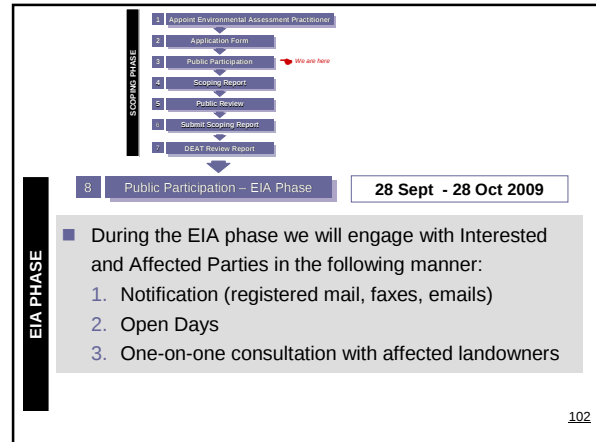
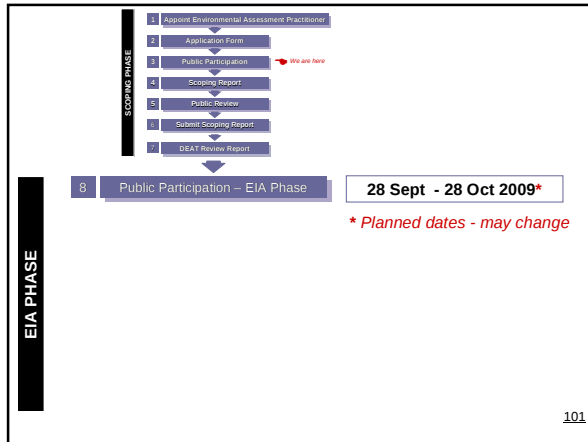
84

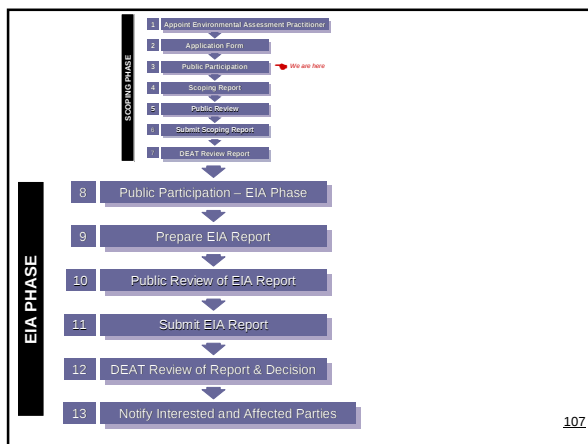
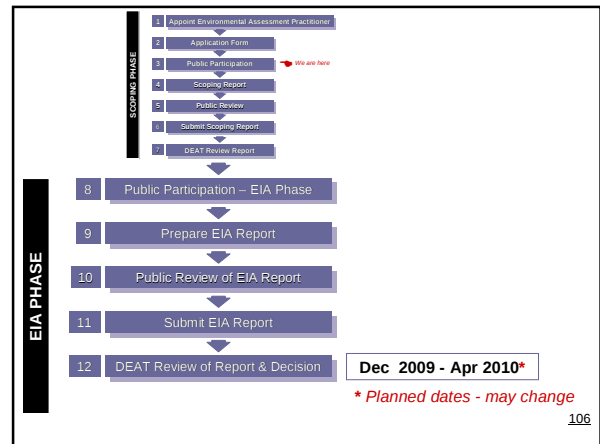
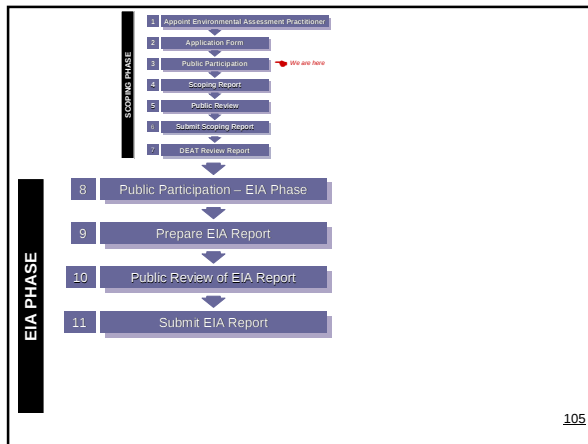












End of Presentation

Please view the next presentation for a Google Fly-over of the route

Thereafter you are welcome to pose questions to the Project Team