BolandEnviro Consultants Paarl New-Generation Correctional Centre Public Open Day 20 July 2011

Environmental Impact Assessment

Proposed New-Generation Correctional Centre on Portions 32 and 35 of Farm 527, Paarl, Western Cape

DEA REF. NO: 12/12/20/2190

Architects & Planners

OVERVIEW OF PRESENTATION

• Purpose of Open Day Meeting
• Background to Proposed Development
• Project Description
• Motivation for the Project
• Alternatives Considered
• Legislative Context
• Potential Impacts
• Specialist Studies Identified
• EIA Process

BolandEnviro Consultants Paarl New-Generation Correctional Centre Public Open Day 20 July 2011

PURPOSE OF OPEN DAY

• Provide information to public and stakeholders
  – Need for the proposed correctional centre
  – Describe EIA process
  – Project Description
  – Provide opportunity to get involved
  – Identify potential impacts
• Register Interested and Affected Parties (I&APs)

BACKGROUND

• Department of Public Works proposed construction of New-Generation Correctional Centre on behalf of Department of Correctional Services
• Proposed project part of national programme implemented to combat overcrowding in prisons in a cost-effective manner.
• Various objectives including improved living conditions & rehabilitation.
• Previous EIA process’ Record of Decision expired (valid for 2 years)
• New EIA for authorisation from Department of Environment Affairs
• BolandEnviro appointed to conduct EIA

MOTIVATION FOR THE PROJECT

• South African correctional centres overcrowded
• Proposed New-Generation Correctional Centre Proto-type to address overcrowding & rehabilitation challenges (prematurely terminated programmes)
• Four centres proposed, including Paarl
• Ideally situated
  – Next to existing Allandale Correctional Centre
  – Security infrastructure in place (Allandale & Paarl East Police Station)
  – Land is State owned
  – Zoned for Institutional (Government) usage
  – Inside Urban Edge
  – Currently used by correction facility (cultivation of vegetables)
  – Vacant, already disturbed and transformed
  – Biodiversity considered low
  – No significant heritage & cultural features

Locality map

Proposed new Correctional Centre

BolandEnviro Consultants Paarl New-Generation Correctional Centre Public Open Day 20 July 2011
Google satellite 3D perspective looking southward towards the Allandale Correctional Centre and terrain proposed for New-Generation Correctional Centre

**LOCALITY**

- **Portion 35 (39ha)** (Institutional Zone)
- **Portion 32 (0.5ha)** (Agricultural Zone 1)

**Existing Allandale Correctional Centre**

**Neighbouring informal settlement**

**Neighbouring low-cost housing**

**STUDY AREA**

- **Farmhouse on site to be demolished**
- **Upper catchment dam**
- **Site used for cultivation of vegetables**
- **Stormwater drainage channel at Van der Stel Road intersection**
- **Farm shed adjacent to proposed site**
**STUDY AREA**

**Fauna & Flora**
- Very little natural vegetation on site
- Wildlife unlikely to occur due to current level of interference

**Air Quality**
- Possible air pollution emissions – investigated
- Air emission licence applications will be undertaken during EIA phase if necessary

**Visual Aspects**
- Not expected to significantly impact on visual aspects and sense of place

**Cultural and heritage aspects**
- No features of cultural significance found during 2005 Heritage Impact Assessment (HIA)
- Heritage Western Cape to determine if HIA to be repeated

---

**PROJECT DESCRIPTION**

**Layout and Design**
- Based on Proto-type design
- Total development footprint ± 30ha
- Accommodate ± 3000 inmates
- Moves away from private and dormitory cell types
  - Unit management, direct supervision & communal cells
- Minimise overcrowding
- Reduce staff control and operational costs
- More multi-purpose social & recreational space
- Allows for phased development
- Final design and layout still to be finalised

**Infrastructure and Services:**
- Preferred main entrance – Bo Dal Josafat Road (north)
- Water reticulation
  - Currently insufficient capacity
  - Upgraded to accommodate the facility (± 3600 people, incl. staff)
  - Water main constructed along with extension of Van der Stel Road
  - Domestic, sports fields, reservoir for fire water demand
  - ± 1.68km x 450 mm pipeline + new pressure release valve and controller required
  - Constructed within existing road reserves

---

**Left:** Schematic representation of 3000 Inmate Proto-Type; **Right:** Satellite image of Northern Cape New-Generation Correctional Centre

**Schematic representation of preferred layout overlain onto Subject Land**

**Example of architectural style applied to a New Generation Correctional Centre in Northern Cape**
**PROJECT DESCRIPTION**

**Infrastructure and Services:**

**Sewer Reticulation**
- Currently insufficient capacity to meet demand
- Upgraded to accommodate the facility (3600 people, incl. staff)
- Constructed within existing road reserves
- Proposed sewer system constructed along with water system and extension of Van der Stel Road
- Exact routes still to be finalised
- Capacity at Paarl Waste Water Treatment Works to be confirmed by Drakenstein Local Municipality

**Waste**
- Currently waste generated at Allandale Correctional Centre disposed of at Drakenstein Municipality waste disposal facility
- Municipality will be responsible for waste removal – operational phase
- Capacity to be confirmed by Drakenstein Municipality

**Stormwater**
- Internal and external drainage systems designed to manage runoff from the site
- Consider increase in hardened surfaces
- Accommodate 1:10 and 1:50 year flood recurrence intervals

**Roadworks**
- Current improvements – widening of Van der Stel Road (along western boundary of Allandale)
- According to previous Traffic Impact Assessment – no upgrades necessary for proposed development
- Internal road network
  - Entrance road
  - Service roads
  - Delivery roads
  - Internal & external patrol roads
  - Passenger vehicle parking facilities

**Electrical supply**
- Currently insufficient capacity
- 3.5 MVA extension proposed from existing substation in Bartolomeu Street

**Fences**
- Electrified security perimeter fence + other boundary fences for maximum security
ALTERNATIVES

No-Go alternative
- Site and environment remain in current undeveloped state
- Cultivation of vegetables—Allandale Correctional Centre
- Not recommended as a viable option

Location alternatives
- Only 1 proposed site alternative – DCS feasibility study

Layout alternatives
- Based on generic proto-type design
- Final design and layout to be determined

ALTERNATIVES

Technology alternatives
- Advanced technology driven security (movement control, alarm, information management, etc.)
- Clean tech initiatives
- Drakenstein Municipality Green Building Manual
- Western Cape Provincial Spatial Development Framework
- Alternatives investigated
  - Coal fired, electric boiler, heat pumps and solar thermal heated water systems
  - Energy efficient systems e.g. building design, materials & electrical installations
  - Recycling & use of grey water
  - Rainwater harvesting
  - Dam – agricultural purposes
- DAM NOT TO BE DEMOLISHED

APPLICABLE LEGISLATION

Environmental Impact Assessment process undertaken in terms of:
- National Environmental Management Act (Act 107 of 1998)
- Impact Assessment Regulations of 2010 (GN. R. 543, 544, 545 & 546) promulgated in terms of NEMA

The proposed development will trigger a number of listed activities as described by the EIA Regulations of 2010 and as such permission must be sought from the applicable authority before any activity may commence, in this instance application has been made to the National Department of Environmental Affairs (DEA), as the Competent Authority.

The following listed activities necessitate an Environmental Impact Assessment:

<table>
<thead>
<tr>
<th>I.D.</th>
<th>Activity</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or agricultural use</td>
<td>3.25ha</td>
</tr>
</tbody>
</table>

**Please note:** The dam will not be demolished, as indicated in the Background Information Documents previously distributed.

<table>
<thead>
<tr>
<th>I.D.</th>
<th>Activity</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Infrastructure for bulk transportation of flue gas or chemical water</td>
<td>Interception diameter 0.5 mm. Peak throughput of 350 litres per second (less than 50 mm in rainwater)</td>
</tr>
<tr>
<td>10</td>
<td>Infrastructure for transmission &amp; distribution of electricity</td>
<td>Inside urban areas with a capacity of ≥ 275 kilovolts</td>
</tr>
<tr>
<td>11</td>
<td>Construction of lines, cables, bulk distribution culverts</td>
<td>Within a watercourse or within 62 m of watercourse</td>
</tr>
<tr>
<td>12</td>
<td>Infrastructure for storage and disposal of dangerous goods</td>
<td>Maximum capacity of 80 but not exceeding 800 m²</td>
</tr>
<tr>
<td>15</td>
<td>Filling / depositing of material life of 10 years or more</td>
<td>0m³</td>
</tr>
<tr>
<td>16</td>
<td>Separation of infrastructure for the transport of water, sewage or chemical water</td>
<td>Separated by 50m²; through capacity increased by 15% from 50 m³ to 62.5 m³ in rainwater</td>
</tr>
<tr>
<td>17</td>
<td>Separation of facilities for transmission and distribution of electricity</td>
<td>Separated by 800m²; through capacity increased by 30% from 62.5 m³ to 81.25 m³ in rainwater</td>
</tr>
<tr>
<td>18</td>
<td>Combustion of flammable, including expansion or extensions, exceed a specific threshold</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Waste or leachate used for telecommunication broadcasting or video transmission purposes</td>
<td>Fixed on site and previously used for this purpose 0.15 or high Western Cape, inside urban areas</td>
</tr>
</tbody>
</table>
Potential Impacts

Vegetation
- Only natural vegetation located above main inlet of stormwater dam (outside building footprint)
- Site disturbed and used for cultivation of vegetables

Water
- Storage/use of fuel and lubricants – groundwater contamination
- Leaking sewage pipes – contamination of ground/surface water

Stormwater
- Increase in runoff and siltation – increase in hardened surface – system required

Air Pollution
- Dust generated during construction phase
- Burning of any waste during construction
- Operational activities – air pollution generating facilities (coal burners)

Visual Impacts
- Inside Urban Edge next to existing correctional centre
- Buildings & infrastructure can meet architectural guidelines to decrease visual intrusion
- Increased light pollution due to security lighting

Impact on Existing Infrastructure
- Increase in overall infrastructure demand – electricity/traffic/water & sewer pipelines, etc.

Safety & Security
- Security measure must be in place at all times to prevent loitering during construction phase and escape of inmates during operation

Hygiene and Health
- Workshop, ablution, medical & kitchen facilities could pose risk if not properly managed
- Disposal of medical waste

Socio-Economic Impacts
- Contribute to combating overcrowding & rehabilitation of inmates
- ± 600 employment opportunities during operational phase
- Local contractors & service industries will benefit

SPECIALIST STUDIES

Definite:
- Engineering (services and building)
- Archaeological / Heritage (Heritage Western Cape)
- Traffic Impact Assessment

Likely:
- Visual Impact Assessment (Heritage Western Cape)
- Socio-Economic Investigation

EIA PROCESS & TIMEFRAME

Application
- February 2011
- March 2011
- April 2011
- June 2011
- July/August 2011
- August/September 2011
- September 2011
- October 2011

Environmental Impact Assessment
- November 2011
- November/December 2012
- January/February 2012

Assessment of potential impacts
- February/March 2012
- March/April 2012
- May 2012
- June 2012

Approval Appeal Process
- November 2011
- January/February 2012
- May 2012

GET INVOLVED

Public Participation
- Offers YOU – as Interested and Affected Party (I&AP) - the opportunity to learn about the project, raise issues and concerns and provide input for enhanced project benefits.

- Only REGISTERED I&APs will receive regular project information and updates.

- To register:
  - Complete the attendance register; and/or
  - Complete the Comment & Registration sheet; and/or
  - Submit written / digital comment on the project to BolandEnviro

- Awaiting Permit
- Registered I&APs/Commenting Authorities

- Environmental Impact Assessment
- Specialist Studies
- Draft Environmental Impact Report (EIR)
- Public Review (40 days)
- Final Environmental Impact Report (FIR)
- Registered I&APs/Commenting Authorities
- Notice of Environmental Authorisation

- Approval Appeal Process
- December 2011
- January 2012
- February/March 2012
- April 2012
- May 2012
- June 2012
GET INVOLVED

Draft Environmental Scoping Report available for public review at:

- Groenheuwel Public Library (Cnr of Bo Dal Josafat & Bartolomeu Streets, Groenheuwel, Paarl)
- BolandEnviro office (74 Stockenstrom Street, Worcester)
- Website www.BolandEnviro.co.za / project documents

Closing date for registration and/or comments is:

- 9 August 2011

THANK YOU

For more information contact:
Boland Environmental Consultants
Marizanne Vos / Nik Wullschleger at:
Tel: 023 347 0336   Fax: 023 347 5336
Email: comment@BolandEnviro.co.za
P.O. Box 250 Worcester 6849