1. INTRODUCTION

Until now there has not been a consolidated over-arching approach to industrial development within eThekwini Municipality. As a result industrial development has therefore occurred in areas that have been historically zoned for such purposes. Occupation has occurred on an ad hoc basis. As a result strategic spatial planning for industrial activities is required for existing industrial land needs and to encourage future needs and support industrial development in order to maximise the opportunities of potential private investment and to develop robust industrial districts.

In recent times, industrial development has drastically decreased due to greater worldwide market forces. This has severe economic implications as well as generating areas within the city that are subject to decline. It is therefore necessary to support these industries, in the interests of maintaining economic sustainability, and to also generate new areas of industrial activities as an economic stimulator in areas that have little economic opportunities, whilst not losing the opportunity to encourage and make available land provision for growth sectors.

In the event that the DIA airport is dug-out to make way for a new harbour, there will be an urgent need to support port-related activities. Given the limited amount of space available surrounding the port, alternative sites within the city (and possibly beyond) need to be identified. In order to optimise development, these areas must be packaged with available services and infrastructure to attract and direct industrial activities. This will encourage private sector investment as well as provide the city with a marketable product.

It is the objectives of the industrial strategy to:
- Guide industrial development within city
  - Identify gaps in sectors and or identify which sectors to target and their spatial and infrastructural needs
  - Identify available space and the appropriateness of these locations
- Provide motivation for external investment
- Provide motivation for the growth of existing industries
- Fortify “sick” industries offer assistance in business redevelopment
- Identification of actions for implementation of strategy
- Identification of possibilities of offering incentives
- To ascertain the extent and location of industry clustering
- To measure the likely impact of continued Port capacity expansion
- To assess spatial development needs linked to Dube Trade Port
- To formulate long-term spatial development plans which will accommodate industrial growth, encourage clustering benefits, and create a cost-competitive and efficient operating environment
- To formulate a long-term strategy for the period 2010 to 2030 to guide planning and spatial development of the EMA, as well as to identify necessary local government interventions
It is intended that Industrial Spatial Strategy be undertaken in 4 phases.

**Phase 1: Strategic Assessment** (this phase)
- Detailed Land Audit – zoned land
- Analysis of key sectors
- Scenarios
- Identification of future industrial land

**Phase 2: Testing Key Industrial Areas**
- Industrial Strategy Interviews
- Presentations and engagements with municipal departments
- Formulating implementation proposals

**Phase 3: Precinct Planning and Land Packaging**
- Of identified priority areas
- Piloting plans and strategies

**Phase 4: Implementation**

Ongoing: Stakeholder Engagements

2. **SPATIAL SITUATIONAL ANALYSIS**

The certain industries that dominate within the city have tended to cluster. Manufacturing is the most dominant sector of industrial activities. It also is the sector that occupies the most amount of land in the city. Industries that predominate in the eThekwini Municipality’s manufacturing sector are reflected in the below table:

<table>
<thead>
<tr>
<th>Manufacturing Sector</th>
<th>Estimated No. of Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport, Logistics &amp; Shipping</td>
<td>1398</td>
</tr>
<tr>
<td>Marine Services, Shipping &amp; Ship Building</td>
<td>565</td>
</tr>
<tr>
<td>Textiles, Clothing &amp; Footwear</td>
<td>298</td>
</tr>
<tr>
<td>Building Products</td>
<td>280</td>
</tr>
<tr>
<td>Furniture &amp; Bedding</td>
<td>215</td>
</tr>
<tr>
<td>Chemicals</td>
<td>208</td>
</tr>
<tr>
<td>Automotive</td>
<td>86</td>
</tr>
<tr>
<td>Food &amp; Beverages</td>
<td>48</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3215</strong></td>
</tr>
</tbody>
</table>

*Table 1: Predominance of Manufacturing Sector Activities (2007 Estimate)*

Patterns of clustering have occurred usually in mature industrial areas that have historical significance for such activities. For example, Hammarsdale has long been identified with the textiles activities that take place there due to the incentives offered by the city for such sectors. The following significant clusters appear in the city:

- Logistics and Transport - highly concentrated around the port and in Pinetown
- Chemical sector – Pinetown and South Durban Basin
- Furniture and Bedding – Pinetown, Hammarsdale and Umbilo Road
- Textiles, Clothing, Footwear and Leather – Hammarsdale, Umngeni Road and Pinetown

For the purpose of this report, the EMA was split into 5 areas. The South, North, Central, Inner West and Outer West. Each has their own role, identity and development potential with respect to industrial
growth in the city. The following table is based on currently zoned land only and the associated dominant manufacturing sectors.

<table>
<thead>
<tr>
<th>Area</th>
<th>Total (ha)</th>
<th>Occupied</th>
<th>Dominant Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>1045.6</td>
<td>733.9 (70.2%)</td>
<td>Textiles, Clothing &amp; Footwear (43.8%) Furniture &amp; Bedding (11.4%)</td>
</tr>
<tr>
<td>South</td>
<td>1667.3</td>
<td>1541.2 (92%)</td>
<td>Chemicals (22.6%) Automotive (11.3%)</td>
</tr>
<tr>
<td>Central</td>
<td>1540.8</td>
<td>1540.5 (99.99%)</td>
<td>Textiles, Clothing &amp; Footwear (40.0%) Chemicals (12.8%)</td>
</tr>
<tr>
<td>Inner West</td>
<td>1367</td>
<td>1111.8 (81.3%)</td>
<td>Building Products (10.0%) Automotive (10.8%) Textiles, Clothing &amp; Footwear (14.6%) Chemicals (23.8%)</td>
</tr>
<tr>
<td>Outer West</td>
<td>1455.5</td>
<td>547.0 (37.6%)</td>
<td>Textiles, Clothing &amp; Footwear (40.0%) Chemicals (20.0%)</td>
</tr>
</tbody>
</table>

Table 2: Sectors and Zoned Land by Area

The zoned land identified, in areas other than the CDB and SDB, are gross figures and do not take into consideration factors such as DMOSS, steep slopes etc that would affect the amount of developable land. Furthermore, this audit does not take into consideration areas that are not zoned. Areas such as the Back of Airport (DTP and surrounds) and Shongweni have the potential to develop into robust industrial and business parks, but are vacant and unzoned at present.

The table above reflects that the areas with the most potential to accommodate industrial activities lie in the north and the outer west (noting constraints to the release of such land).

3. INDUSTRY TRENDS

As mentioned, there are certain sectors that are well established within the eThekwini Municipality. However, certain of these sectors are subject to market forces which have resulted in a drastic reduction in their performance. Such sectors include the textiles, clothing and footwear industry, the automotive industry as well as the shipbuilding industry to an extent.

Sectors have different spatial and infrastructural needs. It is therefore necessary to anticipate the growth of certain sectors in order to provide appropriate space to meet market requirements. The following table gives an indication of the anticipated spatial forecasts by sector, assuming certain growth rates:
<table>
<thead>
<tr>
<th>Sector</th>
<th>Growth % range assumptions</th>
<th>2008 (Ha)</th>
<th>2012 (Ha)</th>
<th>2016 (Ha)</th>
<th>2020 (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>0% to 4%</td>
<td>3512</td>
<td>3782</td>
<td>4424</td>
<td>5176</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>0% to 5%</td>
<td>733</td>
<td>824</td>
<td>1002</td>
<td>1218</td>
</tr>
<tr>
<td>Services Financial</td>
<td>0% to 7%</td>
<td>21</td>
<td>25</td>
<td>32</td>
<td>43</td>
</tr>
<tr>
<td>Services Other</td>
<td>2% to 7%</td>
<td>119</td>
<td>145</td>
<td>189</td>
<td>248</td>
</tr>
<tr>
<td>Retail/Wholesale</td>
<td>0% to 5%</td>
<td>31</td>
<td>35</td>
<td>42</td>
<td>52</td>
</tr>
<tr>
<td>Transport/Logistics</td>
<td>3% to 8%</td>
<td>803</td>
<td>1013</td>
<td>1378</td>
<td>1875</td>
</tr>
<tr>
<td>Other</td>
<td>0% to 5%</td>
<td>96</td>
<td>108</td>
<td>131</td>
<td>160</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>5315</td>
<td>5932</td>
<td>7198</td>
<td>8772</td>
</tr>
<tr>
<td>4 yr. Spatial increases</td>
<td></td>
<td>617</td>
<td>1266</td>
<td>1574</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Industrial Sector Spatial Forecasts

Growth rate range assumptions in Table 3 are based on a combination of actual rates achieved in the recent past, and expected future trends, provided that the economy maintains its strong long-term growth rate. Allowance has been made in the short-term for the severe economic downturn, which commenced in the second half of 2008. The lower rates in the range apply to 2009 and the first half of 2010.

Should the dig-out port occur, logistics and transport would achieve the highest growth rate and require roughly 2000ha in the long term. Manufacturing would remain the highest space occupier, despite the lower growth rate. It must be noted that the high occupational figures of manufacturing can be attributed to the volume of sectors comprising to the manufacturing industry. Light industrial will also require a fair amount of land.

4. SCENARIO PLANNING

The scenario planning undertaken in this exercise has been based on the potential outcomes of the decisions regarding the port expansion. The economic growth of the city will be enormously affected by port operations. Durban was founded on the port and still remains a port city and therefore these scenarios reflect to what extent industrial development and industrial land is impacted by this.

Three scenarios have been developed. The first scenario assumes no dig out port and no Bayhead expansions. The second scenario assumes only expansions at Bayhead. Finally, the third scenario assumes the development of both the dig out port and Bayhead expansions.

Scenario 1: No dig-outs at Bayhead or DIA
- TEUs maximised at 4.0-4.6m pa
- Minor economic growth experienced close to the port
- Industrial land occupation would take place incrementally and slowly, with little opportunity to develop robust industrial townships
- Provision of land would be to manage existing needs and efficiencies
- Very little private sector interest and investment
- Economic development would be largely as a result of tourism and events
- Unemployment unlikely to decline below 25% of economically active
- Economic growth rate ± 4.0% pa
Scenario 2: Dig-out at Bayhead only
- TEUs increased to 6.5 – 7m pa
- Economic impacts of port expansion are experienced city wide. Pressure to increase cargo handling will increase with areas like Cato Ridge and Back of Airport being of critical significance
- The demand for industrial land would be higher than that of Scenario 1, with timeframes somewhat reduced
- Increased private sector interest – therefore need to establish industrial areas with packaged land becomes necessary
- Unemployment would decline to between 15% and 20% of economically active population
- Long-Term Economic growth rate would be between 5% - 6% pa.

Scenario 3: Dig-out at DIA and Bayhead
- TEUs increased to 10 -15m pa
- Maximum Economic Growth for Durban
- Economic effects spread provincially and even nationally
- Demand for industrial land would be significant with timeframes reduced
- Areas such as Cato Ridge, Back of Airport/DTP and Shongweni become critical
- Necessity to develop available areas that are designated and packaged for industrial activity occupation becomes critical to the sustainability of industrial activities in the city and region
- There will be significant international and private sector interest and investment. Benefits of this are enormous for the unskilled and skilled workforce
- Many jobs would be created and unemployment would decline to 10% or less of the economically active population.
- Long-Term Economic growth in real terms would reach around 7% pa, and possibly higher for certain periods during the development phase

Given the above, its evident that the preferred option is: Scenario 3.

5. UNLOCKING POTENTIAL LAND

Areas of potential for industrial activities within the city largely fall into three typologies; first, key existing areas that require unlocking; second, reorganising key industrial sites and; thirdly, new opportunity areas to unlock.

Existing Vacant Zoned Land
There are several areas within the municipality that have the required/necessary zoning for industrial activities, notwithstanding set constraints that inhibit the release or detract from the demand. Cato Ridge and Hammarsdale are areas with zoned land that require unblocking for industrial activities. The areas have the advantage of vacant, flat land; its strategic location on the N3 Durban-Pietermaritzburg Corridor and market support for development in these areas.

Unblocking this development will require certain initiatives. Such actions include; developing precinct/master plans, improving infrastructural services with transport being of critical importance, and potentially developing incentives to encourage occupation. This require major investment and joint partnerships with government and the private sector.
The phasing ranges from short to long term (5-50 years) as the extent of the area allows for short, medium and long term responses. There is a gross 1797ha of potential available industrial land.

**Reorganising Key Industrial Sites**
The existing organisation of industrial activities is not necessarily the most effective and efficient and deriving maximum value from a limited supply of land. The Back of Port operations will be most affected by the dig-out port and will require major restructuring and reorganisation to maximise the use of this valuable land. It is the foundation of both the Durban-Pietermaritzburg (Gauteng) corridor and the Durban-Richards Bay corridor and also the apex of these corridors.

Should Scenario 3 be selected, 1818ha of land will be considered for restructuring. The phasing of this will occur over the medium term (10-20 years). If the relocation of certain industries is required, a robust incentives strategy will need to be investigated and implemented.

**New Opportunity Areas to Unlock**
With vast tranches of undeveloped and available land, eThekwini has the means of delivering industrial areas that are planned for industrial usage at the outset. Areas in the north, such as Dube Tradeport and the Back of Airport, as well as Shongweni are such examples. The Dube Tradeport is currently under construction, however the details of the supportive activities is yet to be finalised. However, given the compatibility of logistics and ports (air and sea), this area will best be used for these activities. There is a possibility to develop parts of Shongweni as industrial. This can further support port operations.

It is necessary to develop precinct plans that will inform the implementation of infrastructure. This will also promote already packaged land for occupation. It is anticipated that total occupation of the land identified will occur by 2060 – 2080 (considering the economic crises we currently in). The North area has the potential to release 1660ha of land for potential industrial activities.

The diagrams below illustrate the intentions of the eThekwini Municipality’s Industrial Spatial Strategy:
Diagram 1: Land Quantums by Area
6. **Diagram 2: Industry Sectors**

**WAY FORWARD**
In order to continue to drive the Industrial Spatial Strategy, it is necessary to obtain alignment and agreement on both the Industrial Strategy (EDU Report) and this Industrial Spatial Strategy (DPEM Report).

To further advance and conclude of Phase 2 and Phase 3 of the ISS, in summary this will include:

- The execution of questionnaires/interviews with industrial developers and consultants, key industry players including government. This will provide an understanding of:
  - The amounts of land necessary for industrial growth
  - The preferred location of new sites
  - What services will be required
  - What industries are potentially likely to grow
  - The benefits to the community (i.e. jobs, training etc)
- Develop a spatial plan, which arranges industrial activities in the city.
- Formulate a local government steering committee
- Formulate database of existing industrial zoned land, and their existing services
- Identify the appropriate locations for certain sectors and set mechanisms in place to accelerate planning applications.
- Begin to package land for development. Undertake detailed guide plans which will address industrial precinct layouts, services and road infrastructure.
- Testing infrastructure needs and industrial demand for key industrial sites (existing greenfields and new greenfields).

Advancing and concluding Phase 3: Land Packaging and Implementation Strategy, scheduled for approval in 2010.

7. CONCLUSION
The Industrial Spatial Strategy will provide the foundation for industrial growth within eThekwini Municipality. It will provide a marketable product and a city identity which will attract private investors, locally and possible internationally. However, extensive infrastructure is required and land packaged in order to make it accessible to industrial sector investors.

Issues regarding unavailable, inaccessible land and the decline in industrial growth are addressed in the strategy. Various steps that will achieve maximum industrial growth have been discussed in this document.

The strategy is approached in phases that will guide municipal and political actions in the future.